



# Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

#### EASA eRules: aviation rules for the 21st century

Rules and regulations are the core of the European Union civil aviation system. The aim of the **EASA eRules** project is to make them **accessible** in an efficient and reliable way to stakeholders.

**EASA eRules** will be a comprehensive, single system for the drafting, sharing and storing of rules. It will be the single source for all aviation safety rules applicable to European airspace users. It will offer easy (online) access to all rules and regulations as well as new and innovative applications such as rulemaking process automation, stakeholder consultation, cross-referencing, and comparison with ICAO and third countries' standards.

To achieve these ambitious objectives, the **EASA eRules** project is structured in ten modules to cover all aviation rules and innovative functionalities.

The **EASA eRules** system is developed and implemented in close cooperation with Member States and aviation industry to ensure that all its capabilities are relevant and effective.

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#### **DISCLAIMER**

This version is issued by the European Union Aviation Safety Agency (EASA) in order to provide its stakeholders with an updated, consolidated, and easy-to-read publication. It has been prepared by putting together the officially published regulations with the related acceptable means of compliance and guidance material (including the amendments) adopted so far. However, this is not an official publication and EASA accepts no liability for damage of any kind resulting from the risks inherent in the use of this document.



#### **LIST OF REVISIONS**

Published	Reason for revision	
January 2017	First Easy Access Rules document powered by eRules.	
June 2017	To incorporate <u>ED Decision 2017/016/R</u> amending <u>Appendix I to AMC to Part-66</u> 'Aircraft type ratings for Part-66 aircraft maintenance licences'.	
April 2019	To incorporate amending Regulation (EU) 2018/1142, and ED Decision 2019/009/R introducing AMC/GM to the cover regulation and amending AMC/GM to Part-M, Part-145, Part-66, Part-147 and Part-T.	
June 2020	To incorporate the following amending regulations:	
	<ul> <li>Regulation (EU) 2019/1383 introducing in particular Part-ML (Annex Vb),</li> <li>Part-CAMO (Annex Vc) and Part-CAO (Annex Vd)</li> </ul>	
	- Corrigendum to Regulation (EU) 2019/1383	
	- <u>Regulation (EU) 2019/1384</u>	
	- <u>Regulation (EU) 2020/270</u>	
	To incorporate the following ED Decisions:	
	<ul> <li>ED Decision 2019/024/R amending Appendix I to AMC to Part-66 'Aircraft type ratings for Part-66 aircraft maintenance licences'.</li> </ul>	
	<ul> <li>ED Decision 2020/002/R amending AMC/GM to Part-M, Part-145, Part-66, Part-147, Part-T and to the cover regulation and introducing AMC/GM to Part-ML, Part-CAMO and Part-CAO</li> </ul>	
February 2021	To incorporate amending Regulation (EU) $2020/1159$ as regards the introduction of new additional airworthiness requirements.	
	To incorporate the related <u>ED Decision 2020/023/R</u> .	
July 2021	To incorporate amending Regulation (EU) 2021/700 as regards the maintenance data and the installation of certain aircraft components during maintenance.  To incorporate the related ED Decision 2021/009/R.	



#### NOTE FROM THE EDITOR

The content of this document is arranged as follows: the cover regulation (recitals and articles) and the implementing rule (IR) points appear first, followed by the related acceptable means of compliance (AMC) and guidance material (GM) paragraph(s).

All elements (i.e. cover regulation, IRs, AMC, and GM) are colour-coded and can be identified according to the illustration below. The Commission regulation or EASA Executive Director (ED) decision through which the point or paragraph was introduced or last amended is indicated below the point or paragraph title(s) *in italics*.

# Cover regulation article Implementing rule Regulation Acceptable means of compliance ED Decision Guidance material ED Decision

Note 1: In some instances (e.g. <u>145.A.30</u> Personnel requirements), the source is indicated at the level of point paragraph (e.g. 145.A.30(a)).

Note 2: Amendments introduced by Regulations (EU) 2021/700 with the applicability date of 18 May 2022 and the related AMC & GM provisions introduced by ED Decisions 2021/009/R are marked with a different colour.

This document will be updated regularly to incorporate further amendments.

The format of this document has been adjusted to make it user-friendly and for reference purposes. Any comments should be sent to <a href="mailto:erules@easa.europa.eu">erules@easa.europa.eu</a>.



#### **INCORPORATED AMENDMENTS**

#### **IMPLEMENTING RULES (IRS) (COMMISSION REGULATIONS)**

Incorporated Commission Regulation	Affected Part	Regulation amendment	Applicability date <sup>1</sup>
Regulation (EU) No 1321/2014	Annex I (Part-M)	Recast	06/01/2015
	Annex II (Part-145)		
	Annex III (Part-66)		
	Annex IV (Part-147)		
Regulation (EU) 2015/1088	Annex I (Part-M)	First amending	27/07/2015
	Annex II (Part-145)	regulation	
	Annex IV (Part-147)		
Regulation (EU) 2015/1536	Annex I (Part-M)	Second amending	25/08/2016
	Annex II (Part-145)	regulation	
	Annex III (Part-66)		
	Annex Va (Part-T)		
Regulation (EU) 2018/1142	Annex I (Part-M)	Third amending	05/03/2019*
	Annex II (Part-145)	regulation	
	Annex III (Part-66)		* Refer to Article 8 of the cover regulation
	Annex IV (Part-147)		
	Annex Va (Part-T)		
Regulation (EU) 2019/1383	Annex I (Part-M)	Fourth amending	24/03/2020
and	Annex II (Part-145)	regulation	
Corrigendum to Regulation (EU) 2019/1383	Annex III (Part-66)		
2013/1383	Annex IV (Part-147)		
	Annex Va (Part-T)		
	Annex Vb (Part-ML)		
	Annex Vc (Part-CAMO)		
	Annex Vd (Part-CAO)		
Regulation (EU) 2019/1384	Annex I (Part-M)	Fifth amending	24/03/2020
	Annex Vb (Part-ML)	regulation	
Regulation (EU) 2020/270	Annex I (Part-M)	Sixth amending regulation	24/03/2020
	Annex II (Part-145)		
	Annex III (Part-66)		
	Annex IV (Part-147)		
	Annex Vb (Part-ML)		
	Annex Vc (Part-CAMO)		
	Annex Vd (Part-CAO)		

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<sup>&</sup>lt;sup>1</sup> This is the date of application (i.e. the date from which an act or a provision in an act produces its full legal effects) as defined in the relevant cover regulation article. Some provisions of the regulations though may be applicable at a different date (e.g. deferred applicability) as specified in the relevant article of the regulation. Besides, there may be some opt-outs (derogations from certain provisions) notified by the Member States.



Incorporated Commission Regulation	Affected Part	Regulation amendment	Applicability date
Regulation (EU) 2020/1159	Annex I (Part-M)	Seventh amending regulation	26/02/2021
Regulation (EU) 2021/700	Annex I (Part-M)	Eighth amending regulation	18/05/2021 18/05/2022
	Annex II (Part-145)		18/05/2022
	Annex III (Part-66)		18/05/2021
	Annex Vb (Part-ML)		18/05/2021 18/05/2022
	Annex Vd (Part-CAO)		18/05/2021

#### Notes:

To access the official versions, please click on the hyperlinks provided above.

Amending regulations issued to correct language versions other than English (e.g. Regulation (EU) 2017/334) are not considered in this document.



#### **AMC/GM** TO IRS (ED DECISIONS)

Incorporated ED Decision	Affected AMC/GM	AMC/GM Issue No, Amendment No	Applicability date
ED Decision 2015/029/R	AMC/GM to Annex I (Part-M)	Issue 2 (Recast)	18/12/2015
	AMC/GM to Annex II (Part-145)		
	AMC/GM to Annex III (Part-66)		
	AMC/GM to Annex IV (Part-147)		
ED Decision 2016/011/R	AMC/GM to Annex I (Part-M)	Issue 2, Amendment 1	25/08/2016
	AMC/GM to Annex II (Part-145)		
	AMC/GM to Annex III (Part-66)		
	AMC/GM to Annex Va (Part-T)	Issue 1	
ED Decision 2017/016/R	AMC/GM to Annex III (Part-66)	Issue 2, Amendment 2	02/06/2017
ED Decision 2019/009/R	AMC/GM to articles	Issue 1	05/03/2019
	AMC/GM to Annex I (Part-M)	Issue 2, Amendment 2	
	AMC/GM to Annex II (Part-145)		
	AMC/GM to Annex III (Part-66)	Issue 2, Amendment 3	
	AMC/GM to Annex IV (Part-147)	Issue 2, Amendment 1	
	AMC/GM to Annex Va (Part-T)	Issue 1, Amendment 1	
ED Decision 2019/024/R	AMC & GM to Annex III (Part-66)	Issue 2, Amendment 4	19/11/2019
ED Decision 2020/002/R	AMC/GM to articles	Issue 1, Amendment 1	24/03/2020
	AMC/GM to Annex I (Part-M)	Issue 2, Amendment 3	
	AMC/GM to Annex II (Part-145)	Issue 2, Amendment 3	
	AMC/GM to Annex III (Part-66)	Issue 2, Amendment 5	
	AMC/GM to Annex IV (Part-147)	Issue 2, Amendment 2	
	AMC/GM to Annex Va (Part-T)	Issue 1, Amendment 2	
	AMC/GM to Annex Vb (Part-ML)	Issue 1	
	AMC/GM to Annex Vc (Part-CAMO)	Issue 1	
	AMC/GM to Annex Vd (Part-CAO)	Issue 1	
ED Decision 2020/023/R	AMC/GM to Annex I (Part-M)	Issue 2, Amendment 4	26/02/2021
ED Decision 2021/009/R	AMC/GM to Annex I (Part-M)	Issue 2, Amendment 5	16/06/2021 18/05/2022
	AMC/GM to Annex II (Part-145)	Issue 2, Amendment 4	16/06/2021 18/05/2022
	AMC/GM to Annex Va (Part-T)	Issue 1, Amendment 3	16/06/2021
	AMC/GM to Annex Vb (Part-ML)	Issue 1, Amendment 1	16/06/2021 18/05/2022
	AMC/GM to Annex Vc (Part-CAMO)	Issue 1, Amendment 1	16/06/2021
	AMC/GM to Annex Vd (Part-CAO)	Issue 1, Amendment 1	16/06/2021

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#### **COVER REGULATION**

COMMISSION REGULATION (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks

Regulation (EU) No 1321/2014

#### THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC¹, and in particular Article 5(5) and 6(3) thereof,

#### Whereas:

- (1) Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks<sup>2</sup> has been substantially amended several times<sup>3</sup>. Since further amendments are to be made, it should be recast in the interests of clarity.
- (2) Regulation (EC) No 216/2008 establishes common essential requirements to provide for a high uniform level of civil aviation safety and environmental protection; it requires the Commission to adopt the necessary implementation rules to ensure their uniform application; it establishes the European Aviation Safety Agency (hereinafter referred to as the 'Agency') to assist the Commission in the development of such implementing rules.
- (3) It is necessary to lay down common technical requirements and administrative procedures to ensure the continuing airworthiness of aeronautical products, parts and appliances subject to Regulation (EC) No 216/2008.
- (4) Organisations and personnel involved in the maintenance of products, parts and appliances should be required to comply with certain technical requirements in order to demonstrate their capability and means of discharging their obligations and associated privileges; the Commission is required to lay down measures to specify conditions of issuing, maintaining, amending, suspending or revoking certificates attesting such compliance.
- (5) The need to ensure uniformity in the application of common technical requirements in the field of continuing airworthiness of aeronautical parts and appliances requires that common procedures be followed by competent authorities to assess compliance with these requirements; the Agency should develop certification specifications to facilitate the necessary regulatory uniformity.
- (6) It is necessary to recognise the continuing validity of certificates issued before entry into force of Regulation (EC) No 2042/2003, in accordance with Article 69 of Regulation (EC) No 216/2008.

<sup>&</sup>lt;sup>1</sup> OJ L 79, 19.3.2008, p. 1.

<sup>&</sup>lt;sup>2</sup> OJ L 315, 28.11.2003, p. 1.

See Annex V.



- (7) Article 5 of Regulation (EC) No 216/2008 dealing with airworthiness was extended to include the elements of operational suitability evaluation into the implementing rules for type-certification.
- (8) The European Aviation Safety Agency (the 'Agency') found that it was necessary to amend Commission Regulation (EU) No 748/2012<sup>1</sup> in order to allow the Agency to approve operational suitability data as part of the type-certification process.
- (9) The operational suitability data should include mandatory training elements for type rating training of maintenance certifying staff. Those elements should be the basis for developing type training courses.
- (10) The requirements related to the establishment of certifying staff type rating training courses need to be amended to refer to the operational suitability data.
- (11) The Agency prepared draft implementing rules on the concept of operational suitability data and submitted them as an opinion<sup>2</sup> to the Commission in accordance with Article 19(1) of Regulation (EC) No 216/2008.
- (12) The measures provided by this Regulation are in accordance with the Opinion of the European Aviation Safety Agency Committee<sup>3</sup> established by Article 65(1) of Regulation (EC) No 216/2008,

HAS ADOPTED THIS REGULATION:

#### Article 1 Subject-matter and scope

Regulation (EU) 2015/1536

This Regulation establishes common technical requirements and administrative procedures to ensure:

- (a) the continuing airworthiness of aircraft, including any component for installation thereto, which are:
  - (i) registered in a Member State, unless their regulatory safety oversight has been delegated to a third country and they are not used by an EU operator; or
  - (ii) registered in a third country and used by an EU operator, where their regulatory safety oversight has been delegated to a Member State;
- (b) compliance with the essential requirements set out in Regulation (EC) No 216/2008 for continuing airworthiness of aircraft registered in a third country and components for installation thereon for which their regulatory safety oversight has not been delegated to a Member State that are dry leased-in by a licence air carrier in accordance with Regulation (EC) No 1008/2008 of the European Parliament and the Council<sup>4</sup>.

<sup>&</sup>lt;sup>1</sup> OJ L 224, 21.8.2012, p. 1.

Opinion No 07/2011 of the European Aviation Safety Agency of 13th December 2011, available at <a href="http://easa.europa.eu/agency-measures/opinions.php">http://easa.europa.eu/agency-measures/opinions.php</a>

Opinion of the European Aviation Safety Agency Committee, 23 September 2003.

<sup>&</sup>lt;sup>4</sup> Regulation (EC) No 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community (OJ L 293, 31.10.2008, p. 3).



#### **Article 2 Definitions**

Regulation (EU) 2015/1536

Within the scope of Regulation (EC) No 216/2008, the following definitions shall apply:

- (a) 'aircraft' means any machine that can derive support in the atmosphere from the reactions of the air other than reactions of the air against the earth's surface;
- (b) 'certifying staff' means personnel responsible for the release of an aircraft or a component after maintenance;
- (c) 'component' means any engine, propeller, part or appliance;
- (d) 'continuing airworthiness' means all of the processes ensuring that, at any time in its operating life, the aircraft complies with the airworthiness requirements in force and is in a condition for safe operation;
- (e) 'JAA' means 'Joint Aviation Authorities.';
- (f) 'JAR' means 'Joint Aviation Requirements';
- (g) 'commercial air transport (CAT) operation' means an aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration;
- (h) 'maintenance' means any one or combination of the following activities: overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft or component, with the exception of pre-flight inspection;
- (i) 'organisation' means a natural person, a legal person or part of a legal person. Such an organisation may be established at more than one location whether or not within the territory of the Member States;
- (j) 'pre-flight inspection' means the inspection carried out before flight to ensure that the aircraft is fit for the intended flight;
- (k) 'ELA1 aircraft' means the following manned European light aircraft:
  - (i) an aeroplane with a maximum take-off mass (MTOM) of 1 200 kg or less that is not classified as complex motor-powered aircraft;
  - (ii) a sailplane or powered sailplane of 1 200 kg MTOM or less;
  - (iii) a balloon with a maximum design lifting gas or hot air volume of not more than 3 400 m<sup>3</sup> for hot air balloons, 1 050 m<sup>3</sup> for gas balloons, 300 m<sup>3</sup> for tethered gas balloons;
  - (iv) an airship designed for not more than four occupants and a maximum design lifting gas or hot air volume of not more than 3 400 m³ for hot air airships and 1 000 m³ for gas airships;
- (ka) 'ELA2 aircraft' means the following manned European Light Aircraft:
  - (i) an aeroplane with a Maximum Take-off Mass (MTOM) of 2 000 kg or less that is not classified as complex motor-powered aircraft;
  - (ii) a sailplane or powered sailplane of 2 000 kg MTOM or less;
  - (iii) a balloon;
  - (iv) a hot air ship;
  - (v) a gas airship complying with all of the following characteristics:
    - 3 % maximum static heaviness,



- non-vectored thrust (except reverse thrust),
- conventional and simple design of structure, control system and ballonet system, and
- non-power assisted controls;
- (vi) a Very Light Rotorcraft;
- (I) 'LSA aircraft' means a light sport aeroplane which has all of the following characteristics:
  - (i) a Maximum Take-off Mass (MTOM) of not more than 600 kg;
  - (ii) a maximum stalling speed in the landing configuration (VSO) of not more than 45 knots Calibrated Airspeed (CAS) at the aircraft's maximum certificated take-off mass and most critical centre of gravity;
  - (iii) a maximum seating capacity of no more than two persons, including the pilot;
  - (iv) a single, non-turbine engine fitted with a propeller;
  - (v) a non-pressurised cabin;
- (m) 'principal place of business' means the head office or the registered office of the undertaking within which the principal financial functions and operational control of the activities referred to in this Regulation are exercised;
- (n) 'critical maintenance task' means a maintenance task that involves the assembly or any disturbance of a system or any part on an aircraft, engine or propeller that, if an error occurred during its performance, could directly endanger the flight safety;
- (o) 'commercial specialised operations' means those operations subject to the requirements of Part-ORO, Subpart-SPO set out in Annex III to Commission Regulation (EU) No 965/2012<sup>1</sup>;
- (p) 'limited operations' means the operations of other-than-complex motor-powered aircraft for:
  - (i) cost-shared flights by private individuals, on the condition that the direct cost is shared by all the occupants of the aircraft, pilot included and the number of persons sharing the direct costs is limited to six;
  - (ii) competition flights or flying displays, on the condition that the remuneration or any valuable consideration given for such flights is limited to recovery of direct costs and a proportionate contribution to annual costs, as well as prizes of no more than a value specified by the competent authority;
  - (iii) introductory flights, parachute dropping, sailplane towing or aerobatic flights performed either by a training organisation having its principal place of business in a Member State and approved in accordance with Commission Regulation (EU) No 1178/2011², or by an organisation created with the aim of promoting aerial sport or leisure aviation, on the condition that the aircraft is operated by the organisation on the basis of ownership or dry lease, that the flight does not generate profits distributed outside of the organisation, and that whenever non-members of the organisation are involved, such flights represent only a marginal activity of the organisation;

Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1).

Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 311, 25.11.2011, p. 1).



For the purpose of this Regulation, 'limited operations' are not considered as CAT operations or commercial specialised operations;

- (q) 'introductory flight' means 'introductory flight' as defined in Article 2(9) of Regulation (EU) No 965/2012;
- (r) 'competition flight' means 'competition flight' as defined in Article 2(10) of Regulation (EU) No 965/2012;
- (s) 'flying display' means 'flying display' as defined in Article 2(11) of Regulation (EU) No 965/2012.

#### **Article 3 Continuing airworthiness requirements**

Regulation (EU) 2021/700

- The continuing airworthiness of aircraft referred to in point (a) of Article 1 and components for installation thereon shall be ensured in accordance with the requirements of Annex I (Part-M), except for aircraft listed in the first subparagraph of paragraph 2 to which the requirements of Annex Vb (Part-ML) shall apply.
- 2. The requirements of Annex Vb (Part-ML) shall apply to the following other than complex motor-powered aircraft:
  - (a) aeroplanes of 2 730 kg maximum take-off mass or less;
  - (b) rotorcraft of 1 200 kg maximum take-off mass or less, certified for a maximum of up to 4 occupants;
  - (c) other ELA2 aircraft.

Where aircraft referred to points (a), (b) and (c) of the first subparagraph is listed in the air operator certificate of an air carrier licensed in accordance with Regulation (EC) No 1008/2008, the requirements of Annex I (Part-M) shall apply.

- 3. In order to be listed in the air operator certificate of an air carrier licensed in accordance with Regulation (EC) No 1008/2008, aircraft referred to in points (a), (b) and (c) of the first subparagraph of paragraph 2 shall comply with all of the following requirements:
  - (a) its aircraft maintenance programme has been approved by the competent authority in accordance with point M.A.302 of Annex I (Part-M);
  - (b) due maintenance required by the maintenance programme referred to in point (a) has been performed and certified in accordance with point <a href="145.A.48">145.A.48</a> and <a href="145.A.50">145.A.50</a> of Annex II (Part-145);
  - (c) an airworthiness review has been performed and a new airworthiness review certificate has been issued in accordance with point M.A.901 of Annex I (Part-M).
- 4. By way of derogation from paragraph 1 of this Article, the continuing airworthiness of aircraft referred to in point (a) of Article 1, for which a permit to fly has been issued, shall be ensured on the basis of the specific continuing airworthiness arrangements defined in the permit to fly issued in accordance with Annex I (Part-21) to Commission Regulation (EU) No 748/2012<sup>1</sup>.
- 5. Aircraft maintenance programmes for aircraft referred to in point (a) of Article 1 that comply with the requirements specified in point M.A.302 of Annex I (Part-M) applicable before 24 March 2020 shall be deemed to comply with the requirements specified in point M.A.302 of

Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 224, 21.8.2012, p. 1)



- Annex I (Part-M) or point ML.A.302 of Annex Vb (Part-ML), as applicable, in accordance with paragraphs 1 and 2.
- 6. Operators shall ensure the continuing airworthiness of aircraft referred to in point (b) of Article 1 and components for installation thereon in accordance with the requirements of Annex Va (Part-T).
- 7. The continuing airworthiness of aeroplanes with a maximum certificated take-off mass at or below 5 700 kg which are equipped with multiple turboprop engines shall be ensured in accordance with the requirements applicable to other than complex motor-powered aircraft as set out in points M.A.201, M.A.301, M.A.302, M.A.601 and M.A.803 of Annex I (Part-M), point 145.A.30 of Annex II (Part-145), points 66.A.5, 66.A.30, 66.A.70, Appendix V and VI of Annex III (Part-66), point CAMO.A.315 of Annex Vc (Part-CAMO), point CAO.A.010 and Appendix I of Annex Vd (Part-CAO) to the extent that they apply to other than complex motor-powered aircraft.



# GM Articles 3 and 4 Continuing airworthiness requirements and approvals for organisations involved in the continuing airworthiness

ED Decision 2020/002/R

In accordance with Articles 3 and 4, as well as M.A.201 and ML.A.201, the following table provides a summary of the applicability of the Annexes to Regulation (EU) No 1321/2014 related to continuing airworthiness requirements and organisations involved therein.

		Non-licenced air carrier						Licenced air carrier <sup>1</sup>	
Non		Non-commerc	cial	Commercial <sup>2</sup>			Licenced air carrier		
		Non-CMPA		СМРА	Non-CMPA		СМРА	Non-CMPA	CMPA <sup>3</sup>
		'Light'⁴	Non-'Light'	CIVIPA	'Light'	Non-'Light'	CIVIPA	NOII-CIVIPA	CIVIPA
Part-M (Annex I)		N/A	Part-M mandatory		N/A	Part-M mandatory			
Part-ML (Annex Vb)		Part-ML mandatory		N/A	Part-ML mandatory		N/A		
Part-CAMO	(Annex Vc)	Individual C		Part-CAMO mandatory	CAO-CAM <sup>6</sup>		Part-CAMO mandatory		
Part-CAO	for CA management (CAO-CAM)	or CAO-C/ or CAM		N/A		or CAMO		N/A	
(Annex Vd)	for maintenance (CAO-M)	Individual maintenance <sup>7</sup>		N/A	CAO-M		N/A		
Part-145 (Annex II)		or Part-145		Part-145 mandatory	or Part-145		Part-145 mandatory		

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<sup>&</sup>lt;sup>1</sup> Air carrier licensed in accordance with Regulation (EC) No 1008/2008.

<sup>2</sup> Commercial = balloon operated under Subpart-ADD of Part-BOP or sailplane operated under Subpart-DEC of Part-SAO or other aircraft, not operated under Part-NCO; includes commercial ATO and commercial DTO

CMPA = Complex motor-powered aircraft, ref. Article 3(j) of Regulation (EC) No 216/2008.

<sup>4 &#</sup>x27;Light' a/c (not formal denomination) = Aeroplanes up to 2 730 kg MTOM, rotorcraft up to 1 200 kg MTOM / max 4 occupants, and other ELA2 aircraft.

<sup>&</sup>lt;sup>5</sup> Individual CAM (not formal denomination) = continuing airworthiness of the a/c managed by the owner under its own responsibility.

<sup>6</sup> CAO-CAM (not formal denomination) = Part-CAO organisation with continuing airworthiness management privilege.

Individual maintenance (not formal denomination) = maintenance released by pilot-owner or independent certifying staff.

<sup>8</sup> CAO-M (not formal denomination) = Part-CAO organisation with maintenance privilege.



# Article 4 Approvals for organisations involved in the continuing airworthiness [of aircraft]

Regulation (EU) 2021/700

- 1. Organisations involved in the continuing airworthiness of aircraft and components for installation thereon, including maintenance, shall be approved, upon their request, by the competent authority in accordance with the requirements of Annex II (Part-145), Annex Vc (Part-CAMO) or Annex Vd (Part-CAO), as applicable to the respective organisations.
- 2. By way of derogation from paragraph 1, until 24 September 2020 organisations may, upon their request, be issued approvals by the competent authority in accordance with Subpart F and Subpart G of Annex I (Part-M). All approvals issued in accordance with Subpart F and Subpart G of Annex I (Part-M) shall be valid until 24 March 2022.
- 3. Maintenance organisation approval certificates issued or recognised by a Member State in accordance with the certification specification JAR-145 referred to in Annex II to Council Regulation (EEC) No 3922/91¹ and valid before 29 November 2003 shall be deemed to have been issued in accordance with the requirements of Annex II (Part-145) to this Regulation.
- 4. Organisations that hold a valid organisation approval certificate issued in accordance with Subpart F or Subpart G of Annex I (Part-M) or with Annex II (Part-145) shall, upon their request, be issued by the competent authority a Form 3-CAO as set out in <a href="Appendix I">Appendix I</a> to Annex Vd (Part-CAO) and thereafter be overseen by the competent authority in accordance with Annex Vd (Part-CAO).

The privileges of such an organisation under the approval issued in accordance with Annex Vd (Part-CAO) shall be the same as privileges under the approval issued in accordance with Subpart F or Subpart G of Annex I (Part-M) or with Annex II (Part-145). However, those privileges shall not exceed the privileges of an organisation referred to in Section A of Annex Vd (Part-CAO).

By way of derogation from point <u>CAO.B.060</u> of Annex Vd (Part-CAO), until 24 March 2022, the organisation may correct any findings of non-compliance related to requirements introduced by Annex Vd (Part-CAO) which are not included in Subpart F or Subpart G of Annex I (Part-M) or in Annex II (Part-145).

If after 24 March 2022 the organisation has not closed these findings, the approval certificate shall be revoked, limited or suspended in whole or in part.

5. Organisations that hold a valid continuing airworthiness management organisation approval certificate issued in accordance with Subpart G of Annex I (Part-M) shall, upon their request, be issued by the competent authority an <a href="EASA Form 14">EASA Form 14</a> approval certificate in accordance with Annex Vc (Part-CAMO) and thereafter be overseen by the competent authority in accordance with Annex Vc (Part-CAMO).

By way of derogation from point <u>CAMO.B.350</u> of Annex Vc (Part-CAMO), until 24 March 2022, the organisation may correct any findings of non-compliance related to requirements introduced by Annex Vc (Part-CAMO) and not included in Subpart G of Annex I (Part-M).

If after 24 March 2022 the organisation has not closed these findings, the approval certificate shall be revoked, limited or suspended in whole or in part.

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<sup>&</sup>lt;sup>1</sup> Council Regulation (EEC) No 3922/91 of 16 December 1991 on the harmonization of technical requirements and administrative procedures in the field of civil aviation (OJ L 373, 31.12.1991, p. 4).



Certificates and aircraft maintenance programme approvals issued pursuant to Regulation (EU)
 No 1321/2014 as applicable before 24 March 2020 shall be deemed to have been issued in
 accordance with this Regulation.

# GM Article 4(1) Approvals for organisations involved in the continuing airworthiness

ED Decision 2020/002/R

In addition to the Annex I (Part-M) or Annex Vb (Part-ML) provisions directly referred to in Annex II (Part-145) or Annex Vd (Part-CAO) (such as reference to point M.A.304 in 145.A.48 or point ML.A.501 in CAO.A.050), the following requirements shall also be considered by these organisations:

- M.A.201(c) or ML.A.201(c) Responsibilities,
- M.A.403(b) or ML.A.403(b) Aircraft defects.

#### **Article 5 Certifying staff**

Regulation (EU) 2021/700

- 1. Certifying staff shall be qualified in accordance with the requirements of Annex III (Part-66), except as provided for in points M.A.606(h), M.A.607(b), M.A.801(c) and M.A.803 of Annex I (Part-M), in points ML.A.801(c) and ML.A.803 of Annex Vb (Part-ML), CAO.A.040(b) and CAO.A.040(c) of Annex Vd (Part-CAO) and in points 145.A.30(j) of and Appendix IV to Annex II (Part-145).
- 2. Any aircraft maintenance licence and, if any, the technical limitations associated with that licence, issued or recognised by a Member State in accordance with the JAA requirements and procedures and valid at the time of entry into force of Regulation (EC) No 2042/2003, shall be deemed to have been issued in accordance with this Regulation.
- 3. Certifying staff holding a licence issued in accordance with <a href="Annex III (Part-66">Annex III (Part-66</a>) in a given category/sub-category are deemed to have the privileges described in point <a href="66.A.20(a)">66.A.20(a)</a> of the same Annex corresponding to such a category/sub-category. The basic knowledge requirements corresponding to these new privileges shall be deemed as met for the purpose of extending such licence to a new category/sub-category.
- 4. Certifying staff holding a licence including aircraft which do not require an individual type rating may continue to exercise his/her privileges until the first renewal or change, where the licence shall be converted following the procedure described in point 66.B.125 of Annex III (Part-66) to the ratings defined in point 66.A.45 of the same Annex.
- 5. Conversion reports and Examination credit reports complying with the requirements applicable before Regulation (EU) No 1149/2011 applied shall be deemed to be in compliance with this Regulation.
- 6. Until specific requirements for certifying staff for components are added to this Regulation, the requirements laid down in the national laws in force in the relevant Member State shall continue to apply, except for maintenance organisations located outside the Union where the requirements shall be approved by the Agency.



#### **Article 6 Training organisation requirements**

Regulation (EU) No 1321/2014

- 1. Organisations involved in the training of personnel referred to in <u>Article 5</u> shall be approved in accordance with <u>Annex IV (Part-147)</u> to be entitled:
  - (a) to conduct recognised basic training courses; and/or
  - (b) to conduct recognised type training courses; and
  - (c) to conduct examinations; and
  - (d) to issue training certificates.
- 2. Any maintenance training organisation approval issued or recognised by a Member State in accordance with the JAA requirements and procedures and valid at the time of entry into force of Regulation (EC) No 2042/2003 shall be deemed to have been issued in accordance with this Regulation.
- 3. Type training courses approved before the approval of the minimum syllabus of certifying staff type rating training in the operational suitability data for the relevant type in accordance with Regulation (EU) No 748/2012 shall include the relevant elements defined in the mandatory part of that operational suitability data not later than 18 December 2017 or within two years after the operational suitability data was approved, whichever is the latest.

#### Article 7

Regulation (EU) No 1321/2014

Regulation (EC) No 2042/2003 is repealed.

References to the repealed Regulation shall be construed as references to this Regulation and shall be read in accordance with the correlation table in Annex VI.

#### **Article 7a Competent authorities**

Regulation (EU) 2019/1383

- 1. Where a Member State designates more than one entity as competent authority with the necessary powers and allocated responsibilities for the certification and oversight of persons and organisations subject to this Regulation, the following requirements shall be complied with:
  - (a) the areas of competence of each competent authority shall be clearly defined, in particular in terms of responsibilities and geographic limitations;
  - (b) coordination shall be established between those authorities in order to ensure effective certification and oversight of all organisations and persons subject to this Regulation within their respective remits.
- 2. Member States shall ensure that the personnel of their competent authorities do not perform certification and oversight activities when there are indications that this could result, directly or indirectly, in a conflict of interest, in particular when relating to family or financial interest.
- 3. Where necessary to carry out certification or oversight tasks under this Regulation, the competent authorities shall be empowered to:
  - (a) examine the records, data, procedures, and any other material relevant to the execution of the certification and/or oversight tasks;
  - (b) make copies or extracts from such records, data, procedures and other material;



- (c) ask for an oral explanation on-site from any of the personnel of those organisations;
- (d) enter relevant premises, operating sites or means of transport owned or used by those persons;
- (e) perform audits, investigations, assessments, inspections, including unannounced inspections, in respect of those organisations;
- (f) take or initiate enforcement measures as appropriate.
- 4. The powers referred to in paragraph 3 shall be exercised in compliance with the legal provisions of the relevant Member State.

#### **Article 8 Entry into force**

Regulation (EU) 2021/700

- 1. This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.
- 2. By way of derogation from paragraph 1, Member States may elect not to apply:
  - (a) for the maintenance of piston-engine non-pressurised aeroplanes of 2000 kg MTOM and below not involved in commercial air transport, until 28 September 2014, the requirement to have certifying staff qualified in accordance with <a href="Annex III">Annex III</a> (Part-66) contained in the following provisions:
    - points <u>M.A.606(g)</u> and <u>M.A.801(b)2</u> of <u>Annex I (Part-M)</u>,
    - points <u>145.A.30(g)</u> and (h) of <u>Annex II (Part-145)</u>;
  - (b) [Deleted]
  - (c) for aircraft registered in a third country and dry leased-in by air carriers licenced in accordance with Regulation (EC) No 1008/2008, until 25 August 2017, the requirements of Annex Va.
- 2a. By way of derogation from paragraph 1, the requirements for aircraft used for commercial specialised operations and CAT other than those by air carriers licenced in accordance with Regulation (EC) No 1008/2008, set out in Regulation (EU) No 965/2012, as amended by Regulation (EU) No 379/2014<sup>1</sup>, shall apply from 21 April 2017.

#### Until that time:

- The provisions of Annex I, point M.A.201(f) shall apply to complex motor-powered aircraft used by operators requested by a Member State to hold a certificate for commercial operations other than licence air carriers in accordance with Regulation (EC) No 1008/2008 and to commercial ATOs;
- The provisions of Annex I, point <u>M.A.201(h)</u> shall apply to other than complex motor-powered aircraft, used by operators requested by a Member State to hold a certificate for commercial operations other than licence air carriers in accordance with Regulation (EC) No 1008/2008 and to commercial ATOs;

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Commission Regulation (EU) No 379/2014 of 7 April 2014 amending Commission Regulation (EU) No 965/2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 123, 24.4.2014, p. 1).



- The provisions of Annex I, point <u>M.A.306(a)</u> shall apply to aircraft used by licence air carriers in accordance with Regulation (EC) No 1008/2008 and aircraft used by operators requested by a Member State to hold a certificate for commercial operations;
- The provisions of Annex I, point <u>M.A.801(c)</u> shall apply to ELA1 not used by licence air carriers in accordance with Regulation (EC) No 1008/2008 and not used by commercial ATOs;
- The provisions of Annex I, point M.A.803(b) shall apply to non-complex motor-powered aircraft of 2730 kg MTOM and below, sailplane, powered sailplane or balloon, not used by licence air carriers in accordance with Regulation (EC) No 1008/2008, or by operators requested by a Member State to hold a certificate for commercial operations, or by commercial ATOs;
- The provisions of Annex I, point M.A.901(g) shall apply to ELA1 aircraft not used by licence air carriers in accordance with Regulation (EC) No 1008/2008, or by operators requested by a Member State to hold a certificate for commercial operations, or by commercial ATOs.
- 3. When a Member State makes use of the provisions of paragraph 2 it shall notify the Commission and the Agency.
- 4. For the purpose of time limits contained in points <u>66.A.25</u>, <u>66.A.30</u> and <u>Appendix III of Annex III (Part-66)</u> related to basic knowledge examinations, basic experience, theoretical type training and examinations, practical training and assessment, type examinations and on the job training completed before Regulation (EU) No 1149/2011 applied, the origin of time shall be the date by which Regulation (EU) No 1149/2011 applied.
- 5. [Deleted]
- 6. By way of derogation from paragraph 1:
  - (a) competent authorities or, where applicable, organisations may continue to issue certificates, previous issue, as laid down in <a href="Appendix III to Annex I (Part-M)">Appendix III to Annex I (Part-M)</a> or Appendix II and <a href="Appendix III to Annex IV (Part-147">Appendix III to Annex IV (Part-147)</a> to Regulation (EU) No 1321/2014, in force prior to 27 July 2015, until 31 December 2015.
  - (b) certificates issued before 1 January 2016 remain valid until they are changed, suspended or revoked.



#### ENTRY INTO FORCE OF COMMISSION REGULATION (EU) 2018/1142

Regulation (EU) 2018/1142 (Article 2)

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 5 March 2019.

However, [...] for the maintenance of ELA1 aeroplanes not involved in CAT operations and of aircraft other than aeroplanes and helicopters:

- (a) the requirement for the competent authority to issue aircraft maintenance licences in accordance with <a href="Annex III">Annex III</a> (Part-66), as new or as converted, pursuant to point <a href="66.A.70">66.A.70</a> of that Annex, shall apply from 1 October 2019;
- (b) the requirement for certifying staff to be qualified in accordance with Annex III (Part-66) laid down in points M.A.606(g) and M.A.801(b)(2) of Annex I (Part-M) and in point 145.A.30(g) and (h) of Annex II (Part-145) shall apply from 1 October 2020.

Regulation (EU) No 1321/2014

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 26 November 2014.

For the Commission The President Jean-Claude JUNCKER



#### ANNEX I (PART-M)

#### **GENERAL**

#### M.1

Regulation (EU) 2020/270

For the purpose of this Part, the competent authority shall be:

- 1. for the oversight of the continuing airworthiness of individual aircraft and the issue of airworthiness review certificates the authority designated by the Member State of registry;
- 2. for the oversight of a maintenance organisation as specified in Section A, Subpart F of this <u>Annex</u> (Part-M):
  - (i) the authority designated by the Member State where that organisation's principle place of business is located;
  - (ii) the Agency if the organisation is located in a third country;
- 3. for the approval of aircraft maintenance programmes ('AMP'), one of the following:
  - (i) the authority designated by the Member State of registry of the aircraft;
  - (ii) if prior to the approval of the aircraft maintenance programme the Member State of registry agrees, one of the following:
    - (a) the authority designated by the Member State where the operator has its principal place of business or, in case the operator has no principal place of business, the authority designated by the Member State where the operator has its place of establishment or where the operator resides;
    - (b) the authority responsible for the oversight of the organisation managing the continuing airworthiness of the aircraft or with which the owner has concluded a limited contract in accordance with point (i)(3) of point M.A.201.
- 4. for the oversight of a continuing airworthiness management organisation as specified in Section A, Subpart G of this Annex (Part-M):
  - (i) the authority designated by the Member State where that organisation's principle place of business is located if the approval is not included in an air operator's certificate;
  - (ii) the authority designated by the Member State of the operator if the approval is included in an air operator's certificate;
  - (iii) the Agency if the organisation is located in a third country.

#### AMC M.1

ED Decision 2015/029/R

A competent authority may be a ministry, a national aviation authority or any aviation body designated by the Member State and located within that Member State. A Member State may designate more than one competent authority to cover different areas of responsibility, as long as the designation decision contains a list of the competencies of each authority and there is only one competent authority responsible for each given area of responsibility.



#### **SECTION A — TECHNICAL REQUIREMENTS**

#### **SUBPART A — GENERAL**

#### M.A.101 Scope

Regulation (EU) 2019/1383

This Section establishes the measures to be taken to ensure that the airworthiness of aircraft is maintained, including its maintenance. It also specifies the conditions to be met by the persons or organisations involved in such activities.



#### SUBPART B — ACCOUNTABILITY

#### M.A.201 Responsibilities

Regulation (EU) 2019/1383

- (a) The owner of the aircraft shall be responsible for the continuing airworthiness of aircraft and shall ensure that no flight takes place unless all of the following requirements are met:
  - (1) the aircraft is maintained in an airworthy condition;
  - (2) any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable;
  - (3) the airworthiness certificate is valid;
  - (4) the maintenance of the aircraft is performed in accordance with the AMP specified in point M.A.302.

Regulation (EU) No 1321/2014

- (b) When the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:
  - 1. the lessee is stipulated on the registration document; or
  - 2. detailed in the leasing contract.

When reference is made in this Part to the 'owner', the term owner covers the owner or the lessee, as applicable.

Regulation (EU) No 1321/2014

(c) Any person or organisation performing maintenance shall be responsible for the tasks performed.

Regulation (EU) 2019/1383

(d) The pilot-in-command or, in the case of aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, the operator, shall be responsible for the satisfactory accomplishment of the pre-flight inspection. That inspection shall be carried out by the pilot or another qualified person and shall not need to be carried out by an approved maintenance organisation or by certifying staff.

Regulation (EU) 2020/270

- (e) In the case of aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008<sup>1</sup> the operator shall be responsible for the continuing airworthiness of the aircraft it operates and shall:
  - (1) ensure that no flight takes place unless the conditions set out in point (a) are met;
  - (2) take the necessary steps to ensure its approval as a continuing airworthiness management organisation ('CAMO') pursuant to Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M), as part of air operator certificate for the aircraft it operates;
  - (3) take the necessary steps to ensure its approval in accordance with Annex II (Part-145) or conclude a written contract in accordance with point <a href="Mailto:CAMO.A.315(c">CAMO.A.315(c)</a> of Annex Vc (Part-CAMO) or point <a href="M.A.708(c">M.A.708(c)</a> of this Annex (Part-M) with an organisation which has been approved in accordance with Annex II (Part-145).

Regulation (EC) No 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community (OJ L 293, 31.10.2008, p. 3).

#### Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

Regulation (EU) 2020/270

- (f) For complex motor-powered aircraft used for commercial specialised operations, for CAT operations other than those performed by air carriers licensed in accordance with Regulation (EC) No 1008/2008 or by commercial Approved Training Organisations ('ATO') and Declared Training Organisations ('DTO') referred to in Article 10a of Regulation (EU) No 1178/2011<sup>1</sup>, the operator shall ensure that:
  - (1) no flight takes place unless the conditions set out in point (a) are met;
  - (2) the tasks associated with continuing airworthiness are performed by a CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M); when the operator is not a CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M), it shall conclude a written contract as regards the performance of those tasks in accordance with Appendix I to this Annex with an organisation approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M);
  - (3) the CAMO referred to in point (2) is approved in accordance with Annex II (Part-145) as an organisation to qualify for the issue of an approval for the maintenance of aircraft and of components for installation thereon, or that CAMO has concluded a written contract in accordance with point <a href="CAMO.A.315(c">CAMO.A.315(c</a>) of Annex Vc (Part-CAMO) or point <a href="M.A.708(c">M.A.708(c</a>) of this Annex (Part-M) with organisations approved in accordance with Annex II (Part-145).

Regulation (EU) 2020/270

- (g) For complex motor-powered aircraft not included in points (e) and (f), the owner shall ensure that:
  - (1) no flight takes place unless the conditions set out in point (a) are met;
  - (2) the tasks associated with continuing airworthiness are performed by a CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M); when the owner is not a CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M), it shall conclude a written contract as regards the performance of those tasks in accordance with Appendix I to this Annex with an organisation approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M);
  - (3) the CAMO referred to in point (2) is approved in accordance with Annex II (Part-145) as an organisation to qualify for the issue of an approval for the maintenance of aircraft and of components for installation thereon, or that CAMO has concluded a written contract in accordance with point <a href="CAMO.A.315(c">CAMO.A.315(c</a>) of Annex Vc (Part-CAMO) or point <a href="M.A.708(c">M.A.708(c</a>) of this Annex (Part-M) with organisations approved in accordance with Annex II (Part-145).

Regulation (EU) 2021/700

- (h) For aircraft other than complex motor-powered aircraft used for commercial specialised operations or for CAT operations other than those performed by air carriers licensed in accordance with Regulation (EC) No 1008/2008, or by commercial ATOs and commercial DTOs referred to in Article 10a of Regulation (EU) No 1178/2011, the operator shall ensure that:
  - (1) no flight takes place unless the conditions set out in point (a) are met;

Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 311, 25.11.2011, p. 1).



Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

- (2) the tasks associated with continuing airworthiness are performed by a CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M), or a combined airworthiness organisation ('CAO') approved in accordance with Annex Vd (Part-CAO); when the operator is not a CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M), or a CAO approved in accordance with Annex Vd (Part-CAO), it shall conclude a written contract in accordance with Appendix I to this Annex with a CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M), or a CAO approved in accordance with Annex Vd (Part-CAO);
- (3) the CAMO or CAO referred to in point (2) is approved in accordance with Annex II (Part-145) or in accordance with Subpart F of this Annex (Part-M) or as a CAO with maintenance privileges, or that CAMO or CAO has concluded a written contract with organisations approved in accordance with Annex II (Part-145) or in accordance with Subpart F of this Annex (Part-M) or Annex Vd (Part-CAO) with maintenance privileges.

Regulation (EU) 2020/270

- (i) For aircraft other than complex motor-powered aircraft not included in points (e) and (h), or used for limited operations, the owner shall ensure that flight takes place only if the conditions set out in point (a) are met. To that end, the owner shall:
  - (1) attribute the continuing airworthiness tasks referred to in point M.A.301 to a CAMO or CAO through a written contract concluded in accordance with Appendix I; or
  - (2) carry out those tasks himself; or
  - (3) carry out those tasks himself except the tasks of the development of and the processing of the approval of the AMP, only if those tasks are performed by a CAMO or CAO through a limited contract concluded in accordance with point M.A.302.

Regulation (EU) 2015/1536

(j) The owner/operator shall ensure that any person authorised by the competent authority is granted access to any of its facilities, aircraft or documents related to its activities, including any subcontracted activities, to determine compliance with this Part.

Regulation (EU) 2020/270

(k) Where an aircraft included in an air operator certificate is used for non-commercial operations or specialised operations under point ORO.GEN.310 of Annex III or point NCO.GEN.104 of Annex VII to Regulation (EU) No 965/2012, the operator shall ensure that the tasks associated with continuing airworthiness are performed by the CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of this Annex (Part-M) or the combined airworthiness organisation ("CAO") approved in accordance with Annex Vd (Part-CAO), whichever applicable, of the air operator certificate holder.



# GM M.A.201 Responsibilities

ED Decision 2020/002/R

#### **Quick summary table**

			Complex motor-powered aircraft		Other-than-complex motor-powered aircraft (aircraft subject to Part ML are excluded here)	
Select your type of operation and your category of aircraft			Is a CAMO or CAO required for the management of continuing airworthiness?	Is maintenance by a maintenance organisation required?	Is a CAMO or CAO required for the management of continuing airworthiness?	Is maintenance by a maintenance organisation required?
Commercial operations	САТ	Air carriers licensed in accordance with Regulation (EC) No 1008/2008	Yes, a CAMO is required and it shall be part of the AOC (M.A.201(e))	Yes, maintenance by a Part-145 organisation is required (M.A.201(e))	Yes, a CAMO is required and it shall be part of the AOC (M.A.201(e))	Yes, maintenance by a Part-145 organisation is required (M.A.201(e))
		CAT other than air carriers licensed in accordance with Regulation (EC) No 1008/2008	Yes, a CAMO is required (M.A.201(f))	Yes, maintenance by a Part-145 organisation is required (M.A.201(f))	Yes, a CAMO or CAO is required (M.A.201(h))	Yes, maintenance by a Subpart F, by a Part-CAO or by a Part-145 organisation is required (M.A.201(h))
	Commercial operations other than CAT	Commercial specialised operations	Yes, a CAMO is required (M.A.201(f))	Yes, maintenance by a Part-145 organisation is required (M.A.201(f))	Yes, a CAMO or CAO is required (M.A.201(h))	Yes, maintenance by a Subpart F, by a Part-CAO or by a Part-145 organisation is required (M.A.201(h))
		Commercial training organisations (ATOs)	Yes, a CAMO is required (M.A.201(f))	Yes, maintenance by a Part-145 organisation is required (M.A.201(f))	Yes, a CAMO or CAO is required (M.A.201(h))	Yes, maintenance by a Subpart F, by a Part-CAO or by a Part-145 organisation is required (M.A.201(h))
Other than commercial operations including limited operations as defined in Article 2(p)			Yes, a CAMO is required (M.A.201(g))	Yes, maintenance by a <u>Part-145</u> organisation is required ( <u>M.A.201(g)</u> )	No, a CAMO or CAO is not required (M.A.201(i))	No, maintenance by a Subpart F, by a Part-CAO or Part-145 organisation is not always required (M.A.201(i))



### GM M.A.201(e) Responsibilities

ED Decision 2016/011/R

The performance of ground de-icing and anti-icing activities does not require a Part-145 maintenance organisation approval. Nevertheless, inspections required to detect and, when necessary, remove deicing and/or anti-icing fluid residues are considered maintenance. Such inspections may only be carried out by suitably authorised personnel.

### AMC M.A.201(e)(2) Responsibilities

ED Decision 2016/011/R

- 1. An air carrier licensed in accordance with Regulation (EC) No 1008/2008 only needs to hold a CAMO approval as part of its air operator certificate (AOC) for the management of the continuing airworthiness of the aircraft listed on its AOC. The approval to carry out airworthiness reviews is optional.
- 2. <u>Part-M</u> does not provide for CAMOs to be independently approved to perform continuing airworthiness management tasks on behalf of air carriers licensed in accordance with Regulation (EC) No 1008/2008. The approval of such activity is vested in the (AOC).
- 3. The operator is ultimately responsible and, therefore, accountable for the airworthiness of its aircraft.

# GM M.A.201(i) Aircraft maintenance programme

ED Decision 2016/011/R

If an owner decides not to make a contract in accordance with M.A.201(i), the owner is fully responsible for the proper accomplishment of the corresponding tasks. As a consequence, it is recommended that the owner properly self-assesses his/her own competence to accomplish them or otherwise seeks the proper expertise.

### AMC M.A.201(i)(3) Responsibilities

ED Decision 2020/002/R

#### LIMITED CONTRACT FOR THE DEVELOPMENT OF THE AMP

The limited contract for the development and, when applicable, processing of the approval of the aircraft maintenance programme should cover the responsibilities related to M.A.302(d), M.A.302(f) and M.A.302(h).

# GM1 M.A.201(k) Responsibilities

ED Decision 2020/002/R

#### USE OF AIRCRAFT INCLUDED IN AN AOC FOR NCO OR SPO

As point (k) is not a derogation from the previous points of M.A.201, points M.A.201(f), (g), (h) and (i) are still applicable.



### M.A.202 Occurrence reporting

Regulation (EU) 2019/1383

- (a) Without prejudice to the reporting requirements set out in Annex II (Part-145) and Annex Vc (Part-CAMO), any person or organisation responsible in accordance with point M.A.201 shall report any identified condition of an aircraft or component which endangers flight safety to:
  - (1) the competent authority designated by the Member State of registry of the aircraft, and, when different to the Member State of registry, to the competent authority designated by the Member State of the operator;
  - (2) to the organisation responsible for the type design or supplemental type design.
- (b) The reports referred to in point (a) shall be made in a manner determined by the competent authority referred to in point (a) and shall contain all pertinent information about the condition known to the person or organisation making the report.
- (c) Where the maintenance or the airworthiness review of the aircraft is carried out on the basis of a written contract, the person or the organisation responsible for those activities shall also report any condition referred to in point (a) to the owner and the operator of the aircraft and, when different, to the CAMO or CAO concerned.
- (d) The person or organisation shall submit the reports referred to in points (a) and (c) as soon as possible, but no later than 72 hours from the moment when the person or organisation identified the condition to which the report relates, unless exceptional circumstances prevent this.
- (e) The person or organisation shall submit a follow-up report, providing details of actions which that person or organisation intends to take to prevent similar occurrences in the future, as soon as those actions have been identified. The follow-up report shall be submitted in a form and manner established by the competent authority.

### AMC M.A.202(a) Occurrence reporting

ED Decision 2015/029/R

Accountable persons or organisations should ensure that the type certificate (TC) holder receives adequate reports of occurrences for that aircraft type, to enable it to issue appropriate service instructions and recommendations to all owners or operators.

Liaison with the TC holder is recommended to establish whether published or proposed service information will resolve the problem or to obtain a solution to a particular problem.

An approved continuing airworthiness management or maintenance organisation should assign responsibility for co-ordinating action on airworthiness occurrences and for initiating any necessary further investigation and follow-up activity to a suitably qualified person with clearly defined authority and status.

In respect of maintenance, reporting a condition which endangers flight safety is normally limited to:

- serious cracks, permanent deformation, burning or serious corrosion of structure found during scheduled maintenance of the aircraft or component.
- failure of any emergency system during scheduled testing.

Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

### AMC M.A.202(b) Occurrence reporting

ED Decision 2015/029/R

The reports may be transmitted by any method, i.e. electronically, by post or by facsimile.

Each report should contain at least the following information:

- reporter or organisation's name and approval reference if applicable,
- information necessary to identify the subject aircraft and/or component,
- date and time relative to any life or overhaul limitation in terms of flying hours/cycles/landings etc., as appropriate,
- details of the occurrence.

AMC 20-8 General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances provides further guidance on occurrence reporting.



#### SUBPART C — CONTINUING AIRWORTHINESS

# M.A.301 Continuing airworthiness tasks

Regulation (EU) 2019/1383

The aircraft continuing airworthiness and the serviceability of operational and emergency equipment shall be ensured by:

- (a) the accomplishment of pre-flight inspections;
- (b) the rectification of any defect and damage affecting safe operation in accordance with data specified in points M.A.304 and M.A.401, as applicable, while taking into account the minimum equipment list ('MEL') and configuration deviation list, when they exist;
- (c) the accomplishment of all maintenance in accordance with the AMP referred to in point M.A.302;
- (d) the release of all maintenance in accordance with Subpart H;
- for all complex motor-powered aircraft or aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, the analysis of the effectiveness of the approved AMP referred to in point M.A.302;
- (f) the accomplishment of any applicable:
  - (1) airworthiness directive (AD);
  - (2) operational directive with a continuing airworthiness impact;
  - (3) continuing airworthiness requirement established by the Agency;
  - (4) measures required by the competent authority in immediate reaction to a safety problem;
- (g) the accomplishment of modifications and repairs in accordance with point M.A.304;
- (h) delivering to the pilot-in-command, or to the operator in the case of air carriers licensed in accordance with Regulation (EC) No 1008/2008, the mass and balance statement reflecting the current configuration of the aircraft;
- (i) maintenance check flights, when necessary.

### AMC M.A.301(a) Continuing airworthiness tasks

ED Decision 2020/002/R

#### PRE-FLIGHT INSPECTIONS

- 1. With regard to the pre-flight inspection, it is intended to mean all of the actions necessary to ensure that the aircraft is fit to make the intended flight. These should typically include but are not necessarily limited to:
  - (a) a walk-around type inspection of the aircraft and its emergency equipment for condition including, in particular, any obvious signs of wear, damage or leakage. In addition, the presence of all required equipment including emergency equipment should be established.
  - (b) an inspection of the aircraft continuing airworthiness record system or the aircraft technical log system, as applicable, to ensure that the intended flight is not adversely



Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

- affected by any outstanding deferred defects and that no required maintenance action shown in the maintenance statement is overdue or will become due during the flight.
- (c) a control that consumable fluids, gases etc. uplifted prior to flight are of the correct specification, free from contamination, and correctly recorded.
- (d) a control that all doors are securely fastened.
- (e) a control that control surface and landing gear locks, pitot/static covers, restraint devices and engine/aperture blanks have been removed.
- (f) a control that all the aircraft's external surfaces and engines are free from ice, snow, sand, dust etc. and an assessment to confirm that, as the result of meteorological conditions and de-icing/anti-icing fluids having been previously applied on it, there are no fluid residues that could endanger flight safety. Alternatively to this pre-flight assessment, when the type of aircraft and nature of operations allow for it, the build-up of residues may be controlled through scheduled maintenance inspections/cleanings identified in the approved maintenance programme.
- Tasks such as oil and hydraulic fluid uplift and tyre inflation may be considered as part of the pre-flight inspection. The related pre-flight inspection instructions should address the procedures to determine where the necessary uplift or inflation results from an abnormal consumption and possibly requires additional maintenance action by the approved maintenance organisation or certifying staff as appropriate.
- 3. In the case of air carriers licensed in accordance with Regulation (EC) No 1008/2008, the CAMO should publish guidance to maintenance and flight personnel and any other personnel performing pre-flight inspection tasks, as appropriate, defining responsibilities for these actions and, where tasks are contracted to other organisations, how their accomplishment is subject to the quality system of M.A.712 or the management system required by CAMO.A.200. It should be demonstrated to the competent authority that pre-flight inspection personnel have received appropriate training for the relevant pre-flight inspection tasks. The training standard for personnel performing the pre-flight inspection should be described in the continuing airworthiness management exposition.

### AMC M.A.301(b) Continuing airworthiness tasks

ED Decision 2020/002/R

- 1. The operator should have a system to ensure that all defects affecting the safe operation of the aircraft are rectified within the limits prescribed by the approved minimum equipment list (MEL), configuration deviation list (CDL) or maintenance data, as appropriate. Also that such defect rectification cannot be postponed unless agreed by the operator and in accordance with a procedure approved by the competent authority.
- 2. When deferring or carrying forward a defect rectification, the cumulative effect of a number of deferred or carried forward defects on a given aircraft and any restrictions contained in the MEL should be considered. Whenever possible, deferred defect rectification should be made known to the pilot/flight crew prior to their arrival at the aircraft.
- 3. In the case of aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 and of complex motor-powered aircraft, a system of assessment should be in operation to support the continuing airworthiness of an aircraft and to provide a continuous analysis of the effectiveness of the CAMO defect control system in use.

The system should provide for:

- (a) significant incidents and defects: monitor incidents and defects that have occurred in flight and defects found during maintenance and overhaul, highlighting any that appear significant in their own right.
- (b) repetitive incidents and defects: monitor on a continuous basis defects occurring in flight and defects found during maintenance and overhaul, highlighting any that are repetitive.
- (c) deferred and carried forward defects: Monitor on a continuous basis deferred and carried forward defects. Deferred defects are defined as those defects reported in operational service which are deferred for later rectification. Carried forward defects are defined as those defects arising during maintenance which are carried forward for rectification at a later maintenance input.
- (d) unscheduled removals and system performance: analyse unscheduled component removals and the performance of aircraft systems for use as part of the maintenance programme efficiency.

### AMC M.A.301(c) Continuing airworthiness tasks

ED Decision 2020/002/R

#### MAINTENANCE IN ACCORDANCE WITH THE AMP

The owner, CAO or CAMO, as applicable, should have a system to ensure that all aircraft maintenance checks are performed within the limits prescribed by the approved aircraft maintenance programme and that, whenever a maintenance check cannot be performed within the required time limit, its postponement is allowed in accordance with a procedure agreed by the appropriate competent authority.

### AMC M.A.301(e) Continuing airworthiness tasks

ED Decision 2020/002/F

The CAMO managing the continuing airworthiness of the aircraft should have a system to analyse the effectiveness of the maintenance programme, with regard to spares, established defects, malfunctions and damage, and to amend the maintenance programme accordingly.

# AMC M.A.301(f) Continuing airworthiness tasks

ED Decision 2020/002/R

#### **OPERATIONAL DIRECTIVES**

Operational directives with a continuing airworthiness impact include operating rules such as extended twin-engine operations (ETOPS) / long range operations (LROPS), reduced vertical separation minima (RVSM), MNPS, all-weather operations (AWOPS), RNAV, etc.

Any other continuing airworthiness requirement established by the Agency includes TC-related requirements such as: certification maintenance requirements (CMR), life-limited parts, airworthiness limitations contained in CS-25 Book 1, Appendix H, paragraph H25.4, fuel tank system airworthiness limitations including Critical Design Configuration Control Limitations (CDCCL), etc.

The operator is responsible for the incorporation of operational directives (ODs) and in cases where there is an impact on the continuing airworthiness, the CAMO has to assess this and take appropriate actions to ensure the continuing airworthiness. The process to incorporate the ODs should be detailed in an arrangement or common procedure.

### GM M.A.301(i) Continuing airworthiness tasks

ED Decision 2020/002/R

#### **MAINTENANCE CHECK FLIGHTS (MCFs)**

- (a) The definition of and operational requirements for MCFs are laid down in the Air Operations Regulation<sup>1</sup> and are carried out under the control and responsibility of the aircraft operator. During the flight preparation, the flight and the post-flight activities as well as for the aircraft handover, the processes requiring the involvement of the maintenance organisations or their personnel should be agreed in advance with the operator. The operator should consult as necessary with the CAMO in charge of the airworthiness of the aircraft.
- (b) Depending on the aircraft defect and the status of the maintenance activity performed before the flight, different scenarios are possible and are described below:
  - (1) The aircraft maintenance manual (AMM), or any other maintenance data issued by the design approval holder, requires that an MCF be performed before completion of the maintenance ordered. In this scenario, a certificate after incomplete maintenance, when in compliance with M.A.801(f) or 145.A.50(e), should be issued by the maintenance organisation and the aircraft can be flown for this purpose under its airworthiness certificate. Due to incomplete maintenance, for aircraft used in commercial air transport, it is advisable to open a new entry on the aircraft technical log system to identify the need for an MCF. This new entry should contain or refer to, as necessary, data relevant to perform the MCF, such as aircraft limitations and any potential effect on operational and emergency equipment due to incomplete maintenance, maintenance data reference and maintenance actions to be performed after the flight. After a successful MCF, the maintenance records should be completed, the remaining maintenance actions finalised and the aircraft released to service in accordance with the maintenance organisation's approved procedures.
  - (2) Based on its own experience and for reliability considerations and/or quality assurance, an operator or CAMO may wish to perform an MCF after the aircraft has undergone certain maintenance while maintenance data does not call for such a flight. Therefore, after the maintenance has been properly carried out, a certificate of release to service is issued and the aircraft airworthiness certificate remains valid for this flight.
  - (3) After troubleshooting of a system on the ground, an MCF is proposed by the maintenance organisation as confirmation that the solution applied has restored the normal system operation. During the maintenance performed, the maintenance instructions are followed for the complete restoration of the system and therefore a certificate of release to service is issued before the flight. The airworthiness certificate is valid for the flight. An open entry requesting this flight may be recorded in the aircraft technical log.
  - (4) An aircraft system has been found to fail, the dispatch of the aircraft is not possible in accordance with the maintenance data, and the satisfactory diagnosis of the cause of the fault can only be made in flight. The process for this troubleshooting is not described in the maintenance data and therefore scenario (1) does not apply. Since the aircraft cannot fly under its airworthiness certificate because it has not been released to service after maintenance, a permit to fly issued in accordance with Regulation (EU) No 748/2012 is

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Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1) (<a href="https://eur-lex.europa.eu/legalcontent/EN/TXT/?qid=1568896271265&uri=CELEX:32012R0965">https://eur-lex.europa.eu/legalcontent/EN/TXT/?qid=1568896271265&uri=CELEX:32012R0965</a>).

required. After the flight and the corresponding maintenance work, the aircraft can be released to service and continue to operate under its original certificate of airworthiness.

(c) For certain MCFs the data obtained or verified in flight will be necessary for assessment or consideration after the flight by the maintenance organisation prior to issuing the maintenance release. For this purpose, when the personnel of the maintenance organisation cannot perform these functions in flight, the maintenance organisation may rely on the crew performing the flight to complete this data or to make statements about in-flight verifications. In this case, the maintenance organisation should appoint the crew personnel to play such a role on their behalf and, before the flight, brief appointed crew personnel on the scope, functions and the detailed process to be followed, including required reporting information after the flight and reporting means, in support of the final release to service to be issued by the certifying staff.

### M.A.302 Aircraft maintenance programme

Regulation (EU) 2020/1159

- (a) Maintenance of each aircraft shall be organised in accordance with an AMP.
- (b) The AMP and any subsequent amendments thereto shall be approved by the competent authority.
- (c) When the continuing airworthiness of aircraft is managed by a CAMO or CAO, or when there is a limited contract between the owner and a CAMO or CAO concluded in accordance with point M.A.201(i)(3), the AMP and its amendments may be approved through an indirect approval procedure.

In that case, the indirect approval procedure shall be established by the CAMO or CAO concerned as part of the continuing airworthiness management exposition ('CAME') referred to in point <u>CAMO.A.300</u> of Annex Vc or point <u>M.A.704</u> of this Annex, or as part of the combined airworthiness exposition ('CAE') referred to in point <u>CAO.A.025</u> of Annex Vd and shall be approved by the competent authority responsible for that CAMO or CAO.

The indirect approval procedure shall only be used when the CAMO or CAO concerned is under the oversight of the Member State of registry of aircraft, unless a written contract has been concluded in accordance with point 3 of point <u>M.1</u> transferring responsibility for the approval of the aircraft maintenance programme to the competent authority responsible for the CAMO or CAO.

- (d) The AMP shall demonstrate compliance with:
  - (1) the instructions issued by the competent authority;
  - (2) the instructions for continuing airworthiness:
    - issued by the holders of the type certificate, restricted type certificate, supplemental type certificate, major repair design approval, ETSO authorisation or any other relevant approval issued under Annex I (Part-21) to Regulation (EU) No 748/2012;
    - (ii) included in the certification specifications referred to in point 21.A.90B or 21.A.431B of Annex I (Part-21) to Regulation (EU) No 748/2012, if applicable;
  - (3) the applicable provisions of Annex I (Part-26) to Regulation (EU) 2015/640.
- (e) By derogation to point (d), the owner or the organisation managing the continuing airworthiness of the aircraft may deviate from the instruction referred to in point (d)(2) and propose escalated intervals in the AMP, based on data obtained from sufficient reviews carried

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- out in accordance with point (h). Indirect approval is not permitted for the escalation of safety-related tasks. The owner or the organisation managing the continuing airworthiness of the aircraft may also propose additional instructions in the AMP.
- (f) The AMP shall contain details of all maintenance to be carried out, including frequency and any specific tasks linked to the type and specificity of operations.
- (g) For complex motor-powered aircraft, when the AMP is based on maintenance steering group logic or on condition monitoring, the AMP shall include a reliability programme.
- (h) The AMP shall be subject to periodic reviews and be amended accordingly when necessary. Those reviews shall ensure that the AMP continues to be up to date and valid in light of the operating experience and instructions from the competent authority, while taking into account new or modified maintenance instructions issued by the type certificate and supplemental type certificate holders and any other organisation that publishes such data in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012.

### AMC M.A.302 Aircraft maintenance programme

ED Decision 2020/002/R

#### **BASIC PRINCIPLES**

- 1. The term 'maintenance programme' is intended to include scheduled maintenance tasks the associated procedures and standard maintenance practises. The term 'maintenance schedule' is intended to embrace the scheduled maintenance tasks alone.
- 2. The aircraft should only be maintained to one approved maintenance programme at a given point in time. Where an owner or operator wishes to change from one approved programme to other, a transfer check or inspection may need to be performed in order to implement the change.
- 3. The maintenance programme details should be reviewed at least annually. As a minimum revisions of documents affecting the programme basis need to be considered by the owner or operator for inclusion in the maintenance programme during the annual review. Applicable mandatory requirements for compliance with Part-21 should be incorporated into the aircraft maintenance programme as soon as possible.
- 4. The aircraft maintenance programme should contain a preface which will define the maintenance programme contents, the inspection standards to be applied, permitted variations to task frequencies and, where applicable, any procedure to manage the evolution of established check or inspection intervals.
- 5. Repetitive maintenance tasks derived from modifications and repairs should be incorporated into the approved maintenance programme.
- 6. <u>Appendix I to AMC M.A.302 and AMC M.B.301(b)</u> provide detailed information on the contents of an approved aircraft maintenance programme.

### GM M.A.302(a) Aircraft Maintenance Programme

ED Decision 2016/011/F

A maintenance programme may indicate that it applies to several aircraft registrations as long as the maintenance programme clearly identifies the effectivity of the tasks and procedures that are not applicable to all of the listed registrations.

### AMC M.A.302(d) Aircraft maintenance programme

ED Decision 2020/002/R

#### AMP BASIS AND ASSOCIATED PROGRAMMES

- 1. An aircraft maintenance programme should normally be based upon the maintenance review board (MRB) report where applicable, the maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling. Furthermore, an aircraft maintenance programme should also take into account any maintenance data containing information on scheduling for components.
- 2. Instructions issued by the competent authority can encompass all types of instructions from a specific task for a particular aircraft to complete recommended maintenance schedules for certain aircraft types that can be used by the owner/operator directly. These instructions may be issued by the competent authority in the following cases:
  - in the absence of specific recommendations of the Type Certificate Holder.
  - to provide alternate instructions to those described in the subparagraph 1 above, with the objective of providing flexibility to the operator.
- 3. Where an aircraft type has been subjected to the MRB report process, an operator should normally develop the initial aircraft maintenance programme based upon the MRB report.
- 4. Where an aircraft is maintained in accordance with an aircraft maintenance programme based upon the MRB report process, any associated programme for the continuous surveillance of the reliability, or health monitoring of the aircraft should be considered as part of the aircraft maintenance programme.
- 5. Aircraft maintenance programmes for aircraft types subjected to the MRB report process should contain identification cross reference to the MRB report tasks such that it is always possible to relate such tasks to the current approved aircraft maintenance programme. This does not prevent the approved aircraft maintenance programme from being developed in the light of service experience to beyond the MRB report recommendations but will show the relationship to such recommendations.
- 6. Some approved aircraft maintenance programmes, not developed from the MRB process, utilise reliability programmes. Such reliability programmes should be considered as a part of the approved maintenance programme.
- 7. Alternate and/or additional instructions to those defined in paragraphs M.A.302(d)(1) and (2), proposed by the owner or the operator, may include but are not limited to the following:
  - Escalation of the interval for certain tasks based on reliability data or other supporting information. <u>Appendix I to AMC M.A.302 and AMC M.B.301(b)</u> recommends that the maintenance programme contains the corresponding escalation procedures. The escalation of these tasks is directly approved by the competent authority, except in the case of ALIs (Airworthiness Limitations), which are approved by the Agency.
  - More restrictive intervals than those proposed by the TC holder as a result of the reliability data or because of a more stringent operational environment.
  - Additional tasks at the discretion of the operator.



### AMC M.A.302(g) Aircraft maintenance programme

ED Decision 2020/002/R

#### **RELIABILITY PROGRAMMES**

- 1. Reliability programmes should be developed for aircraft maintenance programmes based upon maintenance steering group (MSG) logic or those that include condition monitored components or that do not contain overhaul time periods for all significant system components.
- 2. Reliability programmes need not be developed for aircraft not considered complex motor-powered aircraft or that contain overhaul time periods for all significant aircraft system components.
- 3. The purpose of a reliability programme is to ensure that the aircraft maintenance programme tasks are effective and their periodicity is adequate.
- 4. The reliability programme may result in the escalation or deletion of a maintenance task, as well as the de-escalation or addition of a maintenance task
- 5. A reliability programme provides an appropriate means of monitoring the effectiveness of the maintenance programme.
- 6. <u>Appendix I to AMC M.A.302 and M.B.301(d)</u> gives further guidance.

### M.A.303 Airworthiness directives

Regulation (EU) No 1321/2014

Any applicable airworthiness directive must be carried out within the requirements of that airworthiness directive, unless otherwise specified by the Agency.

### M.A.304 Data for modifications and repairs

Regulation (EU) 2019/1383

A person or organisation repairing an aircraft or a component, shall assess any damage. Modifications and repairs shall be carried out using, as appropriate, the following data:

- (a) approved by the Agency;
- (b) approved by a design organisation complying with Annex I (Part-21) to Regulation (EU) No 748/2012;
- (c) contained in the requirements referred to in point 21.A.90B or 21.A.431B of Annex I (Part-21) to Regulation (EU) No 748/2012.

### AMC M.A.304 Data for modifications and repairs

ED Decision 2015/029/R

A person or organisation repairing an aircraft or component should assess the damage against published approved repair data and the action to be taken if the damage is beyond the limits or outside the scope of such data. This could involve any one or more of the following options; repair by replacement of damaged parts, requesting technical support from the type certificate holder or from an organisation approved in accordance with Part-21 and finally Agency approval of the particular repair data.

# M.A.305 Aircraft continuing airworthiness record system

Regulation (EU) 2019/1383; Regulation (EU) 2021/700

- (a) At the completion of any maintenance, aircraft certificate of release to service ('CRS') required by point M.A.801 or point 145.A.50, as applicable, shall be entered in the aircraft continuing airworthiness record system, as soon as practicable and no later than 30 days after the completion of any maintenance.
- (b) The aircraft continuing airworthiness record system shall contain the following:
  - 1. the date of the entry, the total in-service life accumulated in the applicable parameter for aircraft, engine(s) and/or propeller(s);
  - 2. the aircraft continuing airworthiness records described in points (c) and (d) below together with the supporting detailed maintenance records described in point (e) below;
  - 3. if required by point M.A.306, the aircraft technical log.
- (c) The aircraft continuing airworthiness records shall include the current mass and balance report and the current status of:
  - 1. ADs and measures mandated by the competent authority in immediate reaction to a safety problem;
  - 2. modifications and repairs;
  - 3. compliance with the AMP;
  - 4. deferred maintenance tasks and deferred defects rectification.
- (d) The aircraft continuing airworthiness records shall include the current status specific to components of:
  - 1. life-limited parts, including the life accumulated by each affected part in relation to the applicable airworthiness limitation parameter; and
  - 2. time-controlled components, including the life accumulated by the affected components in the applicable parameter, since the last accomplishment of scheduled maintenance, as specified in the AMP.
- (e) The owner or operator shall establish a system to keep the following documents and data in a form acceptable to the competent authority and for the periods specified below:
  - 1. aircraft technical log system: the technical log or other data equivalent in scope and detail, covering the 36 months period prior to the last entry,
  - 2. the CRS and detailed maintenance records:
    - (i) demonstrating compliance with ADs and measures mandated by the competent authority in immediate reaction to a safety problem applicable to the aircraft, engine(s), propeller(s) and components fitted thereto, as appropriate, until such time as the information contained therein is superseded by new information equivalent in scope and detail but covering a period not shorter than 36 months;
    - (ii) demonstrating compliance with the applicable data in accordance with point M.A.304 for current modifications and repairs to the aircraft, engine(s), propeller(s) and any component subject to airworthiness limitations; and
    - (iii) of all scheduled maintenance or other maintenance required for continuing airworthiness of aircraft, engine(s), propeller(s), as appropriate, until such time as

the information contained therein is superseded by new information equivalent in scope and detail but covering a period not shorter than 36 months.

- 3. data specific to certain components:
  - (i) an in-service history record for each life-limited part based on which the current status of compliance with airworthiness limitations is determined;
  - (ii) the CRS and detailed maintenance records for the last accomplishment of any scheduled maintenance and any subsequent unscheduled maintenance of all lifelimited parts and time-controlled components until the scheduled maintenance has been superseded by another scheduled maintenance of equivalent scope and detail but covering a period not shorter than 36 months;
  - (iii) the CRS and owner's acceptance statement for any component that is fitted to an ELA2 aircraft without an EASA Form 1 in accordance with point (c) of point 21.A.307 of Annex I (Part-21) to Regulation (EU) No 748/2012 but covering a period not shorter than 36 months.
  - (iii) the CRS and owner's acceptance statement for any component that is fitted to an ELA2 aircraft without an EASA Form 1 in accordance with point 21.A.307(b)(2) of Annex I (Part 21) to Regulation (EU) No 748/2012 but covering a period not shorter than 36 months.

[applicable from 18 May 2022]

- 4. Record-keeping periods when the aircraft is permanently withdrawn from service:
  - (i) the data required by point (b)(1) of point M.A.305 in respect of aircraft, engine(s), and propeller(s) which shall be retained for at least 12 months;
  - (ii) the last effective status and reports as identified under points (c) and (d) of point M.A.305 which shall be retained for at least 12 months; and
  - (iii) the most recent CRS(s) and detailed maintenance records as identified under points (e)(2)(ii) and (e)(3)(i) of point M.A.305 which shall be retained for at least 12 months.
- (f) The person or organisation responsible for the management of continuing airworthiness tasks pursuant to point M.A.201 shall comply with the requirements regarding the aircraft continuing airworthiness record system and present the records to the competent authority upon request.
- (g) All entries made in the aircraft continuing airworthiness record system shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.

# GM M.A.305 Aircraft continuing airworthiness record system

ED Decision 2021/009/R

- (a) The aircraft continuing airworthiness records are the means to assess the airworthiness status of a product and its components. An aircraft continuing airworthiness record system includes the processes to keep and manage those records and should be proportionate to the subject aircraft. Aircraft continuing airworthiness records should provide the owner/CAO/CAMO of an aircraft with the information needed:
  - (1) to demonstrate that the aircraft is in compliance with the applicable airworthiness requirements; and



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- (2) to schedule all future maintenance as required by the aircraft maintenance programme based, if any, on the last accomplishment of the specific maintenance as recorded in the aircraft continuing airworthiness records.
- (b) 'Applicable airworthiness limitation parameter' and 'applicable parameter' refer to 'flight hours' and/or 'flight cycles' and/or 'landings' and/or 'calendar time', and/or any other applicable utilisation measurement unit, as appropriate.
- (c) A 'life-limited part' is a part for which the maintenance schedule of the aircraft maintenance programme requires the permanent removal from service when, or before, the specified mandatory life limitation in accordance with Commission Regulation (EU) No 748/2012 if any of the applicable parameters is reached.
- (d) The 'current status' when referring to components of life-limited parts should indicate, for each affected part, the life limitation, the total life accumulated in any applicable parameter (as appropriate) and the remaining life in any applicable parameter before the life limitation is reached.
- (e) The term 'time-controlled components' embraces any component for which the maintenance schedule of the aircraft maintenance programme requires periodically the removal for maintenance to be performed in an appropriate approved organisation for maintenance in components (workshop) to return the component to a specified standard, the replacement of sub-components of the assembly by new ones, or the inspection or test of component's performance, after a service period controlled at component level in accordance with the specified airworthiness limitation defined in accordance with Commission Regulation (EU) No 748/2012, in any of the applicable parameters.
- (f) The 'current status' when referring to time controlled components refers to the current status of compliance with the required periodic maintenance task(s) from the maintenance schedule of the aircraft maintenance programme specific to the time-controlled components. It should include the life accumulated by the affected components in the applicable parameter, as appropriate, since the last accomplishment of scheduled maintenance specified in the maintenance schedule of the aircraft maintenance programme. Any action that alters the periodicity of the maintenance task(s) or changes the parameter of this periodicity should be recorded.
- (g) 'Detailed maintenance records' in this part refers to those records required to be kept by the person or organisation responsible for the aircraft continuing airworthiness in accordance with M.A.201 in order that they may be able to fulfil their obligations under Part M.

These are only a part of the detailed maintenance records required to be kept by a maintenance organisation under M.A.614, CAO.A.090(a) or 145.A.55(c). Maintenance organisations are required to retain all detailed records to demonstrate that they worked in compliance with their respective requirements and quality procedures.

Not all records need to be transferred from the maintenance organisation to the person or organisation responsible for the aircraft continuing airworthiness in accordance with M.A.201 unless they specifically contain information relevant to aircraft configuration and future maintenance. Thus, incoming certificates of conformity, batch number references and individual task card sign-offs verified by and/or generated by the maintenance organisation are not required to be retained by the person or organisation responsible in accordance with M.A.201. However, dimensional information contained in the task card sign-off or work pack may be requested by the owner/CAO/CAMO in order to verify and demonstrate the effectiveness of the aircraft maintenance programme.



Annex I (Part-M)

SECTION A — TECHNICAL

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Information relevant to future maintenance may be contained in specific documents related to:

- modifications;
- airworthiness directives;
- repaired and non-repaired damage;
- components referred in M.A.305(d); and
- measurements relating to defects.
- (h) An airworthiness limitation is a boundary beyond which an aircraft or a component thereof must not be operated, unless the instruction(s) associated with this airworthiness limitation is (are) complied with.
- (i) 'Other maintenance required for continuing airworthiness' refers to unscheduled or outofphase maintenance due to abnormal or particular conditions or events with an impact on the
  continuing airworthiness of the aircraft at the time of its return to service. It is not intended to
  request every single condition described in the maintenance data, e.g. Aircraft Maintenance
  Manual Chapter 5, but just those that cannot be captured by other means; for example, when
  they are not included in the records for repairs. Some abnormal or particular conditions or
  events that could be kept under this requirement could be lightning strikes, hard landings,
  longterm storage, propeller or rotor over-speed, over-torque, impact on a main rotor blade,
  etc.
- (j) The term 'in-service history record' embraces records from which the current status of lifelimited parts can be determined. The 'in-service history record' template could be adjusted to the relevant characteristics of the life-limited part, e.g. an engine disk being different from a fire extinguisher squib or landing gear sliding tube.

Such records document each time a life-limited part is placed in service or removed from service. They should clearly:

- (1) identify the part by its part number and serial number,
- (2) show the date of installation and removal (i.e. date on/date off),
- (3) show the details of the installation and removal (i.e. type, serial number, weight variant, thrust rating, as appropriate, of the aircraft, engine, engine module, or propeller) at installation and removal of the part when this is necessary to appropriately control the life limitation.
- (4) Show the total in-service life accumulated in any applicable parameter, as appropriate, corresponding to the dates of installation and removal of the part.
  - Any other events that would affect the life limitation, such as an embodied modification (in accordance with airworthiness directives, service bulletins or any product improvements) that affects the life limitation or changes the limitation parameter, should also be included in the in-service history record. Not all modifications would necessarily be pertinent to the life limitation of the component. Additionally, if a parameter is not relevant to the life of the part, then that parameter does not need to be recorded.
- (k) The term 'permanently withdrawn from service' refers to moving the aircraft or component to a location that is not used for storage and/or future return to service.
- (I) The term 'current status' refers to the data which accurately establishes the level of compliance of an aircraft, engine, propeller or component thereof, with a requirement. Each status should:

- (1) identify the aircraft, the engine, the propeller or the component it applies to;
- (2) be dated; and
- (3) include the relevant total in-service life accumulated in the applicable parameter on the date of the status.

### AMC M.A.305(a) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

#### **CERTIFICATE OF RELEASE TO SERVICE**

- (a) The inclusion of the certificate of release to service in the aircraft continuing airworthiness record system means that the date and/or any applicable parameter at which the maintenance was performed, including a unique reference to the certificate of release to service, should be processed in the record system.
- (b) For components with airworthiness limitations, this information should be found on the authorised release certificate (EASA Form 1 or equivalent). For life-limited parts, some relevant information required by M.A.305 may need to be introduced in the in-service history records.

### AMC M.A.305(b)1 Aircraft continuing airworthiness record system

ED Decision 2020/002/R

#### IN-SERVICE LIFE FOR ENGINES, PROPELLERS AND APU'S

- (a) Some gas turbine engines and propellers are assembled from modules and the total life accumulated in service for the complete engine or propeller may not be kept. When owners and operators wish to take advantage of the modular design, then the total life accumulated in service for each module, as well as in-service history if applicable, and detailed maintenance records for each module, should be maintained. The continuing airworthiness records as specified should be kept with the module and should show compliance with any mandatory requirements pertaining to that module.
- (b) The recording of in-service life accumulation may be necessary also in other measurement units to ensure the continuing airworthiness of the aircraft. For example, a mandatory life limitation measured in cycles of auxiliary power unit (APU) usage may apply to some rotating parts. In such a case, APU cycles need to be recorded.

### AMC M.A.305(c)1 Aircraft continuing airworthiness record system

D Decision 2020/002/R

#### **AIRWORTHINESS DIRECTIVES**

- (a) The current status of ADs, and measures mandated by the competent authority in immediate reaction to a safety problem, should identify the product/component, the applicable ADs including revision or amendment numbers and the date on which the status was updated. For the purpose of assessing the AD status, there is no need to list those ADs which are superseded or cancelled.
- (b) If the AD is generally applicable to the aircraft or component type but is not applicable to the particular aircraft, engine, propeller or component, then this should be identified with the reason why it is not applicable.
- (c) The current status of ADs should include the release to service date on which the AD or measure was accomplished (the date the certificate of release to service was issued), and where the AD

or measure is controlled by flight hours and/or flight cycles and/or landings and/or any other applicable parameter, as appropriate, it should include the corresponding total life on that parameter accumulated in service on the date when the AD or measure was accomplished and/or the due limit in the appropriate parameter. For repetitive ADs or measures, only the last and next applications with the reference to the applicable parameter should be recorded in the current status.

- (d) The status should also specify the method of compliance and which part of a multi-part AD or measure has been accomplished, where a choice is available in the AD or measure.
- (e) The current status of AD should be sufficiently detailed to identify any loadable software aircraft part which is used for operating or controlling the aircraft.
- (f) When the AD is multi-part or requests assessments of certain inspections, this information should be shown as well.

### AMC M.A.305(c)2 Aircraft continuing airworthiness record system

ED Decision 2020/002/R

#### **MODIFICATIONS AND REPAIRS**

- (a) Status of current modifications and repairs means a list compiled at aircraft level of modifications and repairs currently embodied. It should include the identification of the aircraft, engine(s) or propeller(s), as appropriate, and the date of the certificate of release to service when the modification or repair was accomplished. Where a modification or repair creates the need for the accomplishment of scheduled maintenance tasks, the reference to the applicable tasks should be added to the aircraft maintenance programme. The status should include the reference to the data in accordance with M.A.304 that provides the accomplishment procedure for the modification or repair. It should also specify which part of a multi-part modification or repair has been accomplished and the method of compliance, where a choice is available in the data.
- (b) In addition to the previous applicable information, in respect to structure, the status of the current repairs should contain the description of the repair (e.g. doubler, blend, crack, dent, etc.), its location (e.g. reference to stringers, frames, etc.) and the dimensions. In the case of blend-out repairs, the remaining material should be recorded too.
- (c) The status of modifications should be sufficiently detailed to identify any installed loadable software aircraft part used for operating or controlling the aircraft, the part number of which evolves independently of its associated aircraft hardware component, as identified in the maintenance data of the relevant design approval holders.
  - Other loadable software parts, such as navigational data bases or entertainment systems, are not considered under this recording requirement.
- (d) For the purpose of this paragraph, a component replaced by a fully interchangeable alternate component is not considered a modification if this condition is published by the design approval holder.
- (e) The status of modifications and repairs should include engine(s), propeller(s) and components subject to mandatory instructions and associated airworthiness limitations, and it is not intended that it should be retained for other components.



### GM M.A.305(c)(2) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

#### **IMPACT OF MODIFICATIONS AND REPAIRS**

- (a) The status of modifications and repairs may include the impact of a specific modification or repair in:
  - (1) embodiment instructions;
  - (2) mass and balance change data;
  - (3) maintenance and repair manual supplements;
  - (4) maintenance programme changes and instructions for continuing airworthiness; and/or
  - (5) aircraft flight manual supplements.
- (b) When aircraft require a specific loadable software aircraft part configuration in order to operate correctly, a specific listing with this information may be necessary too.

### AMC M.A.305(c)3 Aircraft continuing airworthiness record system

ED Decision 2020/002/R

#### **AIRCRAFT MAINTENANCE PROGRAMME**

- (a) The current status of compliance with the aircraft maintenance programme means the last and next accomplishment data (referring to the applicable parameter) for the tasks specified in the maintenance schedule of the aircraft maintenance programme. It should include:
  - (1) an identifier specific enough to allow an easy and accurate identification of the task to be carried out, such as a task reference combined with a task title or short description of the work to be performed;
  - (2) the engine, propeller or component identification when the task is controlled at engine, propeller, or component level; and
  - (3) the date when the task was accomplished (i.e. the date the certificate of release to service was issued) and for repetitive tasks when it is next due time, as well as when the terminating action is performed.
- (b) Where the task is controlled by flight hours and/or flight cycles and/or landings and/or calendar time and/or any other applicable parameter, the total in-service life accumulated by the aircraft, engine, propeller or component (as appropriate) in the suitable parameter(s) should also be included.

# GM M.A.305(d) Aircraft continuing airworthiness record system

ED Decision 2020/002/F

#### LIFE-LIMITED PARTS AND TIME-CONTROLLED COMPONENTS

(a) A part is to be considered a life-limited part and a time-controlled component when it complies with both definitions given in paragraphs (c) and (e) of <u>GM M.A.305</u>. For example, the maintenance schedule of the aircraft maintenance programme may include both a mandatory permanent removal for a landing gear sliding tube and a periodic removal for overhaul of the landing gear (including the sliding tube).



(b) The following table provides a summary of the records' requirements related to life-limited parts and time-controlled components:

	sk from the maintenance ule of the AMP	Type of component	Continuing airworthiness records
Mandatory instructions (and associated airworthiness limitations) in accordance	Permanent removal (replacement)	Life-limited part e.g.: engine HPT disc, landing gear sliding tube	<ul> <li>Current status         (M.A.305(d)(1));</li> <li>In-service history record         (M.A.305(e)(3)(i));</li> <li>EASA Form 1 and detailed         maintenance records for last         scheduled maintenance and         subsequent unscheduled         maintenance         (M.A.305(e)(3)(ii));</li> <li>EASA Form 1 and detailed         maintenance records for         modifications and repairs         (M.A.305(e)(2)(ii))</li> </ul>
with Part 21 affecting a component	Periodic removal for maintenance in an appropriate approved workshop, e.g.:  Overhaul of horizontal stabiliser actuator or of a landing gear  Replacement of a U-joint (of a gearbox)	Time-controlled component e.g.: horizontal stabiliser actuator, landing gear gearbox	<ul> <li>Current status (M.A.305(d)(2));</li> <li>EASA Form 1 and detailed maintenance records for last scheduled maintenance and subsequent unscheduled maintenance (M.A.305(e)(3)(ii)); and</li> <li>EASA Form 1 and detailed maintenance records for modifications and repairs (M.A.305(e)(2)(ii)).</li> </ul>

# GM M.A.305(d)(2) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

#### TASKS CONTROLLED AT COMPONENT LEVEL

- (a) The maintenance schedule of the aircraft maintenance programme may include tasks controlled at component level coming from a mandatory requirement in accordance with Part 21 and to be performed in a workshop, such as:
  - (1) the removal of a component for periodic restoration to return the component to a specified standard (e.g. removal of the landing gear for overhaul);
  - (2) the periodic removal of a component for replacement of a sub-component by a new one when it is not possible to restore the item to a specific standard of failure resistance (e.g. discarding of universal joints of a gearbox, batteries of the escape slide/raft, discharge cartridges of fire extinguishers, etc.); and
  - (3) a periodic inspection or test to confirm that a component meets specified performance standards (e.g. functional check of the portable emergency locator transmitter, etc.). The component is left in service (no further maintenance action taken) on the condition that it continues to fulfil its intended purpose within specified performance limits until the next scheduled inspection.

The above tasks apply to 'time-controlled components' as defined in paragraph (e) of <u>GM M.A.305</u>. If a component affected by a task in accordance with (2) and (3) above is controlled at aircraft level by the aircraft maintenance programme and it has not been removed since the task was last accomplished, then its status of compliance with <u>M.A.305(d)2</u> is already demonstrated by the aircraft records.

Note: The maintenance in accordance:

- with (1) and (2) above assumes a predictable deterioration of the component: the overall reliability invariably decreases with age; and
- with (3) assumes a gradual deterioration of the component: failure resistance can reduce and drop below a defined level.
- (b) When a component is affected by a maintenance task contained the aircraft maintenance programme (AMP) that is recommended by the design approval holder (DAH) and controlled at component level, although such component does not qualify as a time-controlled component, the status of the component may be needed to show that all the maintenance due on the aircraft according to the aircraft maintenance programme has been carried out. There is no a specific requirement to keep the EASA Form 1 or equivalent or any other detailed maintenance records.
- (c) For aircraft maintenance programmes developed under a primary maintenance processoriented methodology (e.g. Maintenance Steering Group), the term 'time-controlled component' pertains to 'Hard Time' and 'On-Condition'. The primary maintenance processes are:
  - (1) Hard Time

This is a preventive process in which known deterioration of a component is limited to an acceptable level by the maintenance actions which are carried out at periods related to time in service (e.g. calendar time, number of cycles, number of landings). The prescribed actions restore the component utility margin to the applicable time limitation.

(2) On-Condition

It is a preventive process in which the component is inspected or tested, at specified periods, to an appropriate standard in order to determine whether it can continue in service. The purpose is to remove the component before its failure in service.

(3) Condition Monitoring

This is a process in which a parameter of a condition in a component (vibration, temperature, oil consumption, etc.) is monitored to identify the development of a fault. The purpose is to remove the component before its failure in service (e.g. due to related repair costs), but they are permitted to remain in service without preventive maintenance until a functional failure occurs.

Note: For components that are not subject to any of these primary maintenance processes, corrective maintenance is carried out after failure detection and is aimed at restoring components to a condition in which they can perform their intended function ('fly-to failure').



(d) The following table provides a summary of the records' requirements related to components subjected to primary maintenance process, including components without an EASA Form 1 in accordance with 21.A.307 (c):

	Primary maintenance process	Continuing airworthiness records		
Life-limited part		<ul> <li>Current status (M.A.305(d)(1));</li> <li>In-service history record (M.A.305(e)(3)(i));</li> <li>EASA Form 1 and detailed maintenance records for last scheduled maintenance and subsequent unscheduled maintenance (M.A.305(e)(3)(ii)), including modifications and repairs (M.A.305(e)(2)(ii)).</li> </ul>		
Time-	Hard time	<ul> <li>Current status (M.A.305(d)(2));</li> <li>EASA Form 1 and detailed maintenance records for last scheduled maintenance and subsequent unscheduled maintenance (M.A.305(e)(3)(ii)), including modifications and repairs (M.A.305(e)(2)(ii)).</li> </ul>		
controlled component	On condition	<ul> <li>Current status (M.A.305(d)(2)); and</li> <li>EASA Form 1 and detailed maintenance records for last scheduled maintenance and subsequent unscheduled maintenance (M.A.305(e)(3)(ii))</li> <li>If the task is controlled at aircraft level, the above information could be already contained in the records related to the aircraft maintenance programme (M.A.305(c)(3) and M.A.305(e)(2)(iii)). If the maintenance was performed off wing, the EASA Form 1 needs to be kept.</li> </ul>		
Condition mo	onitoring	The EASA Form 1 does not need to be kept unless this is the means to fulfil another requirement; for example, an AD compliance.		
ELA 2 aircraft: any component that is fitted without an EASA Form 1 in accordance with 21.A.307 (c)		The certificate of release to service and owner's acceptance statement (M.A.305(e)(3)(iii)).		

# AMC M.A.305(e) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

#### INFORMATION TECHNOLOGY (IT) SYSTEMS AND FORM OF RECORDS

(a) The information that constitutes the aircraft continuing airworthiness records may be entered in an information technology (IT) system and/or documents equivalent in scope and detail.

IT systems acceptable for supporting the aircraft continuing airworthiness records should:

- (1) include functions so that search of data and production of status is possible;
- (2) allow a transfer of the aircraft continuing airworthiness records data from one system to another using an industry-wide/worldwide data format or allow printing information;
- (3) contain safeguards which prevent unauthorised personnel from altering data; and
- (4) ensure the integrity of the data, including traceability of amendments.

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(b) 'Data equivalent in scope and detail' are included in the airworthiness record system and could be an aircraft logbook, engine logbook(s) or engine module log cards, propeller logbook(s) and log cards for life-limited parts.

Any logbook/log card should contain:

- (1) identification of the product or component it refers to;
- (2) type, part number, serial number and registration, as appropriate, of the aircraft, engine, propeller, engine module, or component to which the component has been fitted in, along with the reference to the installation and removal;
- (3) the date and the corresponding total in-service life accumulated in any applicable parameter unit, as appropriate; and
- (4) any AD, modification, repair, maintenance or deferred maintenance tasks applicable.

When fulfilling the applicable requirements, a logbook/log card as described above could be a means to comply with the current status and the in-service history record for each life-limited part.

#### (c) Form of records

Producing and/or keeping continuing airworthiness records in a form acceptable to the competent authority normally means in either material/physical or electronic state, or a combination of both.

Retention of records should be done in one of the following formats:

- (1) original paper document or electronic data (via an approved electronically signed form);
- (2) a paper reproduction of a paper document (original or copy); or
- (3) an electronic reproduction of electronic data (original or copy); or
- (4) a printed reproduction of electronic data (original or copy); or
- (5) an electronically digitised reproduction of a paper document (original or copy); or
- (6) a microfilm or scanned reproduction copy of a paper document (original or copy).

Where IT systems are used to retain documents and data, it should be possible to print a paper version of the documents and data kept.

#### (d) Physical (non-digitised) records

All physical records should remain legible throughout the required retention period. Physical records on either paper or microfilm systems should use robust material, which can withstand normal handling, filing and ageing. They should be stored in a safe way with regard to damage, alteration and theft.

#### (e) Digitised records

Digitised records may be created from a paper document (original or copy) or from electronic data.

When created from a paper document:

- (1) the creation date of the digitised record should be stored with the digitised record;
- (2) it is advisable to create an individual digitised record for each document;



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SECTION A — TECHNICAL

REQUIREMENTS

- (3) if an organisation creates a large number of digitised records, the use of database technology should ease the future retrieval of the record; and
- (4) digitised records should be legible, including details such as, but not limited to, the date of signature, names, stamps, notes, or drawings.

#### (f) Digitised record retention

Digitised records when created from an original paper record, or as a digital electronic original, should be stored on a system which is secured and kept in an environment protected from damage (e.g. fire, flooding, excessive temperature or accidental erasing). IT systems should have at least one backup system, which should be updated at least within 24 hours of any entry in the primary system. Access to both primary and backup systems is required to be protected against the ability of unauthorised personnel to alter the database and they should preferably be located remotely from the main system.

The system used for retention of digitised records should:

- (1) ensure the integrity, accuracy and completeness of the record;
- (2) ensure that access to the digitised record has safeguards against alteration of the data;
- (3) ensure the authenticity of the record including assurance that the date has not been modified after creation;
- (4) be capable of retrieving individual records within a reasonable time period; and
- (5) be maintained against technological obsolescence which would prevent printing, displaying or retrieval of the digitised records.

Computer backup discs, tapes etc. should be stored in a different location from that containing the current working discs, tapes, etc. and in a safe environment.

Where the competent authority has accepted a system for digitised record-keeping satisfying the above, the paper document may be permanently disposed of.

#### (g) Lost or destroyed records

Reconstruction of lost or destroyed records can be done by reference to other records which reflect the time in service, research of records maintained by maintenance organisations and reference to records maintained by individual mechanics, etc. When reconstruction has been done and the record is still incomplete, the owner/operator may make a statement in the new record describing the loss and establishing the time in service based on the research and the best estimate of time in service. The reconstructed records should be submitted to the competent authority for acceptance. The competent authority may require the performance of additional maintenance if not satisfied with the reconstructed records.

# AMC M.A.305(e)(1) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

This retention period of 36 months could be extended in the case of an entry in the technical log system requiring an additional period of retention as defined in Part-M.



### AMC M.A.305(e)(2) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

- (a) EASA Form 1 and the Certificate of Conformity of the components used to perform a modification/repair are not part of the substantiation data for a modification/repair. These certificates are retained by the maintenance organisation.
- (b) In the case of an AD with several steps or with intermediate assessments during its application, these intermediate steps should be part of the detailed maintenance records.

### GM M.A.305(e)(2) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

'Until such time as the information contained therein is superseded by new information equivalent in scope and detail but not shorter than 36 months' means that during a maximum of 36 months the information and the one superseding it will be kept but, after these 36 months, only the new information must be kept.

For example, for a maintenance task with an interval shorter than 36 months, more than one set of information equivalent in scope and detail should be retained. If the maintenance task interval is longer than 36 months, the last set of information equivalent in scope and detail is retained.

# AMC M.A.305(e)(3) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

- (a) An EASA Form 1 and detailed maintenance records are not required to be kept to support every installation/removal shown in the in-service history records.
- (b) Conservative methods to manage missing historical periods are acceptable to establish the current status of the life-limited part. In case of use of a conservative method, the supporting documents should be endorsed. Recommendations from the design approval holder on the procedures to record or reconstruct the in-service history should be considered.

### GM M.A.305(e)(3) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

- (a) EASA Form 1 or equivalent is not required to be kept for the 'condition monitoring' process of components unless this is the means to fulfil another requirement quoted in M.A.305 (e.g. demonstration of AD compliance).
- (b) For components that are not subject to any of the primary maintenance processes described in the <u>GM M.A.305(d)(2)</u> (i.e. Hard Time, On-Condition, Condition Monitoring), the EASA Form 1 or equivalent is not required to be kept.

### AMC M.A.305(f) Aircraft continuing airworthiness record system

ED Decision 2020/002/R

When the owner or organisation responsible for the aircraft continuing airworthiness arranges for the relevant maintenance organisation to retain copies of the continuing airworthiness records on their behalf, the owner or organisation responsible for the aircraft continuing airworthiness will continue to be responsible for the retention of records. If they cease to be the owner or organisation responsible for the aircraft continuing airworthiness of the aircraft, they also remain responsible for transferring the records to the new owner or organisation.



### M.A.306 Aircraft technical log system

Regulation (EU) 2020/270

- (a) In addition to the requirements of point M.A.305, for CAT, commercial specialised operations and commercial ATO or commercial DTO operations, the operator shall use a technical log system containing the following information for each aircraft:
  - 1. information about each flight, necessary to ensure continued flight safety, and;
  - 2. the current aircraft certificate of release to service, and;
  - 3. the current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that the competent authority may agree to the maintenance statement being kept elsewhere, and;
  - 4. all outstanding deferred defects rectifications that affect the operation of the aircraft, and;
  - 5. any necessary guidance instructions on maintenance support arrangements.
- (b) The initial issue of aircraft technical log system shall be approved by the competent authority specified in point <u>CAMO.A.105</u> of Annex Vc (Part-CAMO), or point <u>M.1</u> of this Annex (Part-M) or point <u>CAO.1(1)</u> of Annex Vd (Part-CAO), as applicable. Any subsequent amendment to that system shall be managed in accordance with point <u>CAMO.A.300(c)</u>, or points <u>M.A.704(b)</u> and (c), or point <u>CAO.A.025(c)</u>.

### AMC M.A.306(a) Aircraft technical log system

ED Decision 2020/002/R

#### **CONTENT OF INFORMATION ON THE ATL SYSTEM**

For CAT operations, commercial specialised operations and commercial ATO or commercial DTO operations, the aircraft technical log is a system for recording defects and malfunctions during the aircraft operation and for recording details of all maintenance carried out on an aircraft between scheduled base maintenance visits. In addition, it is used for recording flight safety and maintenance information the operating crew need to know.

Cabin or galley defects and malfunctions that affect the safe operation of the aircraft or the safety of its occupants are regarded as forming part of the aircraft log book where recorded by another means.

The aircraft technical log system may range from a simple single section document to a complex system containing many sections but in all cases it should include the information specified for the example used here which happens to use a 5 section document / computer system:

**Section 1** should contain details of the registered name and address of the operator the aircraft type and the complete international registration marks of the aircraft.

**Section 2** should contain details of when the next scheduled maintenance is due, including, if relevant any out of phase component changes due before the next maintenance check. In addition this section should contain the current certificate of release to service (CRS), for the complete aircraft, issued normally at the end of the last maintenance check.

NOTE: The flight crew do not need to receive such details if the next scheduled maintenance is controlled by other means acceptable to the competent authority.

**Section 3** should contain details of all information considered necessary to ensure continued flight safety. Such information includes:



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- (i) the aircraft type and registration mark,
- (ii) the date and place of take-off and landing,
- (iii) the times at which the aircraft took off and landed,
- (iv) the running total of flying hours, such that the hours to the next schedule maintenance can be determined. The flight crew does not need to receive such details if the next scheduled maintenance is controlled by other means acceptable to the competent authority.
- (v) details of any failure, defect or malfunction to the aircraft affecting airworthiness or safe operation of the aircraft including emergency systems, and any failure, defect or malfunctions in the cabin or galleys that affect the safe operation of the aircraft or the safety of its occupants that are known to the commander. Provision should be made for the commander to date and sign such entries including, where appropriate, the nil defect state for continuity of the record. Provision should be made for a CRS following rectification of a defect or any deferred defect or maintenance check carried out. Such a certificate appearing on each page of this section should readily identify the defect(s) to which it relates or the particular maintenance check as appropriate.

In the case of maintenance performed by a <u>Part-145</u> maintenance organisation, it is acceptable to use an alternate abbreviated certificate of release to service consisting of the statement '<u>Part-145</u> release to service' instead of the full certification statement specified in <u>AMC 145.A.50(b)</u> paragraph 1. When the alternate abbreviated certificate of release to service is used, the introductory section of the technical log should include an example of the full certification statement from <u>AMC 145.A.50(b)</u> paragraph 1.

- (vi) the quantity of fuel and oil uplifted and the quantity of fuel available in each tank, or combination of tanks, at the beginning and end of each flight; provision to show, in the same units of quantity, both the amount of fuel planned to be uplifted and the amount of fuel actually uplifted; provision for the time when ground de-icing and/or anti-icing was started and the type of fluid applied, including mixture ratio fluid/water and any other information required by the operator's procedures in order to allow the assessment on whether inspections for and/or elimination of de-icing/anti-icing fluid residues that could endanger flight safety are required.
- (vii) the pre-flight inspection signature.

In addition to the above, it may be necessary to record the following supplementary information:

- the time spent in particular engine power ranges where use of such engine power affects the life of the engine or engine module;
- the number of landings where landings affect the life of an aircraft or aircraft component;
- flight cycles or flight pressure cycles where such cycles affect the life of an aircraft or aircraft component.

NOTE 1: Where Section 3 is of the multi-sector 'part removable' type, then such 'part removable' sections should contain all of the foregoing information where appropriate.

NOTE 2: Section 3 should be designed so that one copy of each page may remain on the aircraft and one copy may be retained on the ground until completion of the flight to which it relates.

NOTE 3: Section 3 layout should be divided to show clearly what is required to be completed after flight and what is required to be completed in preparation for the next flight.

**Section 4** should contain details of all deferred defects that affect or may affect the safe operation of the aircraft and should therefore be known to the aircraft commander. Each page of this section should be pre-printed with the operator's name and page serial number and make provision for recording the following:

- (i) a cross reference for each deferred defect such that the original defect can be identified in the particular section 3 sector record page.
- (ii) the original date of occurrence of the defect deferred.
- (iii) brief details of the defect.
- (iv) details of the eventual rectification carried out and its CRS or a clear cross-reference back to the document that contains details of the eventual rectification.

**Section 5** should contain any necessary maintenance support information that the aircraft commander needs to know. Such information would include data on how to contact maintenance if problems arise whilst operating the routes etc.

### AMC M.A.306(b) Aircraft technical log system

ED Decision 2016/011/R

The aircraft technical log system can be either a paper or computer system or any combination of both methods acceptable to the competent authority.

In case of a computer system, it should contain programme safeguards against the ability of unauthorised personnel to alter the database.

### M.A.307 Transfer of aircraft continuing airworthiness records

Regulation (EU) 2019/1383

- (a) When an aircraft is permanently transferred from one owner or operator to another, the transferring owner or operator shall ensure that the continuing airworthiness records referred to in point M.A.305 and, if applicable the technical log system referred to in point M.A.306, are also transferred.
- (b) When the owner contracts the continuing airworthiness management tasks to a CAMO or CAO, the owner shall ensure that the continuing airworthiness records referred to in point M.A.305 are transferred to that contracted organisation.
- (c) The time periods for the retention of records set out in point (e) of point M.A.305 shall continue to apply to the new owner, operator, CAMO or CAO.

# AMC M.A.307(a) Transfer of aircraft continuing airworthiness records

ED Decision 2015/029/R

Where an owner/operator terminates his operation, all retained continuing airworthiness records should be passed on to the new owner/operator or stored.

A 'permanent transfer' does not generally include the dry lease-out of an aircraft when the duration of the lease agreement is less than 6 months. However the competent authority should be satisfied that all continuing airworthiness records necessary for the duration of the lease agreement are transferred to the lessee or made accessible to them.



#### SUBPART D — MAINTENANCE STANDARDS

# M.A.401 Maintenance data

Regulation (EU) No 1321/2014; Regulation (EU) 2021/700

- (a) The person or organisation maintaining an aircraft shall have access to and use only applicable current maintenance data in the performance of maintenance including modifications and repairs.
- (b) For the purposes of this Part, applicable maintenance data is:
  - 1. any applicable requirement, procedure, standard or information issued by the competent authority or the Agency,
  - 2. any applicable airworthiness directive,
  - 3. applicable instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders and any other organisation that publishes such data in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012.
  - 4. any applicable data issued in accordance with point <a href="145.A.45(d">145.A.45(d)</a>.
- (b) For the purposes of this Annex, applicable maintenance data is any of the following:
  - 1. any applicable requirement, procedure, standard or information issued by the competent authority or the Agency;
  - 2. any applicable airworthiness directive;
  - the applicable instructions for continuing airworthiness and other maintenance instructions, issued by the type-certificate holder, supplementary type-certificate holder and any other organisation that publishes such data in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012;
  - 4. for components approved for installation by the design approval holder, the applicable maintenance instructions published by the component manufacturers and acceptable to the design approval holder;
  - 5. any applicable data issued in accordance with point 145.A.45(d).

[applicable from 18 May 2022]

(c) The person or organisation maintaining an aircraft shall ensure that all applicable maintenance data is current and readily available for use when required. The person or organisation shall establish a work card or worksheet system to be used and shall either transcribe accurately the maintenance data onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data.

### AMC M.A.401(b) Maintenance data

ED Decision 2016/011/R

- 1. Except as specified in sub-paragraph 2, each person or organisation performing aircraft maintenance should have access to and use:
  - (a) the regulations on continuing airworthiness of aircraft, associated AMC and GM;

- (b) all applicable maintenance requirements and notices such as competent authority standards and specifications that have not been superseded by a requirement, procedure or directive;
- (c) all applicable ADs;
- (d) the appropriate sections of the aircraft maintenance programme, aircraft maintenance manual, repair manual, supplementary structural inspection document, corrosion control document, service bulletins, service sheets modification leaflets, non-destructive inspection manual, parts catalogue, type certificate data sheets as required for the work undertaken and any other specific document issued by the type certificate or supplementary type certificate holder's maintenance data, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed.
- 2. In addition to sub-paragraph 1, for components each organisation performing aircraft maintenance should hold and use the appropriate sections of the vendor maintenance and repair manual, service bulletins and service letters plus any document issued by the type certificate holder as maintenance data on whose product the component may be fitted when applicable, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed.

[deleted from 18 May 2022]

### GM1 M.A.401(b)(3) and (b)(4) Maintenance data

ED Decision 2021/009/R

- (a) The maintenance data referred to in M.A.401(b)(3) and (4) may have been prepared by various organisations, but in any case it needs to be issued by, referenced by, or acceptable to the organisation responsible for the design in accordance with Part 21 (e.g. type certificate holder (TCH), supplemental type certificate holder (STCH), ETSO holder, repair design approval holder).
- (b) Depending on the product or component subject to maintenance and depending on how this maintenance is released, different maintenance data may be needed during the performance of maintenance.
- (c) With respect to aircraft maintenance, applicable maintenance data typically includes the following documents issued by the aircraft TCH or the design approval holder (DAH): manufacturer recommended maintenance programme (e.g. MPD, MRBR), aircraft maintenance manual including the airworthiness limitations section, repair manual, supplemental structural inspection document, corrosion prevention and/or control document, service bulletins, wiring diagram manuals, troubleshooting manual, service letter/instructions, illustrated parts catalogue, and any other specific maintenance instruction issued by the aircraft TCH or by the DAH.
- (d) With respect to engine maintenance, applicable maintenance data typically includes the engine maintenance and/or overhaul manual including the airworthiness limitations section, wiring diagrams, parts catalogue, troubleshooting manual issued by the engine TCH (or aircraft TCH if the engine is certified as part of the aircraft) or by the DAH.
  - With respect to APU maintenance, applicable maintenance data typically includes APU maintenance and/or overhaul manual, wiring diagrams, parts catalogue, troubleshooting manual issued by the aircraft TCH, or issued by the APU manufacturer and acceptable to the TCH of the aircraft on which it is installed or to the DAH.

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- When in compliance with M.A.502(b), it is possible to conduct maintenance on the engine or APU while installed on the aircraft or temporarily removed to gain access. In such case, the applicable maintenance data may also include aircraft maintenance data.
- (e) With respect to maintenance of components other than engine/APU, applicable maintenance data typically includes the component maintenance (and/or repair) manual, troubleshooting manual and other maintenance instructions produced by the component manufacturer, when they are acceptable to the TCH of the product in which the component is to be installed or to the DAH, or when they form part of (or are referenced together with) the product ICA. In the case of propellers, maintenance data includes its ICA.
  - When in compliance with M.A.502(b) or M.A.502(c), it is possible to conduct maintenance on the component while installed on the aircraft or engine or APU, or temporarily removed to gain access. In such case, the applicable maintenance data may also include, as applicable, aircraft maintenance data or engine/APU maintenance data.
- (f) With respect to maintenance considered to be specialised services (such as non-destructive testing (NDT)), applicable maintenance data typically includes non-destructive testing or inspection manual, and all applicable specialised service(s) process instructions issued or specified by the DAH.

[applicable from 18 May 2022]

### GM1 M.A.401(b)(4) Maintenance data

ED Decision 2021/009/R

#### COMPONENT MANUFACTURER MAINTENANCE INSTRUCTIONS

The maintenance instructions published by the component manufacturers may be considered acceptable to the DAH – and hence may be used as maintenance data for maintenance on components approved for installation by the DAH – when they are referenced as additional or optional maintenance information together with the ICA, or when documented by a list by that DAH (GM3 21.A.7(a)).

[applicable from 18 May 2022]

### AMC M.A.401(c) Maintenance data

D Decision 2015/029/R

- 1. Data being made available to personnel maintaining aircraft means that the data should be available in close proximity to the aircraft or component being maintained, for mechanics and certifying staff to perform maintenance.
- 2. Where computer systems are used, the number of computer terminals should be sufficient in relation to the size of the work programme to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.
- 3. Maintenance tasks should be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure a record of the accomplishment of the maintenance task. Of particular importance is the need to differentiate and specify, when relevant, disassembly, accomplishment of task, reassembly and testing. In the case of a lengthy maintenance task involving a succession of personnel to complete such task, it may be necessary to use supplementary work cards or worksheets to indicate what was actually accomplished by each



individual person. A worksheet or work card system should refer to particular maintenance tasks.

- 4. The workcard/worksheet system may take the form of, but is not limited to, the following:
  - a format where the mechanic writes the defect and the maintenance action taken together with information of the maintenance data used, including its revision status,
  - an aircraft log book that contains the reports of defects and the actions taken by authorised personnel together with information of the maintenance data used, including its revision status,
  - for maintenance checks, the checklist issued by the manufacturer (i.e., 100H checklist, Revision 5, Items 1 through 95)
- 5. Maintenance data should be kept up to date by:
  - subscribing to the applicable amendment scheme,
  - checking that all amendments are being received,
  - monitoring the amendment status of all data.

### M.A.402 Performance of maintenance

Regulation (EU) 2015/1536

Except for maintenance performed by a maintenance organisation approved in accordance with Annex II (Part-145), any person or organisation performing maintenance shall:

- (a) be qualified for the tasks performed, as required by this part;
- (b) ensure that the area in which maintenance is carried out is well organised and clean in respect of dirt and contamination;
- (c) use the methods, techniques, standards and instructions specified in the M.A.401 maintenance data;
- (d) use the tools, equipment and material specified in the M.A.401 maintenance data. If necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard;
- (e) ensure that maintenance is performed within any environmental limitations specified in the M.A.401 maintenance data;
- (f) ensure that proper facilities are used in case of inclement weather or lengthy maintenance;
- (g) ensure that the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised;
- (h) ensure that an error capturing method is implemented after the performance of any critical maintenance task; and
- (i) carry out a general verification after completion of maintenance to ensure the aircraft or component is clear of all tools, equipment and any extraneous parts or material, and that all access panels removed have been refitted.



### AMC M.A.402(a) Performance of maintenance

ED Decision 2016/011/R

- 1. Maintenance should be performed by persons authorised to issue a certificate of release to service or under the supervision of persons authorised to issue a certificate of release to service. Supervision should be to the extent necessary to ensure that the work is performed properly and the supervisor should be readily available for consultation.
- 2. The person authorised to issue a certificate of release to service should ensure that:
  - (a) each person working under his/her supervision has received appropriate training or has relevant previous experience and is capable of performing the required task; and
  - (b) each person who performs specialised tasks, such as welding, is qualified in accordance to an officially recognised standard.

### **GM M.A.402(a) Performance of maintenance**

ED Decision 2016/011/R

In the case of limited Pilot-owner maintenance, as specified in M.A.803, any person maintaining an aircraft which they own individually or jointly, provided they hold a valid pilot licence with the appropriate type or class rating, may perform the limited Pilot-owner maintenance tasks in accordance with Appendix VIII to Annex I (Part-M) to Regulation (EU) No 1321/2014.

### AMC M.A.402(c) Performance of maintenance

ED Decision 2016/011/R

The general maintenance and inspection standards applied to individual maintenance tasks should meet the recommended standards and practices of the organisation responsible for the type design, which are normally published in maintenance manuals. In the absence of maintenance and inspection standards published by the organisation responsible for the type design, maintenance personnel should refer to the relevant aircraft airworthiness standards and procedures published or used as guidance by the Agency or the competent authority. The maintenance standards used should contain methods, techniques and practices acceptable to the Agency or the competent authority for the maintenance of aircraft and its components.

### AMC M.A.402(d) Performance of maintenance

ED Decision 2016/011/R

When performing maintenance, personnel are required to use the tools, equipment and test apparatuses necessary to ensure completion of work in accordance with accepted maintenance and inspection standards. Inspection, service or calibration that is performed on a regular basis should be performed in accordance with the equipment manufacturers' instructions. All tools requiring calibration should be traceable to an acceptable standard.

In this context, 'officially recognised standards' means those standards established or published by an official body, being either a natural or legal person, and which are widely recognised by the air transport sector as constituting good practice.

If the organisation responsible for the type design involved recommends special equipment or test apparatuses, personnel should use the recommended equipment or apparatuses or equivalent equipment accepted by the competent authority.

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All work should be performed using materials of such quality and in such a manner that the condition of the aircraft or its components after maintenance is at least equal to its or their original or modified condition (with regard to aerodynamic function, structural strength, resistance to vibration, deterioration and any other qualities affecting airworthiness).

### AMC M.A.402(e) Performance of maintenance

ED Decision 2016/011/R

The working environment should be appropriate for the maintenance task being performed such that the effectiveness of personnel is not impaired.

- (a) Temperature should be maintained such that personnel can perform the required tasks without undue discomfort.
- (b) Airborne contamination (e.g. dust, precipitation, paint particles, filings) should be kept to a minimum to ensure aircraft/components surfaces are not contaminated, if this is not possible all susceptible systems should be sealed until acceptable conditions are re-established.
- (c) Lighting should be adequate to ensure each inspection and maintenance task can be performed effectively.
- (d) Noise levels should not be allowed to rise to the level of distraction for inspection staff or if this is not possible inspection staff should be provided with personnel equipment to reduce excessive noise.

# AMC M.A.402(f) Performance of maintenance

ED Decision 2016/011/R

Facilities should be provided appropriate for all planned maintenance. This may require aircraft hangars that are both available and large enough for the planned maintenance.

Aircraft component workshops should be large enough to accommodate the components that are planned to be maintained.

Protection from inclement weather means the hangar or component workshop structures should be to a standard that prevents the ingress of rain, hail, ice, snow, wind and dust etc.

### AMC M.A.402(g) Performance of maintenance

ED Decision 2016/011/R

- (a) To minimise the risk of multiple errors and to prevent omissions, the person or organisation performing maintenance should ensure that:
  - (1) every maintenance task is signed off only after completion;
  - (2) the grouping of tasks for the purpose of sign-off allows critical steps to be clearly identified; and
  - (3) any work performed by personnel under supervision (i.e. temporary staff, trainees) is checked and signed off by an authorised person.
- (b) To minimise the possibility of an error being repeated in identical tasks that involve removal/installation or assembly/disassembly of several components of the same type fitted to more than one system, whose failure could have an impact on safety, the person or organisation performing maintenance should plan different persons to perform identical tasks in different

systems. However, when only one person is available, then this person should perform reinspection of the tasks as described in <u>AMC2 M.A.402(h)</u>.

### AMC1 M.A.402(h) Performance of maintenance

ED Decision 2016/011/R

#### **CRITICAL MAINTENANCE TASKS**

The following maintenance tasks should primarily be reviewed to assess their impact on safety:

- (a) tasks that may affect the control of the aircraft, flight path and attitude, such as installation, rigging and adjustments of flight controls;
- (b) aircraft stability control systems (autopilot, fuel transfer);
- (c) tasks that may affect the propulsive force of the aircraft, including installation of aircraft engines, propellers and rotors; and
- (d) overhaul, calibration or rigging of engines, propellers, transmissions and gearboxes.

### AMC2 M.A.402(h) Performance of maintenance

ED Decision 2016/011/R

#### INDEPENDENT INSPECTION

- (a) What is an independent inspection
  - Independent inspection is one possible error-capturing method. It consists of an inspection performed by an 'independent qualified person' of a task carried out by an 'authorised person', taking into account that:
  - (1) the 'authorised person' is the person who performs the task or supervises the task and assumes the full responsibility for the completion of the task in accordance with the applicable maintenance data;
  - (2) the 'independent qualified person' is the person who performs the independent inspection and attests the satisfactory completion of the task and that no deficiencies have been found. The 'independent qualified person' does not issue a certificate of release to service, therefore he/she is not required to hold certification privileges;
  - (3) the certificate of release to service is issued by the 'authorised person' after the independent inspection has been carried out satisfactorily;
  - (4) the work card system should record the identification of each person, the date and the details of the independent inspection, as necessary, before the certificate of release to service is issued.
- (b) Qualifications of personnel performing independent inspections
  - (1) When the work is performed by a <u>Part-M Subpart F</u> organisation, then the organisation should have procedures to demonstrate that the 'independent qualified person' has been trained and has gained experience in the specific control systems to be inspected. This training and experience could be demonstrated, for example, by:
    - (i) holding a <u>Part-66</u> licence in the same subcategory as the licence subcategory or equivalent necessary to release or sign off the critical maintenance task;
    - (ii) holding a <u>Part-66</u> licence in the same category and specific training in the task to be inspected; or

- (iii) having received appropriate training and having gained relevant experience in the specific task to be inspected.
- (2) When the work is performed outside a Part-M Subpart F organisation:
  - (i) the 'independent qualified person' should hold:
    - (A) a <u>Part-66</u> licence in any category or an equivalent national qualification when national regulations apply; or
    - (B) a valid pilot licence for the aircraft type issued in accordance with European Union regulations or an equivalent national qualification when national regulations apply;
  - (ii) additionally, the 'authorised person' should assess the qualifications and experience of the 'independent qualified person' taking into account that the 'independent qualified person' should have received training and have experience in the particular task. It should not be acceptable that the 'authorised person' shows to the 'independent qualified person' how to perform the inspection once work has been already finalised.
- (c) How should independent inspection be performed

Independent inspection should ensure for example correct assembly, locking and sense of operation. When inspecting control systems that have undergone maintenance, the 'independent qualified person' should consider the following points independently:

- (1) all those parts of the system that have actually been disconnected or disturbed should be inspected for correct assembly and locking;
- (2) the system as a whole should be inspected for full and free movement over the complete range;
- (3) cables should be tensioned correctly with adequate clearance at secondary stops;
- (4) the operation of the control system as a whole should be observed to ensure that the controls are operating in the correct sense;
- (5) if different control systems are interconnected so that they affect each other, all the interactions should be checked through the full range of the applicable controls; and
- (6) software that is part of the critical maintenance task should be checked, for example version and compatibility with the aircraft configuration.
- (d) What to do in unforeseen cases when only one person is available

#### **REINSPECTION:**

- (1) Reinspection is subject to the same conditions as the independent inspection is, except that the 'authorised person' performing the maintenance task is also acting as 'independent qualified person' and performs the inspection.
- (2) For critical maintenance tasks, reinspection should only be used in unforeseen circumstances when only one person is available to carry out the task and perform the independent inspection. The circumstances cannot be considered unforeseen if the person or organisation has not assigned a suitable 'independent qualified person' to that particular task.
- (3) The certificate of release to service is issued by the 'authorised person' after the reinspection has been performed satisfactorily.

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(4) The work card system should record the identification of the 'authorised person' and the date and the details of the reinspection, as necessary, before the certificate of release to service is issued.

## GM M.A.402(h) Performance of maintenance

ED Decision 2016/011/R

Several data sources may be used for the identification of critical maintenance tasks, such as:

- information from the design approval holder;
- accident reports;
- investigation and follow-up of incidents;
- occurrence reporting;
- flight data analysis;
- results of audits;
- normal operations monitoring schemes;
- feedback from training; and
- information exchange systems.

### M.A.403 Aircraft defects

Regulation (EU) 2019/1383

- (a) Any aircraft defect that hazards seriously the flight safety shall be rectified before further flight.
- (b) Only the authorised certifying staff, according to points M.A.801(b)1, M.A.801(b)2, M.A.801(c), M.A.801(d) or Annex II (Part-145) can decide, using M.A.401 maintenance data, whether an aircraft defect hazards seriously the flight safety and therefore decide when and which rectification action shall be taken before further flight and which defect rectification can be deferred. However, this does not apply when the MEL is used by the pilot or by the authorised certifying staff.
- (c) Any aircraft defect that would not hazard seriously the flight safety shall be rectified as soon as practicable, after the date the aircraft defect was first identified and within any limits specified in the maintenance data or the MEL.
- (d) Any defect not rectified before flight shall be recorded in the aircraft continuing airworthiness record system referred to in point  $\underline{\text{M.A.305}}$  or, if applicable in the aircraft technical log system referred to in point  $\underline{\text{M.A.306}}$ .

# AMC M.A.403(b) Aircraft defects

ED Decision 2015/029/R

An assessment of both the cause and any potentially hazardous effect of any defect or combination of defects that could affect flight safety should be made in order to initiate any necessary further investigation and analysis necessary to identify the root cause of the defect.

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## AMC M.A.403(d) Aircraft defects

ED Decision 2015/029/R

All deferred defects should be made known to the pilot/flight crew, whenever possible, prior to their arrival at the aircraft.

Deferred defects should be transferred on to worksheets at the next appropriate maintenance check, and any deferred defect which is not rectified during the maintenance check, should be re-entered on to a new deferred defect record sheet. The original date of the defect should be retained.

The necessary components or parts needed for the rectification of defects should be made available or ordered on a priority basis, and fitted at the earliest opportunity.



### **SUBPART E — COMPONENTS**

### M.A.501 Classification and installation

Regulation (EU) 2019/1383; Regulation (EU) 2021/700

- (a) All components shall be classified into the following categories:
  - (1) Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Subpart Q of Annex I (Part-21) to Regulation (EU) No 748/2012, unless otherwise specified in Annex I (Part-21) to Regulation (EU) No 748/2012 or in this Annex (Part-M) or Annex Vd (Part-CAO).
  - (1) Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Subpart Q of Annex I (Part 21) to Regulation (EU) No 748/2012, unless otherwise specified in point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012, or in this Annex (Part-M), or in Annex Vd (Part-CAO).
    - [applicable from 18 May 2022]
  - (2) Unserviceable components which shall be maintained in accordance with this Regulation.
  - (3) Components categorised as unsalvageable because they have reached their mandatory life limitation or contain a non-repairable defect.
  - (4) Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the maintenance data and accompanied by evidence of conformity traceable to the applicable standard.
  - (5) Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All materials must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.
- (b) Components, standard parts and material shall only be installed on an aircraft or a component when they are in a satisfactory condition, belong to one of the categories listed in point (a) and the applicable maintenance data specifies the particular component, standard part or material.

## AMC1 M.A.501(a)(1) Classification and installation

ED Decision 2021/009/R; ED Decision 2020/002/R

### **EASA FORM 1 OR EQUIVALENT**

- (a) A document equivalent to an <u>EASA Form 1</u> may be:
  - (1) a release document issued by an organisation under the terms of a bilateral agreement signed by the European Union;
  - (2) a release document issued by an organisation approved under the terms of a JAA bilateral agreement until superseded by the corresponding agreement signed by the European Union;
  - (3) a JAA Form One issued prior to 28 November 2004 by a JAR 145 organisation approved by a JAA Full Member State;
  - (4) in the case of new aircraft components that were released from manufacturing prior to the Part 21 compliance date, the component should be accompanied by a JAA Form One

- issued by a JAR 21 organisation and approved by a JAA Full Member State within the JAA mutual recognition system;
- (5) a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations;
- (6) a JAA Form One issued prior to 28 September 2008 by a maintenance organisation approved by a competent authority in accordance with its national regulations;
- (7) a release document acceptable to a competent authority according to the provisions of a bilateral agreement between the competent authority and a third country until superseded by the corresponding agreement signed by the European Union. This provision is valid provided the above agreements between the competent authority and a third country are notified to the European Commission and to the other competent authorities in accordance with Article 68 of Regulation (EU) 2018/1139;
- (8) a release document issued under the conditions described in Article 4 point 6 of Regulation (EU) No 1321/2014);
- (9) a 'declaration of maintenance accomplished' issued by the person or organisation that performed the maintenance, as specified in point M.A.502(e).
  - [applicable from 18 May 2022]
- (b) Any item in storage without an <u>EASA Form 1</u> or equivalent cannot be installed on aircraft registered in a Member State unless an EASA Form 1 is issued for such item by an appropriately approved maintenance organisation in accordance with <u>AMC M.A.613(a)</u> or <u>AMC1 CAO.A.070(a)</u> or <u>AMC2 145.A.50(d)</u>.

# GM1 M.A.501(a)(1) Classification and installation

ED Decision 2021/009/R

Point (b) of 21.A.307 specifies new components that do not need an EASA Form 1 or equivalent to be eligible for installation. Point (c) of 21.A.307 specifies the conditions for the document accompanying the component.

[applicable from 18 May 2022]

## GM1 M.A.501(a)(2) Classification and installation

ED Decision 2019/009/R

### **UNSERVICEABLE COMPONENTS**

- (a) The person or organisation that performs maintenance should ensure the proper identification of any unserviceable components. The unserviceable status of the component should be clearly declared on a tag together with the component identification data and any information that is useful to define actions that are necessary to be taken. Such information should state, as applicable, in-service times, maintenance status, preservation status, failures, defects or malfunctions reported or detected, exposure to adverse environmental conditions, and whether the component is installed on an aircraft that was involved in an accident or incident. Means should be provided to prevent unintentional separation of this tag from the component.
- (b) Unserviceable components should typically undergo maintenance due to:
  - (1) expiry of the service life limit as defined in the aircraft maintenance programme;

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- (2) non-compliance with the applicable airworthiness directives and other continuing airworthiness requirements mandated by the Agency;
- (3) absence of the necessary information to determine the airworthiness status or eligibility for installation;
- (4) evidence of defects or malfunctions;
- (5) being installed on an aircraft that was involved in an incident or accident likely to affect the component's serviceability.

### AMC1 M.A.501(a)(3) Classification and installation

ED Decision 2020/002/R

#### **UNSALVAGEABLE COMPONENTS**

The following types of components should typically be classified as unsalvageable:

- (a) components with non-repairable defects, whether visible or not to the naked eye;
- (b) components that do not meet design specifications, and cannot be brought into conformity with such specifications;
- (c) components subjected to unacceptable modification or rework that is irreversible;
- (d) life-limited parts that have reached or exceeded their mandatory life limitation, or have missing or incomplete records;
- (e) components whose airworthy condition cannot be restored due to exposure to extreme forces, heat or adverse environmental conditions;
- (f) components for which conformity with an applicable airworthiness directive cannot be accomplished;
- (g) components for which maintenance records and/or traceability to the manufacturer cannot be retrieved.

# AMC1 M.A.501(a)(4) Classification and installation

ED Decision 2019/009/R

#### **STANDARD PARTS**

- (a) Standard parts are parts that are manufactured in complete compliance with an established industry, Agency, competent authority or other government specification which include design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all the information that is necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of such specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications, etc.
- (b) To designate a part as a standard part, the TC holder may issue a standard parts manual accepted by the competent authority of the original TC holder or may make reference in the parts catalogue to the specification to be met by the standard part. Documentation that accompanies standard parts should clearly relate to the particular parts and contain a conformity statement plus both the manufacturing and supplier source. Some materials are

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subject to special conditions, such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.

(c) An <u>EASA Form 1</u> or equivalent is not normally issued and, therefore, none should be expected.

## AMC2 M.A.501(a)(4) Classification and installation

ED Decision 2019/009/R

#### STANDARD PARTS

For sailplanes and powered sailplanes, non-required instruments and/or equipment that are certified under the provision of CS 22.1301(b), if those instruments or equipment, when installed, functioning, functioning improperly or not functioning at all, do not in themselves, or by their effect upon the sailplane and its operation, constitute a safety hazard.

'Required' in the term 'non-required', as used above, means required by the applicable airworthiness code (CS 22.1303, 22.1305 and 22.1307) or required by the relevant regulations for air operations and the applicable Rules of the Air or as required by air traffic management (e.g. a transponder in certain controlled airspace). Examples of non-required equipment which can be considered to be standard parts may be electrical variometers, bank/slip indicators ball-type, total energy probes, capacity bottles (for variometers), final glide calculators, navigation computers, logger/barograph/turnpoint camera, bug-wipers and anti-collision systems. Equipment which must be approved in accordance with the airworthiness code shall comply with the applicable ETSO or equivalent and it is not considered to be a standard part (e.g. oxygen equipment).

## AMC M.A.501(a)(5) Classification and installation

ED Decision 2019/009/R

#### **MATERIAL**

- (a) Consumable material is any material which is only used once, such as lubricants, cements, compounds, paints, chemical dyes and sealants, etc.
- (b) Raw material is any material that requires further work to make it into a component part of the aircraft, such as metals, plastics, wood, fabric, etc.
- (c) Material both raw and consumable should only be accepted when satisfied that it is to the required specification. To be satisfied, the material and/or its packaging should be marked with the applicable specification and, where appropriate, the batch number.
- (d) Documentation that accompanies all materials should clearly relate to the particular material and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions, such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.
- (e) An <u>EASA Form 1</u> or equivalent should not be issued for such materials and, therefore, none should be expected. The material specification is normally identified in the (S)TC holder's data except in the case where the Agency or the competent authority has agreed otherwise.

## GM1 M.A.501(b) Classification and installation

ED Decision 2021/009/R; ED Decision 2019/009/R

(a) To ensure that components, standard parts and materials are in satisfactory condition, the persons referred to under M.A.801(b)(1), M.A.801(b)(2) or M.A.801(c) or the approved maintenance organisation should perform an incoming physical inspection.

- (b) The incoming physical inspection should be performed before the component is installed on the aircraft.
- (c) The following list, although not exhaustive, contains typical checks to be performed:
  - (1) verify the general condition of the components and their packaging in relation to damages that could affect their integrity;
  - (2) verify that the shelf life of the component has not expired;
  - (3) verify that items are received in the appropriate package in respect of the type of the component: e.g. correct ATA 300 or electrostatic sensitive devices packaging, when necessary;
  - (4) verify that the component has all plugs and caps appropriately installed to prevent damage or internal contamination. Care should be taken when tape is used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.
  - (5) verify that the release certificate accompanying each new component satisfies the release requirements established in point 21.A.307 as applicable in relation to the particular product on which the component is being installed.
    - [applicable from 18 May 2022]
- (d) Items (e.g. fasteners) purchased in batches should be supplied in a package. The packaging should state the applicable specification/standard, P/N, batch number, and the quantity of the items. The documentation that accompanies the material should contain the applicable specification/standard, P/N, batch number, supplied quantity, and the manufacturing sources. If the material is acquired from different batches, acceptance documentation for each batch should be provided.

## GM2 M.A.501(b) Classification and installation

ED Decision 2020/002/R; ED Decision/009/R

### **INSTALLATION OF COMPONENTS**

Components, standard parts and materials should only be installed when they are specified in the applicable maintenance data. This could include parts catalogue (IPC), service bulletins (SBs), aircraft maintenance manual (AMM), component maintenance manual (CMM), etc. So, a component, standard part and material can only be installed after having checked the applicable maintenance data. This check should ensure that the part number, modification status, limitations, etc., of the component, standard part or material are the ones specified in the applicable maintenance data of the particular aircraft or component (i.e. IPC, SB, AMM, CMM, etc.) where the component, standard part or material is going to be installed. When the installation is performed outside a maintenance organisation, that is by the persons referred to in M.A.801(b)(1), M.A.801(b)(2), or M.A.801(c), then these persons are responsible to perform this check before installation. When the installation is performed by a Part-M Subpart F organisation or an organisation approved in accordance with Part-CAO, then the organisation has to establish procedures to ensure that this check is performed before installation.

Components, standard parts and materials should only be installed when they are specified in the applicable maintenance data as specified in M.A.401(b). So, a component, standard part and material can only be installed after having checked the applicable maintenance data.

This check should ensure that the part number, modification status, limitations, etc. of the component, standard part or material are the ones specified in the applicable maintenance data of the particular aircraft or component where the component, standard part or material is going to be installed. When the installation is performed outside a maintenance organisation, that is by the persons referred to in M.A.801(b)(1), M.A.801(b)(2), or M.A.801(c), then these persons are responsible to perform this check before installation. When the installation is performed by a Part-M Subpart F organisation or an organisation approved in accordance with Part CAO, then the organisation has to establish procedures to ensure that this check is performed before installation.

[applicable from 18 May 2022]

### **M.A.502 Component maintenance**

Regulation (EU) 2020/270; Regulation (EU) 2021/700

- (a) The maintenance of components shall be performed by maintenance organisations approved in accordance with Subpart F of this Annex or with Annex II (Part-145) or with Annex Vd (Part-CAO), as applicable.
- (b) By derogation from point (a), where a component is fitted to the aircraft, the maintenance of such component may be performed by an aircraft maintenance organisation approved in accordance with Subpart F of this Annex or with Annex II (Part-145) or with Annex Vd (Part-CAO) or by certifying staff referred to in point M.A.801(b)(1). Such maintenance shall be performed in accordance with aircraft maintenance data or in accordance with component maintenance data if the competent authority agreed. Such aircraft maintenance organisation or certifying staff may temporarily remove the component for maintenance if this is necessary to improve access to the component, except where additional maintenance is required due to the removal. Component maintenance performed in accordance with this point shall not be eligible for the issuance of an EASA Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.
- (c) By derogation from point (a), where a component is fitted to the engine or auxiliary power unit ('APU'), the maintenance of such component may be performed by an engine maintenance organisation approved in accordance with Subpart F of this Annex, or with Annex II (Part-145) or with Annex Vd (Part-CAO). Such maintenance shall be performed in accordance with engine or APU maintenance data or in accordance with component maintenance data if agreed by the competent authority. Such B-rated organisation may temporarily remove the component for maintenance if this is necessary to improve access to the component, except where additional maintenance is required due to the removal.

Points (a) to (c) above shall not apply to components referred to in point (c) of point 21.A.307 of Annex I (Part-21) to Regulation (EU) No 748/2012.

- (d) Maintenance of components referred to in point (c) of point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012, where the component is fitted to the aircraft or is temporarily removed to improve access, shall be performed by an aircraft maintenance organisation approved in accordance with Subpart F of this Annex or with Annex II (Part-145) or with Annex Vd (Part-CAO), as applicable, by certifying staff referred to in point M.A.801(b)(1) or by the pilot-owner referred to in point M.A.801(b)(2). Component maintenance performed in accordance with this point shall not be eligible for the issuance of an EASA Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.
- (a) The maintenance of components other than the components referred to in points (b)(2) to (b)(6) of point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012 shall be performed



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by maintenance organisations approved in accordance with Subpart F of this Annex or with Annex II (Part-145) or with Annex Vd (Part-CAO), as applicable.

- (b) By way of derogation from point (a), where a component is fitted to the aircraft, the maintenance of such a component may be performed by an aircraft maintenance organisation approved in accordance with Subpart F of this Annex or with Annex II (Part-145) or with Annex Vd (Part-CAO) or by the certifying staff referred to in point (b)(1) of point M.A.801. Such maintenance shall be performed in accordance with the aircraft maintenance data or in accordance with the component maintenance data if agreed by the competent authority. Such aircraft maintenance organisation or the certifying staff may temporarily remove the component for maintenance if this is necessary to improve access to the component, except where additional maintenance is required due to the removal. Component maintenance performed in accordance with this point shall not be eligible for the issuance of an EASA Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.
- (c) By way of derogation from point (a), where a component is fitted to the engine or the auxiliary power unit (APU), the maintenance of such component may be performed by an engine maintenance organisation approved in accordance with Subpart F of this Annex, or with Annex II (Part-145), or with Annex Vd (Part-CAO). Such maintenance shall be performed in accordance with the engine or the APU maintenance data or in accordance with the component maintenance data if agreed by the competent authority. Such B-rated organisation may temporarily remove the component for maintenance if this is necessary to improve access to the component, except where additional maintenance is required due to the removal.
- (d) The maintenance of components referred to in point (b)(2) of point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012, where the component is fitted to the aircraft or is temporarily removed to improve access, shall be performed by an aircraft maintenance organisation approved in accordance with Subpart F of this Annex or with Annex II (Part-145) or with Annex Vd (Part-CAO), as applicable, by the certifying staff referred to in point (b)(1) of point M.A.801 or by the pilot-owner referred to in point (b)(2) of point M.A.801. Component maintenance performed in accordance with this point shall not be eligible for the issuance of an EASA Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.
- (e) The maintenance of components referred to in points (b)(3) to (b)(6) of point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012 shall be performed by the organisation referred to in point (a), or performed by any person or organisation and released with a "declaration of maintenance accomplished" issued by the person or organisation that performed the maintenance. The "declaration of maintenance accomplished" shall contain at least basic details of the maintenance carried out, the date on which the maintenance was completed, and the identification of the organisation or person that issues it. It shall be considered a maintenance record and equivalent to an EASA Form 1 in respect of the maintained component.

[applicable from 18 May 2022]

# AMC M.A.502 Component maintenance

ED Decision 2015/029/F

Component removal from and installation on an aircraft is considered to be aircraft maintenance and not component maintenance. As a consequence, M.A.502 requirements do not apply to this case.



### AMC M.A.502(b) and (c) Component maintenance

ED Decision 2020/002/R

M.A.502(b) and (c) allow the performance of certain component maintenance, in accordance with component maintenance data, to maintenance organisations not holding the corresponding B/C rating and to independent certifying staff, subject to the agreement of:

- The authority responsible for the oversight of the maintenance organisation (refer to M.1, paragraph 2 for M.A. Subpart F maintenance organisations, or to 145.1 for Part-145 maintenance organisations, or to CAO.1 for Part-CAO maintenance organisations) or,
- The authority of the Member State of registry in the case of maintenance performed by independent certifying staff.

This should only be permitted by the competent authority in the case of simple component maintenance, where the competent authority is satisfied that the certifying staff are appropriately qualified and the proper tooling and facilities are available. It is important to note that for more complex component maintenance, special qualifications may be required and it is not enough with holding a <u>Part-66</u> aircraft maintenance licence.

### GM1 M.A.502(e) Component maintenance

ED Decision 2021/009/R

A 'declaration of maintenance accomplished' is a certificate prepared in any shape/form by the person or organisation that performed any maintenance on the component covered by the certificate and subject to the conditions in M.A.502(e). This person or organisation does not need an approval to perform maintenance in accordance with Regulation (EU) No 1321/2014. In order for the component to be eligible for installation with a 'declaration of maintenance accomplished', this declaration, together with other records, should allow the determination that the component was first installed as 'new', as a component referred to in M.A.502(e). Such a component should not be installed in an aircraft if there is information on the certificate which is not readable or not understandable or states that the component is not in a satisfactory condition for operation.

[applicable from 18 May 2022]

## M.A.503 Life-limited parts and time-controlled components

Regulation (EU) 2020/270

- (a) Installed life-limited parts and time-controlled components shall not exceed the approved limitation as specified in the AMP and ADs, except as provided for in point M.A.504(b).
- (b) When the approved limitation expires, the component shall be removed from the aircraft for maintenance, or for disposal in the case of life-limited parts.

# M.A.504 Segregation of components

Regulation (EU) 2019/1383

- (a) Unserviceable and unsalvageable components shall be segregated from serviceable components, standards parts and materials.
- (b) Unsalvageable components shall not be permitted to re-enter the component supply system unless the mandatory life limitation has been extended or a repair solution has been approved in accordance with Regulation (EU) No 748/2012.



### AMC1 M.A.504 Segregation of components

ED Decision 2020/002/R

- (a) Unserviceable components should be identified and stored in a separate secure location that is managed by the maintenance organisation until a decision is made on the future status of such components. Certifying staff outside maintenance organisations (M.A.801(b)(1), or M.A.801(c)) that release aircraft maintenance should send, with the agreement of the aircraft owner/lessee, any unserviceable component to a maintenance organisation for controlled storage. Nevertheless, the person or organisation that declared the component unserviceable may transfer its custody, after identifying it as unserviceable, to the aircraft owner/lessee provided that such transfer is reflected in the aircraft logbook, or engine logbook, or component logbook.
- (b) 'Secure location under the control of an approved maintenance organisation' refers to a location that is managed by the approved maintenance organisation that prevents the component from being reused or tampered with. This may include facilities that are established by the organisation at locations different from the main maintenance facilities. These locations should be identified in the relevant procedures of the organisation.
- (c) In the case of unsalvageable components, the person or organisation should:
  - (1) retain such components in the secure location referred to in paragraph (b);
  - (2) arrange for the component to be mutilated in a manner that ensures that it is cannot be restored for use, before disposing it; or
  - (3) mark the component indicating that it is unsalvageable, when, in agreement with the component owner, the component is disposed of for legitimate non-flight uses (such as training and education aids, research and development), or for non-aviation applications, mutilation is often not appropriate. Alternatively to marking, the original part number or data plate information can be removed, or a record kept of the disposal of the component for legitimate non-flight uses.

## **GM1 M.A.504 Segregation of components**

ED Decision 2019/009/R

#### **MUTILATION OF COMPONENTS**

- (a) Mutilation should be accomplished in such a manner that the components become permanently unusable for their originally intended use. Mutilated components should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by replating, shortening and rethreading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.
- (b) Mutilation may be accomplished by one or a combination of the following procedures:
  - (1) grinding;
  - (2) burning;
  - (3) removal of a major lug or other integral feature;
  - (4) permanent distortion of parts;
  - (5) cutting a hole with cutting torch or saw;
  - (6) melting;
  - (7) sawing into many small pieces; and



- (8) any other method accepted by the competent authority.
- (c) The following procedures are examples of mutilation that are often less successful because they may not be consistently effective:
  - (1) stamping or vibro-etching;
  - (2) spraying with paint;
  - (3) small distortions, incisions, or hammer marks;
  - (4) identification by tags or markings;
  - (5) drilling small holes; and
  - (6) sawing in two pieces only.



### SUBPART F — MAINTENANCE ORGANISATION

## M.A.601 Scope

Regulation (EU) 2015/1536

This Subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft other than complex motor powered aircraft and components to be installed therein not used by licenced air carriers in accordance with Regulation (EC) No 1008/2008.

## M.A.602 Application

Regulation (EU) No 1321/2014

An application for issue or change of a maintenance organisation approval shall be made on a form and in a manner established by the competent authority.

## AMC M.A.602 Application

ED Decision 2020/002/R

An application should be made on an EASA Form 2 (<u>Appendix IX to AMC M.A.602 and AMC M.A.702</u>) or equivalent acceptable to the competent authority.

The <u>EASA Form 2</u> is valid for the application for <u>M.A. Subpart F</u> (refer to Article 4(2)), <u>Part-145</u>, <u>M.A. Subpart G</u> (refer to Article 4(2)), Part-CAMO and Part-CAO organisations. Organisations applying for several approvals may do so by using a single <u>EASA Form 2</u>.

## M.A.603 Extent of approval

Regulation (EU) 2019/1383

- (a) An organisation involved in activities subject to this Subpart shall not exercise its activities unless approved by the competent authority. To that aim, the competent authority shall use the template set out in Appendix V.
- (b) The scope of work subject to approval shall be specified in the maintenance organisation manual in accordance with point M.A.604. Classes and ratings to be used for the approval of maintenance organisations are set out in Appendix IV of this Part.
- (c) An approved maintenance organisation may fabricate, in conformity with maintenance data, a restricted range of parts for the use in the course of undergoing work within its own facilities, as identified in the maintenance organisation manual.



## AMC M.A.603(a) Extent of Approval

ED Decision 2015/029/R

The following table identifies the ATA Specification 2200 chapter for the category C component rating. If the maintenance manual (or equivalent document) does not follow the ATA Chapters, the corresponding subjects still apply to the applicable C rating.

CLASS	RATING	ATA CHAPTERS
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUS	C1 Air Cond & Press	21
	C2 Auto Flight	22
	C3 Comms and Nav	23 - 34
	C4 Doors - Hatches	52
	C5 Electrical Power & Lights	24 – 33 – 85
	C6 Equipment	25 - 38 - 44 - 45 - 50
	C7 Engine – APU	49 - 71 - 72 - 73 - 74 - 75 - 76 - 77 - 78 - 79 - 80 - 81 - 82 - 83
	C8 Flight Controls	27 - 55 - 57.40 - 57.50 - 57.60 - 57.70
	C9 Fuel	28 - 47
	C10 Helicopters - Rotors	62 - 64 - 66 - 67
	C11 Helicopter - Trans	63 - 65
	C12 Hydraulic Power	29
	C13 Indicating/Recording Systems	31 - 42 - 46
	C14 Landing Gear	32
	C15 Oxygen	35
	C16 Propellers	61
	C17 Pneumatic & Vacuum	36 - 37
	C18 Protection ice/rain/fire	26 - 30
	C19 Windows	56
	C20 Structural	53 - 54 - 57.10 - 57.20 - 57.30
	C21 Water Ballast	41
	C22 Propulsion Augmentation	84

## AMC M.A.603(c) Extent of approval

ED Decision 2015/029/R

- 1. The agreement by the competent authority for the fabrication of parts by the approved maintenance organisation should be formalised through the approval of a detailed procedure in the maintenance organisation manual. This AMC contains principles and conditions to be taken into account for the preparation of an acceptable procedure.
- 2. Fabrication, inspection, assembly and test should be clearly within the technical and procedural capability of the approved maintenance organisation.
- 3. The approved data necessary to fabricate the part are those approved either by the Agency, the TC holder, Part-21 design organisation approval holder, or STC holder.
- 4. Items fabricated by an approved maintenance organisation may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components undergoing work within its own facility. The permission to fabricate does not constitute approval for manufacture, or to supply externally and the parts do not qualify for

certification on <u>EASA Form 1</u>. This also applies to the bulk transfer or surplus inventory, in that locally fabricated parts are physically segregated and excluded from any delivery certification.

- 5. Fabrication of parts, modification kits etc. for onward supply and/or sale may not be conducted under a M.A. Subpart F approval.
- 6. The data specified in paragraph 3 may include repair procedures involving the fabrication of parts. Where the data on such parts is sufficient to facilitate fabrication, the parts may be fabricated by an approved maintenance organisation. Care should be taken to ensure that the data include details of part numbering, dimensions, materials, processes, and any special manufacturing techniques, special raw material specification or/and incoming inspection requirement and that the approved organisation has the necessary capability. That capability should be defined by way of maintenance organisation manual content. Where special processes or inspection procedures are defined in the approved data which are not available at the approved maintenance organisation, that organisation cannot fabricate the part unless the TC/STC holder gives an approved alternative.
- 7. Examples of fabrication under the scope of an M.A. Subpart F approval can include but are not limited to the following:
  - (a) fabrication of bushes, sleeves and shims,
  - (b) fabrication of secondary structural elements and skin panels,
  - (c) fabrication of control cables,
  - (d) fabrication of flexible and rigid pipes,
  - (e) fabrication of electrical cable looms and assemblies,
  - (f) formed or machined sheet metal panels for repairs.

Note: It is not acceptable to fabricate any item to pattern unless an engineering drawing of the item is produced which includes any necessary fabrication processes and which is accepted to the competent authority.

- 8. Where a TC holder or an approved production organisation is prepared to make available complete data which is not referred to in aircraft manuals or service bulletins but provides manufacturing drawings for items specified in parts lists, the fabrication of these items is not considered to be within the scope of an M.A. Subpart F approval unless agreed otherwise by the competent authority in accordance with a procedure specified in the maintenance organisation manual.
- 9. Inspection and Identification.

Any locally fabricated part should be subject to an inspection stage before, separately, and preferably independently from, any inspection of its installation. The inspection should establish full compliance with the relevant manufacturing data, and the part should be unambiguously identified as fit for use by stating conformity to the approved data. Adequate records should be maintained of all such fabrication processes including heat treatment and the final inspections. All parts, excepting those with inadequate space, should carry a part number which clearly relates it to the manufacturing/inspection data. Additional to the part number the approved maintenance organisation's identity should be marked on the part for traceability purposes.



### M.A.604 Maintenance organisation manual

Regulation (EU) 2020/270

- (a) The maintenance organisation shall provide a manual containing at least the following information:
  - a statement signed by the accountable manager appointed in accordance with point M.A.606, point (a) which confirms that the organisation will at all times carry out its activities in accordance with the requirements of this Annex (Part-M) or Annex Vb (Part-ML), as applicable, and with the manual;
  - 2. the organisation's scope of work, and;
  - 3. the title(s) and name(s) of person(s) referred to in point M.A.606(b), and;
  - 4. an organisation chart showing associated chains of responsibility between the person(s) referred to in point M.A.606(b), and;
  - 5. a list of certifying staff and, if applicable, airworthiness review staff, with their scope of approval, and;
  - 6. a list of locations where maintenance is carried out, together with a general description of the facilities, and;
  - 7. procedures specifying how the maintenance organisation ensures compliance with this Part, and;
  - 8. the maintenance organisation manual amendment procedure(s).
- (b) The maintenance organisation manual and its amendments shall be approved by the competent authority.
- (c) Notwithstanding point (b) minor amendments to the manual may be approved through a procedure (hereinafter called indirect approval).

## AMC M.A.604 Maintenance organisation manual

D Decision 2015/029/R

- 1. <u>Appendix IV</u> to this AMC provides an outline of the format of an acceptable maintenance organisation manual for a small organisation with less than 10 maintenance staff.
- 2. The maintenance organisation exposition as specified in <a href="Part-145">Part-145</a> provides an outline of the format of an acceptable maintenance organisation manual for larger organisations with more than 10 maintenance staff, dependent upon the complexity of the organisation.

## M.A.605 Facilities

Regulation (EU) No 1321/2014

The organisation shall ensure that:

- (a) Facilities are provided for all planned work, specialised workshops and bays are segregated as appropriate, to ensure protection from contamination and the environment.
- (b) Office accommodation is provided for the management of all planned work including in particular, the completion of maintenance records.
- (c) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions shall ensure segregation of unserviceable components and material from all other



components, material, equipment and tools. Storage conditions shall be in accordance with the manufacturers' instructions and access shall be restricted to authorised personnel.

## AMC M.A.605(a) Facilities

ED Decision 2020/002/R

- 1. Where a hangar is not owned by the M.A. Subpart F organisation, it may be necessary to establish proof of tenancy. In addition, sufficiency of hangar space to carry out planned maintenance should be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the aircraft maintenance programme. The aircraft hangar visit plan should be updated on a regular basis.
  - For balloons and airships, a hangar may not be required where maintenance of the envelope and bottom end equipment can more appropriately be performed outside, providing all necessary maintenance can be accomplished in accordance with M.A.402 or ML.A.402. For complex repairs or component maintenance requiring an EASA Form 1, suitable approved workshops should be provided. The facilities and environmental conditions required for inspection and maintenance should be defined in the Maintenance Organisation Manual.
  - Depending on the scope of work of the maintenance organisation, it may not be necessary to have a hangar available. For example, an organisation maintaining ELA2 aircraft (when not performing major repairs) may perform the work in alternative suitable facilities (and possibly at remote locations) as agreed by the competent authority.
- 2. Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any twelve-month period. Aircraft hangar and aircraft component workshop structures should be to a standard that prevents the ingress of rain, hail, ice, snow, wind and dust etc. Aircraft hangar and aircraft component workshop floors should be sealed to minimise dust generation.
- 3. Aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete continuing airworthiness records in a proper manner.

#### 4. Special case for ELA2 aircraft

For ELA2 aircraft, it is acceptable not to have access to a hangar or dedicated workshops. Depending on the scope of work, other facilities are acceptable as long as protection is ensured from inclement weather and contamination. This may include, for example, working in the field or in non-aviation premises (closed or not).

These facilities do not need to be individually approved by the competent authority as long as the maintenance organisation manual describes for each type of facility the scope of work, the tooling and equipment available, and the permitted environmental conditions (weather, contamination).

The organisation should include, as part of the periodic internal organisational review, a sampling of the compliance with these conditions during certain maintenance events.

## AMC M.A.605(b) Facilities

ED Decision 2015/029/R

It is acceptable to combine any or all of the office accommodation requirements into one office subject to the staff having sufficient room to carry out assigned tasks.



### AMC M.A.605(c) Facilities

ED Decision 2020/002/R

- Storage facilities for serviceable aircraft components should be clean, well-ventilated and maintained at an even dry temperature to minimise the effects of condensation. Manufacturer's storage recommendations should be followed for those aircraft components identified in such published recommendations.
- 2. Adequate storage racks should be provided and strong enough to hold aircraft components and provide sufficient support for large aircraft components such that the component is not damaged during storage.
- 3. All aircraft components, wherever practicable, should remain packaged in their protective material to minimise damage and corrosion during storage. A shelf life control system should be utilised and identity tags used to identify components.
- 4. Segregation means storing unserviceable components in a separate secured location from serviceable components.
- 5. Segregation and management of any unserviceable component should be ensured according to the pertinent procedure approved to that organisation.
- 6. Procedures should be defined by the organisation describing the decision process for the status of unserviceable components. This procedure should identify at least the following:
  - role and responsibilities of the persons managing the decision process;
  - description of the decision process to choose between maintaining, storing or mutilating a component;
  - traceability of decision.
- 7. Once unserviceable components or materials have been identified as unsalvageable in accordance with M.A.501(a)(3) or ML.A.504(c), the organisation should establish secure areas in which to segregate such items and to prevent unauthorised access. Unsalvageable components should be managed through a procedure to ensure that these components receive the appropriate final disposal according to M.A.504(b) or ML.A.504(d) or (e). The person responsible for the implementation of this procedure should be identified.

# M.A.606 Personnel requirements

Regulation (EU) No 1321/2014

(a) The organisation shall appoint an accountable manager, who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this Part.

Regulation (EU) No 1321/2014

(b) A person or group of persons shall be nominated with the responsibility of ensuring that the organisation is always in compliance with this Subpart. Such person(s) shall be ultimately responsible to the accountable manager.

Regulation (EU) No 1321/2014

(c) All point (b) persons shall be able to show relevant knowledge, background and appropriate experience related to aircraft and/or component maintenance.



Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

Regulation (EU) No 1321/2014

(d) The organisation shall have appropriate staff for the normal expected contracted work. The use of temporarily sub-contracted staff is permitted in the case of higher than normally expected contracted work and only for personnel not issuing a certificate of release to service.

Regulation (EU) 2020/270

(e) The qualification of all personnel involved in maintenance and airworthiness reviews shall be demonstrated and recorded.

Regulation (EU) No 1321/2014

(f) Personnel who carry out specialised tasks such as welding, non-destructive testing/inspection other than colour contrast shall be qualified in accordance with an officially recognised standard.

Regulation (EU) 2018/1142

- (g) The maintenance organisation shall have sufficient certifying staff to issue certificates of release to service for aircraft and components provided for in points M.A.612 and M.A.613. The staff shall comply with the following requirements:
  - 1. <u>Annex III (Part-66)</u> in the case of aircraft;
  - 2. Article 5(6) of this Regulation in the case of components.

Regulation (EU) No 1321/2014

- (h) By derogation from point (g), the organisation may use certifying staff qualified in accordance with the following provisions when providing maintenance support to operators involved in commercial operations, subject to appropriate procedures to be approved as part of the organisation's manual:
  - For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the organisation may issue a limited certifying staff authorisation to the aircraft commander on the basis of the flight crew licence held, provided that the organisation ensures that sufficient practical training has been carried out to ensure that such person can accomplish the airworthiness directive to the required standard;
  - 2. In the case of aircraft operating away from a supported location the organisation may issue a limited certifying staff authorisation to the aircraft commander on the basis of the flight crew licence, provided that the organisation ensures that sufficient practical training has been carried out to ensure that such person can accomplish the task to the required standard.

Regulation (EU) 2020/270

- (i) If the organisation performs airworthiness reviews and issues the corresponding airworthiness review certificate for ELA1 aircraft not involved in commercial operations in accordance with point ML.A.903 of Annex Vb (Part-ML), it shall have airworthiness review staff qualified and authorised meeting all of the following requirements:
  - 1. shall hold a certifying staff authorisation for the corresponding aircraft;
  - 2. shall have at least three years of experience as certifying staff;
  - 3. shall be independent from the continuing airworthiness management process of the aircraft being reviewed or shall have overall authority on the continuing airworthiness management process of the complete aircraft being reviewed;

- 4. shall have acquired knowledge of Subpart C of this Annex (Part-M) or Subpart C of Annex Vb (Part-ML);
- 5. shall have acquired proven knowledge of the procedures of the maintenance organisation relevant to the airworthiness review and issue of the airworthiness review certificate;
- 6. shall have been formally accepted by the competent authority after having performed an airworthiness review under the supervision of the competent authority or under the supervision of the organisation's airworthiness review staff in accordance with a procedure approved by the competent authority;
- 7. shall have performed at least one airworthiness review in the last twelve-month period.

## AMC M.A.606(a) Personnel requirements

ED Decision 2015/029/R

With regard to the accountable manager, it is normally intended to mean the chief executive officer of the maintenance organisation approved under M.A. Subpart F, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be necessarily knowledgeable on technical matters. When the accountable manager is not the chief executive officer, the competent authority will need to be assured that such an accountable manager has direct access to chief executive officer and has a sufficiency of maintenance funding allocation.

## AMC M.A.606(b) Personnel requirements

ED Decision 2015/029/R

- 1. Dependent upon the size of the organisation, the functions may be subdivided under individual managers or combined in any number of ways.
- 2. The maintenance organisation should have, dependent upon the extent of approval, an aircraft maintenance manager, a workshop manager all of whom should report to the accountable manager. In small maintenance organisations any manager may also be the accountable manager, and may also be the aircraft maintenance manager or the workshop manager.
- 3. The aircraft maintenance manager is responsible for ensuring that all maintenance required to be carried out, plus any defect rectification carried out during aircraft maintenance, is carried out to the design and quality standards specified in this Part. The aircraft maintenance manager is also responsible for any corrective action resulting from the M.A.616 organisational review.
- 4. The workshop manager is responsible for ensuring that all work on aircraft components is carried out to the standards specified in this Part and also responsible for any corrective action resulting from the <u>M.A.616</u> organisational review.
- 5. Notwithstanding the example sub-paragraphs 2 4 titles, the organisation may adopt any title for the foregoing managerial positions but should identify to the competent authority the titles and persons chosen to carry out these functions.



### AMC M.A.606(c) Personnel requirements

ED Decision 2020/002/R

- 1. All nominated persons should, in the normal way, be expected to satisfy the competent authority that they possess the appropriate experience and qualifications which are listed in paragraphs 2.1 to 2.5 below.
- 2. All nominated persons should have:
  - 2.1. practical experience and expertise in the application of aviation safety standards and safe maintenance practices;
  - 2.2. comprehensive knowledge of:
    - (a) <u>Part-M</u> and <u>Part-ML</u>, as applicable, and any associated requirements and procedures;
    - (b) the maintenance organisation manual;
  - 2.3. five years aviation experience of which at least three years should be practical maintenance experience;
  - 2.4. knowledge of the relevant type(s) of aircraft or components maintained. This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority. This assessment should be recorded.
    - Training courses should be as a minimum at a level equivalent to <u>Part-66 Appendix III</u> Level 1 General Familiarisation, and could be imparted by a <u>Part-147</u> organisation, by the manufacturer, or by any other organisation accepted by the competent authority.
  - 2.5. knowledge of maintenance standards.

# AMC M.A.606(d) Personnel requirements

ED Decision 2015/029/R

- 1. All staff are subjected to compliance with the organisation's procedures specified in the maintenance organisation manual relevant to their duties.
- 2. To have sufficient staff means that the approved maintenance organisation employs or contracts staff directly, even on a volunteer basis, for the anticipated maintenance workload.
- 3. Temporarily sub-contracted means the person is employed by another organisation and contracted by that organisation to the approved maintenance organisation.

# AMC M.A.606(e) Personnel requirements

ED Decision 2015/029/R

- 1. Personnel involved in maintenance should be assessed for competence by 'on the job' evaluation and/or by examination relevant to their particular job role within the organisation before unsupervised work is permitted.
- 2. Adequate initial and recurrent training should be provided and recorded to ensure continued competence.



### AMC M.A.606(f) Personnel requirements

ED Decision 2021/009/R; ED Decision 2020/002/R

- 1. Non-destructive testing means such testing specified by the type certificate holder of the aircraft, engine or propeller in the M.A.401(b) or ML.A.401(b) maintenance data for in service aircraft/aircraft components for the purpose of determining the continued fitness of the product to operate safely.
- 2. Appropriately qualified means to level 1, 2 or 3 as defined by European Standard EN 4179 dependent upon the non-destructive testing function to be carried out.
- 3. Notwithstanding the fact that level 3 personnel may be qualified via EN 4179 to establish and authorise methods, techniques, etc., this does not permit such personnel to deviate from methods and techniques published by the type certificate holder/manufacturer in the form of continued airworthiness data, such as in non-destructive test manuals or service bulletins, unless the manual or service bulletin expressly permits such deviation.
- 3. Notwithstanding the fact that level 3 personnel may be qualified via EN 4179 to establish and authorise methods, techniques, etc., this does not permit such personnel to deviate from methods and techniques published in the maintenance data, unless the maintenance data expressly permits such deviation.
  - [applicable from 18 May 2022]
- 4. Notwithstanding the general references in EN 4179 to a national aerospace NDT board, all examinations should be conducted by personnel or organisations under the general control of such a board. In the absence of a national aerospace NDT board, examinations should be conducted by personnel or organisations under the general control of the NDT board of a Member State designated by the competent authority.
- 5. Particular non-destructive test means any one or more of the following: dye penetrant, magnetic particle, eddy current, ultrasonic and radiographic methods including X ray and gamma ray.
- 6. In addition it should be noted that new methods are and will be developed, such as, but not limited to thermography and shearography, which are not specifically addressed by EN 4179. Until such time as an agreed standard is established such methods should be carried out in accordance with the particular equipment manufacturers' recommendations including any training and examination process to ensure competence of the personnel with the process.
- 7. Any approved maintenance organisation that carries out continued airworthiness non-destructive testing should establish qualification procedures for non-destructive testing.
- 8. Boroscoping and other techniques such as delamination coin tapping are non-destructive inspections rather than non-destructive testing. Notwithstanding such differentiation, approved maintenance organisation should establish a procedure to ensure that personnel who carry out and interpret such inspections are properly trained and assessed for their competence with the process. Non-destructive inspections, not being considered as non-destructive testing by M.A. Subpart F are not listed in Appendix IV to Part-M under class rating D1.
- 9. The referenced standards, methods, training and procedures should be specified in the maintenance organisation manual.
- 10. Any such personnel who intend to carry out and/or control a non-destructive test for which they were not qualified prior to the effective date of <a href="Part-M">Part-M</a> should qualify for such non-destructive test in accordance with EN 4179.

In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

## AMC M.A.606(h)(2) Personnel requirements

ED Decision 2015/029/R

- 1. For the issue of a limited certification authorisation the commander should hold either a valid air transport pilot license (ATPL), or commercial pilots license (CPL). In addition, the limited certification authorisation is subject to the maintenance organisation manual containing procedures to address the following:
  - (a) Completion of adequate airworthiness regulation training.
  - (b) Completion of adequate task training for the specific task on the aircraft. The task training should be of sufficient duration to ensure that the individual has a thorough understanding of the task to be completed and should involve training in the use of associated maintenance data.
  - (c) Completion of the procedural training.

The above procedures should be specified in the maintenance organisation manual and be accepted by the competent authority.

- 2. Typical tasks that may be certified and/or carried out by the commander holding an ATPL or CPL are minor maintenance or simple checks included in the following list:
  - (a) Replacement of internal lights, filaments and flash tubes.
  - (b) Closing of cowlings and refitment of quick access inspection panels.
  - (c) Role changes, e.g., stretcher fit, dual controls, FLIR, doors, photographic equipment etc.
  - (d) Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers that are easily accessible but not requiring the use of special tools.
  - (e) Any check/replacement involving simple techniques consistent with this AMC and as agreed by the competent authority.
- 3. The authorisation should have a finite life of twelve months subject to satisfactory recurrent training on the applicable aircraft type.

## M.A.607 Certifying staff and airworthiness review staff

Regulation (EU) 2019/1383

- (a) In addition to point M.A.606(g), certifying staff can only exercise their privileges, if the organisation has ensured:
  - 1. that certifying staff can demonstrate that they meet the requirements of point (b) of point <u>66.A.20</u> of Annex III (Part-66) or, where that Annex so requires, the requirements of the law of the Member State;
  - that certifying staff have an adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures.

Regulation (EU) 2015/1088

- (b) In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff is available, the maintenance organisation contracted to provide maintenance support may issue a one-off certification authorisation:
  - 1. to one of its employees holding type qualifications on aircraft of similar technology, construction and systems; or
  - 2. to any person with not less than three years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organisation appropriately approved under this Part at that location and the contracted organisation obtains and holds on file evidence of the experience and the licence of that person.

All such cases must be reported to the competent authority within seven days after issuing such certification authorisation. The approved maintenance organisation issuing the one-off certification authorisation shall ensure that any such maintenance that could affect flight safety is re-checked.

Regulation (EU) 2015/1088

(c) The approved maintenance organisation shall record all details concerning certifying staff and airworthiness review staff and maintain a current list of all certifying staff and airworthiness review staff together with their scope of approval as part of the organisation's manual pursuant to point M.A.604(a)5.

## AMC M.A.607 Certifying staff and airworthiness review staff

D Decision 2015/029/R

- 1. Adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures means that the person has received training and has relevant maintenance experience on the product type and associated organisation procedures such that the person understands how the product functions, what are the more common defects with associated consequences.
- 2. All prospective certifying staff are required to be assessed for competence, qualification and capability related to intended certifying duties. Competence and capability can be assessed by having the person work under the supervision of another certifying person for sufficient time to arrive at a conclusion. Sufficient time could be as little as a few weeks if the person is fully exposed to relevant work. The person need not be assessed against the complete spectrum of intended duties. When the person has been recruited from another approved maintenance organisation and was a certifying person in that organisation then it is reasonable to accept a written confirmation from the previous organisation.
- 3. The organisation should hold copies of all documents that attest to qualification, and to recent experience.



## AMC M.A.607(c) Certifying staff and airworthiness review staff

ED Decision 2020/002/R

- 1. The following minimum information as applicable should be kept on record in respect of each certifying person:
  - (a) name;
  - (b) date of birth;
  - (c) basic training;
  - (d) type training;
  - (e) recurrent training;
  - (f) specialised training;
  - (g) experience;
  - (h) qualifications relevant to the approval;
  - (i) scope of the authorisation and personal authorisation reference;
  - (j) date of first issue of the authorisation;
  - (k) if appropriate expiry date of the authorisation.
- 2. The following minimum information, as applicable, should be kept on record in respect of each airworthiness review person:
  - (a) name;
  - (b) date of birth;
  - (c) certifying staff authorisation;
  - (d) experience as certifying staff on ELA1 aircraft;
  - (e) qualifications relevant to the approval (knowledge of relevant parts of Part-ML and knowledge of the relevant airworthiness review procedures);
  - (f) scope of the airworthiness review authorisation and personal authorisation reference;
  - (g) date of the first issue of the airworthiness review authorisation; and
  - (h) if appropriate, expiry date of the airworthiness review authorisation.
- 3. Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.
- 4. The competent authority should be granted access to the records upon request.

## M.A.608 Components, equipment and tools

Regulation (EU) 2018/1142

- (a) The organisation shall:
  - hold the equipment and tools specified in the maintenance data described in point <u>M.A.609</u> or verified equivalents as listed in the maintenance organisation manual as necessary for day-to-day maintenance within the scope of the approval; and,

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- 2. demonstrate that it has access to all other equipment and tools used only on an occasional basis.
- (b) Tools and equipment shall be controlled and calibrated to an officially recognised standard. Records of such calibrations and the standard used shall be kept by the organisation.
- (c) The organisation shall inspect, classify and appropriately segregate all incoming components, standard parts and materials.

## AMC M.A.608(a) Components, equipment and tools

ED Decision 2015/029/R

- 1. Once the applicant for M.A. Subpart F approval has determined the intended scope of approval for consideration by the competent authority, it will be necessary to show that all tools and equipment as specified in the maintenance data can be made available when needed.
- 2. All such tools should be clearly identified and listed in a control register including any personal tools and equipment that the organisation agrees can be used.
- 3. For tools required on an occasional basis, the organisation should ensure that they are controlled in terms of servicing or calibration as required.

## AMC M.A.608(b) Components, equipment and tools

ED Decision 2015/029/R

- The control of these tools and equipment requires that the organisation has a procedure to inspect/service and, where appropriate, calibrate such items on a regular basis and indicate to users that the item is within any inspection or service or calibration time-limit. A clear system of labelling all tooling, equipment and test equipment is therefore necessary giving information on when the next inspection or service or calibration is due and if the item is unserviceable for any other reason where it may not be obvious. A register should be maintained for all the organisation's precision tooling and equipment together with a record of calibrations and standards used.
- 2. Inspection, service or calibration on a regular basis should be in accordance with the equipment manufacturers' instructions except where the M.A. Subpart F organisation can show by results that a different time period is appropriate in a particular case.
- 3. In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

## M.A.609 Maintenance data

Regulation (EU) 2019/1383

The approved maintenance organisation shall hold and use applicable current maintenance data specified in point M.A.401 of this Annex or in point ML.A.401 of Annex Vb (Part-ML), as applicable, in the performance of maintenance, including modifications and repairs. However, in the case of customer-provided maintenance data, the organisation shall only hold and use such data when the maintenance work is in progress.



### AMC M.A.609 Maintenance Data

ED Decision 2015/029/R

When an organisation uses customer provided maintenance data, the scope of approval indicated in the maintenance organisation manual should be limited to the individual aircraft covered by the contracts signed with those customers unless the organisation also holds its own complete set of maintenance data for that type of aircraft.

### M.A.610 Maintenance work orders

Regulation (EU) No 1321/2014

Before the commencement of maintenance a written work order shall be agreed between the organisation and the organisation requesting maintenance to clearly establish the maintenance to be carried out.

### AMC M.A.610 Maintenance work orders

ED Decision 2015/029/R

'A written work order' may take the form of, but not limited to, the following:

- A formal document or form specifying the work to be carried out. This form may be provided by the continuing airworthiness management organisation managing the aircraft, or by the maintenance organisation undertaking the work, or by the owner/operator himself;
- An entry in the aircraft log book specifying the defect that needs to be corrected.

### M.A.611 Maintenance standards

Regulation (EU) 2019/1383

All maintenance shall be carried out in accordance with the requirements of Subpart D, Section A of this Annex or with the requirements of Subpart D, Section A of Annex Vb (Part-ML), as set out in Article 3 paragraph 1.

## M.A.612 Aircraft certificate of release to service

Regulation (EU) 2019/1383

Upon completion of all required aircraft maintenance in accordance with this Subpart, an aircraft CRS shall be issued in accordance with point  $\underline{\text{M.A.801}}$  of this Annex or point  $\underline{\text{ML.A.801}}$  of Annex Vb (Part-ML), as set out in Article 3 paragraph 1.

## M.A.613 Component certificate of release to service

Regulation (EU) 2019/1383

- (a) Upon completion of all required component maintenance in accordance with this Subpart, a component CRS shall be issued in accordance with point M.A.802 of this Annex or with point ML.A.802 of Annex Vb (Part-ML), as applicable. An EASA Form 1 shall be issued, except for those components maintained in accordance with points (b) or (d) of point M.A.502, for components fabricated in accordance with point (c) of point M.A.603 of this Annex and for components in respect of which point ML.A.502 of Annex Vb (Part-ML) provides otherwise.
- (b) The component CRS document, EASA Form 1, may be generated from a computer system.



### AMC M.A.613(a) Component certificate of release to service

ED Decision 2020/002/R

- An aircraft component which has been maintained off the aircraft requires the issuance of a CRS for such maintenance and another CRS in regard to being installed properly on the aircraft when such action occurs. When an organisation maintains a component for use by the same organisation, an <u>EASA Form 1</u> may not be necessary depending upon the organisation's internal release procedures defined in the maintenance organisation exposition.
- 2. In the case of components in storage prior to <a href="Part-145">Part-145</a>, <a href="Part-24">Part-M</a> and Part-21 and not released on an EASA Form 1 or equivalent in accordance with <a href="M.A.501(a">M.A.501(a</a>) or removed serviceable from a serviceable aircraft which have been withdrawn from service, this paragraph provides additional guidance regarding the conditions under which an EASA Form 1 may be issued.
  - 2.1. An EASA Form 1 may be issued for an aircraft component which has been:
    - Maintained before <u>Part-145</u>, or <u>Part-M</u> became effective or manufactured before Part-21 became effective.
    - Used on an aircraft and removed in a serviceable condition. Examples include leased and loaned aircraft components.
    - Removed from aircraft which have been withdrawn from service, or from aircraft which have been involved in abnormal occurrences such as accidents, incidents, heavy landings or lightning strikes.
    - Components maintained by an unapproved organisation.
  - 2.2. An appropriately rated M.A. Subpart F maintenance organisation may issue an EASA Form 1 as detailed in this AMC subparagraph 2.5 to 2.9, as appropriate, in accordance with the procedures detailed in the manual as approved by the competent authority. The appropriately rated M.A. Subpart F maintenance organisation is responsible for ensuring that all reasonable measures have been taken to ensure that only approved and serviceable aircraft components are issued an EASA Form 1 under this paragraph.
  - 2.3. For the purposes of this paragraph 2 only, 'appropriately rated' means an organisation with an approval class rating for the type of component or for the product in which it may be installed.
  - 2.4. An EASA Form 1 issued in accordance with this paragraph 2 should be issued by signing in block 14b and stating 'Inspected/Tested' in block 11. In addition, block 12 should specify:
    - 2.4.1. when the last maintenance was carried out and by whom;
    - 2.4.2. if the component is unused, when the component was manufactured and by whom with a cross-reference to any original documentation which should be included with the Form;
    - 2.4.3. a list of all ADs, repairs and modifications known to have been incorporated. If no ADs or repairs or modifications are known to be incorporated then this should be so stated;
    - 2.4.4. detail of life used for life-limited parts and time-controlled components being any combination of fatigue, overhaul or storage life;
    - 2.4.5. for any aircraft component having its own maintenance history record, reference to the particular maintenance history record as long as the record contains the

details that would otherwise be required in block 12. The maintenance history record and acceptance test report or statement, if applicable, should be attached to the EASA Form 1.

### 2.5. New/unused aircraft components

2.5.1. Any unused aircraft component in storage without an EASA Form 1 up to the effective date(s) for Part-21 that was manufactured by an organisation acceptable to the competent authority at the time may be issued an EASA Form 1 by an appropriately rated maintenance organisation approved under M.A. Subpart F. The EASA Form 1 should be issued in accordance with the following subparagraphs which should be included in a procedure within the maintenance organisation manual.

Note 1: It should be understood that the release of a stored but unused aircraft component in accordance with this paragraph represents a maintenance release under M.A. Subpart F and not a production release under Part-21. It is not intended to bypass the production release procedure agreed by the Member State for parts and subassemblies intended for fitment on the manufacturers own production line.

- (a) An acceptance test report or statement should be available for all used and unused aircraft components that are subject to acceptance testing after manufacturing or maintenance as appropriate.
- (b) The aircraft component should be inspected for compliance with the manufacturer's instructions and limitations for storage and condition including any requirement for limited storage life, inhibitors, controlled climate and special storage containers. In addition, or in the absence of specific storage instructions, the aircraft component should be inspected for damage, corrosion and leakage to ensure good condition.
- (c) The storage life used of any storage life-limited parts should be established.
- 2.5.2. If it is not possible to establish satisfactory compliance with all applicable conditions specified in subparagraph 2.5.1 (a) to (c) inclusive, the aircraft component should be disassembled by an appropriately rated organisation and subjected to a check for incorporated ADs, repairs and modifications and inspected/tested in accordance with the maintenance data to establish satisfactory condition and, if relevant, all seals, lubricants and life-limited parts replaced. Upon satisfactory completion after reassembly, an EASA Form 1 may be issued stating what was carried out and the reference to the maintenance data included.
- 2.6. Used aircraft components removed from a serviceable aircraft.
  - 2.6.1. Serviceable aircraft components removed from a Member State registered aircraft may be issued an EASA Form 1 by an appropriately rated organisation subject to compliance with this subparagraph.
    - (a) The organisation should ensure that the component was removed from the aircraft by an appropriately qualified person.
    - (b) The aircraft component may only be deemed serviceable if the last flight operation with the component fitted revealed no faults on that component or related system.

- (c) The aircraft component should be inspected for satisfactory condition including in particular damage, corrosion or leakage and compliance with any additional maintenance data.
- (d) The aircraft record should be researched for any unusual events that could affect the serviceability of the aircraft component such as involvement in accidents, incidents, heavy landings or lightning strikes. Under no circumstances may an <u>EASA Form 1</u> be issued in accordance with this paragraph 2.6 if it is suspected that the aircraft component has been subjected to extremes of stress, temperatures or immersion which could affect its operation.
- (e) A maintenance history record should be available for all used serialised aircraft components.
- (f) Compliance with known modifications and repairs should be established.
- (g) The flight hours/cycles/landings as applicable of any life-limited parts and time-controlled components including time since overhaul should be established.
- (h) Compliance with known applicable airworthiness directives should be established.
- (i) Subject to satisfactory compliance with this subparagraph 2.6.1, an EASA Form 1 may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed
- 2.6.2. Serviceable aircraft components removed from a non-Member State registered aircraft may only be issued an EASA Form 1 if the components are leased or loaned from the maintenance organisation approved under M.A. Subpart F who retains control of the airworthiness status of the components. An EASA Form 1 may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.
- 2.7. Used aircraft components removed from an aircraft withdrawn from service. Serviceable aircraft components removed from a Member State registered aircraft withdrawn from service may be issued an EASA Form 1 by a maintenance organisation approved under M.A. Subpart F subject to compliance with this subparagraph.
  - (a) Aircraft withdrawn from service are sometimes dismantled for spares. This is considered to be a maintenance activity and should be accomplished under the control of an organisation approved under <u>M.A. Subpart F</u>, employing procedures approved by the competent authority.
  - (b) To be eligible for installation, components removed from such aircraft may be issued with an EASA Form 1 by an appropriately rated organisation following a satisfactory assessment.
  - (c) As a minimum, the assessment will need to satisfy the standards set out in paragraphs 2.5 and 2.6 as appropriate. This should, where known, include the possible need for the alignment of scheduled maintenance that may be necessary to comply with the maintenance programme applicable to the aircraft on which the component is to be installed.

- (d) Irrespective of whether the aircraft holds a certificate of airworthiness or not, the organisation responsible for certifying any removed component should satisfy itself that the manner in which the components were removed and stored are compatible with the standards required by M.A. Subpart F.
- (e) A structured plan should be formulated to control the aircraft disassembly process. The disassembly is to be carried out by an appropriately rated organisation under the supervision of certifying staff, who will ensure that the aircraft components are removed and documented in a structured manner in accordance with the appropriate maintenance data and disassembly plan.
- (f) All recorded aircraft defects should be reviewed and the possible effects these may have on both normal and standby functions of removed components are to be considered.
- (g) Dedicated control documentation is to be used as detailed by the disassembly plan, to facilitate the recording of all maintenance actions and component removals performed during the disassembly process. Components found to be unserviceable are to be identified as such and quarantined pending a decision on the actions to be taken. Records of the maintenance accomplished to establish serviceability are to form part of the component maintenance history.
- (h) Suitable M.A. Subpart F facilities for the removal and storage of removed components are to be used which include suitable environmental conditions, lighting, access equipment, aircraft tooling and storage facilities for the work to be undertaken. While it may be acceptable for components to be removed, given local environmental conditions, without the benefit of an enclosed facility subsequent disassembly (if required) and storage of the components should be in accordance with the manufacturer's recommendations.
- 2.8. Used aircraft components maintained by organisations not approved in accordance with M.A <u>Subpart F</u>, <u>Part-145</u> or Part-CAO.

For used components maintained by a maintenance organisation not approved under <u>Part-M Subpart F</u> or <u>Part-145</u>, due care should be taken before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under <u>M.A. Subpart F</u> should establish satisfactory conditions by:

- (a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data,
- replacing of all life-limited parts and time-controlled components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition,
- (c) reassembling and testing as necessary the component,
- (d) completing all certification requirements as specified in M.A.613.

In the case of used components maintained by an FAA Part-145 repair station (USA) or by TCCA CAR573 approved maintenance organisations (Canada) that does not hold an EASA Part-145 or M.A. Subpart F approval, the conditions (a) through (d) described above may be replaced by the following conditions:

(a) availability of an 8130-3 (FAA) or TCCA 24-0078 (TCCA) or an Authorized Release Certificate Form One (TCCA),

- (b) verification of compliance with all applicable airworthiness directives,
- (c) verification that the component does not contain repairs or modifications that have not been approved in accordance with Part-21,
- (d) inspection for satisfactory condition including in particular damage, corrosion or leakage,
- (e) issuance of an EASA Form 1 in compliance with paragraphs 2.2, 2.3 and 2.4.

These alleviated requirements are based on the fact that credit can be taken for their technical capabilities and their competent authority oversight, as attested by the following documents:

- Maintenance Annex Guidance (MAG) between the FAA and EASA,
- Maintenance Annex Guidance (MAG) between the EASA and TCCA.
- 2.9. Used aircraft components removed from an aircraft involved in an accident or incident. Such components should only be issued with an <a href="EASA Form 1">EASA Form 1</a> when processed in accordance with paragraph 2.7 and a specific work order including all additional necessary tests and inspections made necessary by the accident or incident. Such a work order may require input from the TC holder or original manufacturer as appropriate. This work order should be referenced in block 12.
- 3. A certificate should not be issued for any component when it is known that the component is unserviceable except in the case of a component undergoing a series of maintenance processes at several approved maintenance organisations and the component needs a certificate for the previous maintenance process carried out for the next approved maintenance organisation to accept the component for subsequent maintenance processes. In such a case, a clear statement of limitation should be endorsed in block.
- 4. The certificate is to be used for export/import purposes, as well as for domestic purposes, and serves as an official certificate for components from the manufacturer/maintenance organisation to users. It should only be issued by organisations approved by a competent authority or the Agency as applicable within the scope of the approval.

### M.A.614 Maintenance and airworthiness review records

egulation (EU) 2020/270

- (a) The approved maintenance organisation shall record all details of work carried out. Records necessary to prove all requirements have been met for the issue of the certificate of release to service including the subcontractor's release documents and for the issue of any airworthiness review certificate shall be retained.
- (b) The approved maintenance organisation shall provide a copy of each CRS to the aircraft owner or operator, together with a copy of any detailed maintenance records associated with the work carried out and necessary to demonstrate compliance with point <u>M.A.305</u> of this Annex (Part-M) or <u>ML.A.305</u> of Annex Vb (Part-ML), as applicable.
- (c) The approved maintenance organisation shall retain a copy of all maintenance records and any associated maintenance data for three years from the date the aircraft or aircraft component to which the work relates was released from the approved maintenance organisation. In addition, it shall retain a copy of all the records related to the issue of airworthiness review certificates for three years from the date of issue and shall provide a copy of them to the owner of the aircraft.

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- 1. The records under this point shall be stored in a manner that ensures protection from damage, alteration, and theft.
- 2. All computer hardware used to ensure backup shall be stored in a different location from that containing the working data in an environment that ensures they remain in good condition.
- Where an approved maintenance organisation terminates its operation, all retained maintenance records covering the last three years shall be distributed to the last owner or customer of the respective aircraft or component or shall be stored as specified by the competent authority.

## AMC M.A.614(a) Maintenance and airworthiness review records

ED Decision 2020/002/R

- 1. Properly executed and retained records provide owners, operators and maintenance personnel with information essential in controlling unscheduled and scheduled maintenance, and troubleshooting to eliminate the need for re-inspection and rework to establish airworthiness.
- The prime objective is to have secure and easily retrievable records with comprehensive and legible contents. The aircraft record should contain basic details of all serialised aircraft components and all other significant aircraft components installed, to ensure traceability to such installed aircraft component documentation, associated maintenance data and data for modifications and repairs.
- 3. The maintenance record can be either a paper or computer system or any combination of both. The records should remain legible throughout the required retention period.
- 4. Paper systems should use robust material which can withstand normal handling and filing.
- 5. Computer systems may be used to control maintenance and/or record details of maintenance work carried out. Computer systems used for maintenance should have at least one backup system which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

## AMC M.A.614(c) Maintenance and airworthiness review records

FD Decision 2015/029/R

Associated maintenance data is specific information such as repair and modification data. This does not necessarily require the retention of all aircraft maintenance manual, component maintenance manual, parts catalogues etc. issued by the TC holder or STC holder. Maintenance records should refer to the revision status of the data used.

## M.A.615 Privileges of the organisation

Regulation (EU) 2019/1383

The maintenance organisation approved in accordance with Subpart F, Section A of this Annex may:

- (a) maintain any aircraft and/or component for which it is approved at the locations specified in the approval certificate and the maintenance organisation manual;
- (b) arrange for the performance of specialised services under the control of the maintenance organisation at another organisation appropriately qualified, as described in the maintenance organisation manual;

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- (c) maintain any aircraft or component for which it is approved at any location, where the need of such maintenance arises either from the unserviceability of the aircraft or from the necessity of supporting occasional maintenance and subject to compliance with the conditions specified in the maintenance organisation manual;
- (d) issue certificates of release to service, upon completion of maintenance, in accordance with point M.A.612 or M.A.613 of this Annex;
- (e) if specifically approved to do so for ELA1 aircraft not involved in commercial operations, perform airworthiness reviews and issue the corresponding airworthiness review certificate in accordance with the conditions specified in point ML.A.903 of Annex Vb (Part-ML).

The organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data and certifying staff are available.

### **GM M.A.615 Privileges of the organisation**

ED Decision 2015/029/R

<u>M.A.615</u> states that the organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data, and certifying staff are available.

This provision is intended to cover the situation where the larger organisation may temporarily not hold all the necessary tools, equipment, etc. for an aircraft type or variant specified in the organisation's approval. This paragraph means that the competent authority need not amend the approval to delete the aircraft type or variants on the basis that it is a temporary situation and there is a commitment from the organisation to re-acquire tools, equipment, etc. before maintenance on the type may recommence.

# GM M.A.615(a) Privileges of the organisation

ED Decision 2015/029/R

M.A.615(a) applies also to facilities which may not be individually approved by the competent authority, such as those described in AMC M.A.605(a) for ELA2 aircraft.

## AMC M.A.615(b) Privileges of the organisation

ED Decision 2020/002/R

M.A.615(b) refers to work carried out by another organisation which is not appropriately approved under M.A. Subpart F, <u>Part-145</u> or Part-CAO to carry out such tasks.

The intent is to permit the acceptance of specialised maintenance services, such as, but not limited to, non-destructive testing, surface treatment, heat-treatment, welding, fabrication of specified parts for minor repairs and modifications, etc., without the need of <u>Subpart F</u> approval for those tasks.

The requirement that the organisation performing the specialised services must be 'appropriately qualified' means that it should meet an officially recognised standard or, otherwise, it should be acceptable to the competent authority (through the approval of the Maintenance Organisation Manual).

'Under the control of the <u>Subpart F</u> organisation' means that the Subpart F organisation should investigate the capability of the subcontracted organisation (including qualifications, facilities, equipment and materials) and ensure that such organisation:

- Receives appropriate maintenance instructions and maintenance data for the task to be performed.
- Properly records the maintenance performed in the <u>Subpart F</u> airworthiness records.
- Notifies the <u>Subpart F</u> organisation for any deviation or non-conformity, which has arisen during such maintenance.

The CRS may be issued either at the subcontractors or at the organisation facility by authorised certifying staff, and always under the <u>M.A. Subpart F</u> organisation reference. Such staff would normally come from the <u>M.A. Subpart F</u> organisation but may otherwise be a person from the subcontractor who meets the <u>M.A. Subpart F</u> organisation certifying staff standard which itself is approved by the competent authority via the Maintenance Organisation Manual.

Subcontracted specialised services organisations should be listed in the Maintenance Organisation Manual of the Subpart F organisation together with their qualifications, and the associated control procedures.

## M.A.616 Organisational review

Regulation (EU) No 1321/2014

To ensure that the approved maintenance organisation continues to meet the requirements of this Subpart, it shall organise, on a regular basis, organisational reviews.

## AMC M.A.616 Organisational review

ED Decision 2015/029/R

- 1. The primary objectives of the organisational review are to enable the approved maintenance organisation to ensure that it can deliver a safe product and that approved maintenance organisation remains in compliance with the requirements.
- 2. The approved maintenance organisation should identify:
  - 2.1. the person responsible for the organisational review;
  - 2.2. the frequency of the reviews;
  - 2.3. the scope and content of the reviews;
  - 2.4. the persons accomplishing the reviews;
  - 2.5. the procedure for planning, performing and processing review findings; and,
  - 2.6. the procedure for ensuring corrective actions are carried out in the appropriate time frame.
- 3. The organisation quality system as specified in <u>Part-145</u> provides an acceptable basic structure for the organisational review system for organisations with more than 10 maintenance staff, dependent upon the complexity of the organisation.
- 4. Appendix VIII to AMC M.A.616 should be used to manage the organisational reviews.



## M.A.617 Changes to the approved maintenance organisation

Regulation (EU) 2015/1088

In order to enable the competent authority to determine continued compliance with this Part, the approved maintenance organisation shall notify it of any proposal to carry out any of the following changes, before such changes take place:

- 1. the name of the organisation;
- 2. the location of the organisation;
- 3. additional locations of the organisation;
- 4. the accountable manager;
- 5. any of the persons specified in point M.A.606(b);
- 6. the facilities, equipment, tools, material, procedures, work scope, certifying staff and airworthiness review staff that could affect the approval.

In the case of proposed changes in personnel not known to the management beforehand, these changes shall be notified at the earliest opportunity.

## AMC M.A.617 Changes to the approved maintenance organisation

ED Decision 2015/029/R

The competent authority should be given adequate notification of any proposed changes in order to enable the maintenance organisation to remain approved if agreed by the competent authority during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases.

# M.A.618 Continued validity of approval

Regulation (EU) 2021/700

- (a) An approval shall remain valid until 24 March 2022, subject to:
  - 1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under point M.A.619, and;
  - 2. the competent authority being granted access to the organisation to determine continued compliance with this Part, and;
  - the approval not being surrendered or revoked;
- (b) Upon surrender or revocation, the approval certificate shall be returned to the competent authority.

# M.A.619 Findings

Regulation (EU) 2019/1383

- (a) A level 1 finding is any finding of significant non-compliance with the requirements of this Annex and Annex Vb (Part-ML) which lowers the safety standard and seriously endangers flight safety.
- (b) A level 2 finding is any finding of non-compliance with the requirements of this Annex and Annex Vb (Part-ML) which may lower the safety standard and may endanger flight safety.
- (c) After receipt of notification of findings according to point M.B.605, the holder of the maintenance organisation approval shall define a corrective action plan and demonstrate



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corrective action to the satisfaction of the competent authority within a period agreed with this authority.



# SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

# M.A.701 Scope

Regulation (EU) No 1321/2014

This Subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the management of aircraft continuing airworthiness.

# M.A.702 Application

Regulation (EU) No 1321/2014

An application for issue or change of a continuing airworthiness management organisation approval shall be made on a form and in a manner established by the competent authority.

# AMC M.A.702 Application

ED Decision 2020/002/R

An application should be made on an EASA Form 2 (<u>Appendix IX to AMC M.A.602 and AMC M.A.702</u>) or equivalent acceptable to the competent authority.

The <u>EASA Form 2</u> is valid for the application for <u>M.A. Subpart F</u>, Part CAO, Part CAMO, <u>Part-145</u> and <u>M.A. Subpart G</u> organisations. Organisations applying for several approvals may do so using a single EASA Form 2.

# M.A.703 Extent of approval

Regulation (EU) 2015/1536

- (a) The approval is indicated on a certificate included in Appendix VI issued by the competent authority.
- (b) Notwithstanding point (a), for licenced air carriers in accordance with Regulation (EC) No 1008/2008, the approval shall be part of the air operator certificate issued by the competent authority, for the aircraft operated.
- (c) The scope of work deemed to constitute the approval shall be specified in the continuing airworthiness management exposition in accordance with point M.A.704.

## M.A.704 Continuing airworthiness management exposition

Regulation (EU) 2020/270

- (a) The continuing airworthiness management organisation shall provide a continuing airworthiness management exposition containing the following information:
  - a statement signed by the accountable manager confirming that the organisation will at all times work in accordance with this Annex (Part-M) and Annex Vb (Part-ML), as applicable;
  - 2. the organisation's scope of work, and;
  - 3. the title(s) and name(s) of person(s) referred to in points  $\underline{M.A.706(a)}$ ,  $\underline{M.A.706(d)}$  and  $\underline{M.A.706(i)}$ , and;

- 4. an organisation chart showing associated chains of responsibility between all the person(s) referred to in points M.A.706(a), M.A.706(c), M.A.706(d) and M.A.706(i), and;
- 5. a list of the airworthiness staff referred to in point M.A.707, specifying, where applicable, the staff authorised to issue permits to fly in accordance with point M.A.711(c), and;
- 6. a general description and location of the facilities, and;
- 7. the procedures specifying how the organisation ensures compliance with this Annex (Part-M) and Annex Vb (Part-ML), as applicable, and;
- 8. the continuing airworthiness management exposition amendment procedures, and;
- 9. the list of approved aircraft maintenance programmes, or, for aircraft not used by licenced air carriers in accordance with Regulation (EC) No 1008/2008, the list of 'generic' and 'baseline' maintenance programmes.
- (b) The continuing airworthiness management exposition and its amendments shall be approved by the competent authority.
- (c) Notwithstanding point (b), minor amendments to the exposition may be approved indirectly through an indirect approval procedure. The indirect approval procedure shall define the minor amendment eligible, be established by the continuing airworthiness management organisation as part of the exposition and be approved by the competent authority responsible for that continuing airworthiness management organisation.

## AMC1 M.A.704 Continuing airworthiness management exposition

ED Decision 2020/002/R

- 1. The purpose of the continuing airworthiness management exposition is to set forth the procedures, means and methods of the CAMO. Compliance with its contents will assure compliance with <a href="Part-M">Part-M</a> and, as applicable, Part-ML requirements.
- 2. A continuing airworthiness management exposition should comprise:
  - Part 0 General organisation
  - Part 1 Continuing airworthiness procedures
  - Part 2 Quality system or organisational review (as applicable)
  - Part 3 Contracted maintenance management of maintenance (liaison with maintenance organisations)
  - Part 4 Airworthiness review procedures (if applicable)
- 3. Personnel should be familiar with those parts of the continuing airworthiness management exposition that are relevant to their tasks.
- 4. The CAMO should specify in the exposition who is responsible for the amendment of the document. Unless otherwise agreed by the approving competent authority, the person responsible for the management of the quality system or for the organisational review should be responsible for monitoring and amending the continuing airworthiness management exposition, including associated procedure's manuals, and the submission of proposed amendments to the competent authority. The competent authority may agree to a procedure, and its agreement will be stated in the amendment control section of the continuing airworthiness management exposition defining the class of amendments, which can be

- incorporated without the prior consent of the competent authority ('indirect approval procedure').
- 5. The CAMO may use electronic data processing (EDP) for the publication of the continuing airworthiness management exposition. The continuing airworthiness management exposition should be made available to the approving competent authority in a form acceptable to the latter. Attention should be paid to the compatibility of the EDP publication systems with the necessary dissemination, both internally and externally, of the continuing airworthiness management exposition.
- 6. The continuing airworthiness management exposition should contain information, as applicable, on how the CAMO complies with CDCCL instructions.
- 7. <u>Appendix V to AMC1 M.A.704</u> contains an example of a continuing airworthiness management exposition layout.

# AMC2 M.A.704 Continuing airworthiness management exposition

ED Decision 2020/002/R

#### **EXPOSITION LAYOUT FOR A CAMO HOLDING A MAINTENANCE ORGANISATION APPROVAL**

- Where a CAMO is also approved to another Part, the exposition or manual required by the other Part may form the basis of the continuing airworthiness management exposition in a combined document.
- 2. Example for a combined CAMO and <u>Part-145</u> organisation:

Part-145	Exposition	(see equivalent paragra	phs in	AMC 145.A.70(a	))
I UIL ITS	LAPOSITION	See equivalent paragra	16112 111	7 (IVIC 143.7 (.7 0) a	,,

Part 0 General organisation

Part 1 Management

Part 2 Maintenance procedures

Part L2 Additional line maintenance procedures

Part 3 Quality system and/or organisational review (as applicable)

This chapter should cover the functions specified in M.A.712 'Quality system' and 145.A.65 'Safety and quality system'.

Part 4 Contracts

This chapter should include:

- the contracts of the CAMO with the owners/operators as per <u>Appendix I to Part-M</u>;
- the CAMO procedures for the management of maintenance and liaison with maintenance organisations.

Part 5	Appendices (sample of documents)
Part 6	Continuing airworthiness management procedures
Part 7	FAA supplement (if applicable)
Part 8	TCCA supplement (if applicable)
Part 9	Airworthiness review procedures (if applicable)

Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

- 3. Example for a combined CAMO and M.A. Subpart F organisation:
  - Part 0 General organisation
  - Part 1 General
  - Part 2 Description
  - Part 3 General procedures
  - Part 4 Working procedures

This part should contain, among other things, procedures for quality system or organisation review, as applicable.

- Part 5 Appendices
- Part 6 Continuing airworthiness management procedures
- Part 7 Airworthiness review procedures (if applicable)

# AMC M.A.704(a)(1) Continuing airworthiness management exposition

ED Decision 2020/002/R

- Part 0 'General organisation' of the continuing airworthiness management exposition should include a corporate commitment by the CAMO, signed by the accountable manager, confirming that the continuing airworthiness management exposition and any associated manuals define the organisation's compliance with <u>Part-M</u> and, as applicable, with Part-ML and will be complied with at all times.
- 2. The accountable manager's exposition statement should embrace the intent of the following paragraph, and in fact this statement may be used without amendment. Any amendment to the statement should not alter its intent:

'This exposition defines the organisation and procedures upon which the competent authority's\* CAMO approval is based.

These procedures are approved by the undersigned and should be complied with, as applicable, in order to ensure that all continuing airworthiness tasks are carried out on time to an approved standard.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the competent authority\* will approve this organisation whilst the competent authority\* is satisfied that the procedures are followed and the work standard is maintained. It is understood that the competent authority\* reserves the right to suspend, limit or revoke the CAMO approval or the air operator certificate, as applicable, if the competent authority\* has evidence that the procedures are not followed and standards not upheld.

Signed
Dated
Accountable manager and (quote position)
For and on behalf of (auote organisation's name) '



Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

- \*Where 'competent authority' is stated, please insert the actual name of the approving competent authority organisation or administration delivering the CAMO approval or the air operator certificate.'
- 3. Whenever the accountable manager is changed, it is important to ensure that the new accountable manager signs the paragraph 2 statement at the earliest opportunity as part of the acceptance by the approving competent authority. Failure to carry out this action invalidates the CAMO approval or the air operator certificate.

## M.A.705 Facilities

Regulation (EU) No 1321/2014

The continuing airworthiness management organisation shall provide suitable office accommodation at appropriate locations for the personnel specified in point M.A.706.

# **AMC M.A.705 Facilities**

ED Decision 2015/029/R

Office accommodation should be such that the incumbents, whether they be continuing airworthiness management, planning, technical records or quality staff, can carry out their designated tasks in a manner that contributes to good standards. In the smaller CAMO, the competent authority may agree to these tasks being conducted from one office subject to being satisfied that there is sufficient space and that each task can be carried out without undue disturbance. Office accommodation should also include an adequate technical library and room for document consultation.

## M.A.706 Personnel requirements

Regulation (EU) 2020/270

(a) The organisation shall appoint an accountable manager, who has corporate authority for ensuring that all continuing airworthiness management activities can be financed and carried out in accordance with this Annex (Part-M) and Annex Vb (Part-ML), as applicable.

Regulation (EU) 2015/1536

(b) For licenced air carriers in accordance with Regulation (EC) No 1008/2008 the accountable manager referred to in point (a) shall be the person who also has corporate authority for ensuring that all the operations of the operator can be financed and carried out to the standard required for the issue of an air operator's certificate.

Regulation (EU) No 2020/270

(c) A person or group of persons shall be nominated with the responsibility of ensuring that the organisation always complies with the applicable continuing airworthiness management, airworthiness review and permit to fly requirements of this Annex (Part-M) and Annex Vb (Part-ML). Such person(s) shall be ultimately responsible to the accountable manager.

Regulation (EU) 2015/1536

(d) For licenced air carriers in accordance with Regulation (EC) No 1008/2008, the accountable manager shall designate a nominated post holder. This person shall be responsible for the management and supervision of continuing airworthiness activities, pursuant to point (c).

Regulation (EU) No 1321/2014

(e) The nominated post holder referred to in point (d) shall not be employed by a <a href="Part-145">Part-145</a> approved organisation under contract to the operator, unless specifically agreed by the competent authority.



Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

Regulation (EU) No 1321/2014

(f) The organisation shall have sufficient appropriately qualified staff for the expected work.

Regulation (EU) No 1321/2014

(g) All point (c) and (d) persons shall be able to show relevant knowledge, background and appropriate experience related to aircraft continuing airworthiness.

Regulation (EU) No 1321/2014

(h) The qualification of all personnel involved in continuing airworthiness management shall be recorded.

Regulation (EU) 2020/270

(i) For organisations extending airworthiness review certificates in accordance with points M.A.711(a)(4) and M.A.901 of this Annex (Part-M) or point ML.A.901(c) of Annex Vb (Part-ML) as applicable, the organisation shall nominate persons authorised to do so, subject to approval by the competent authority.

Regulation (EU) No 1321/2014

(j) The organisation shall define and keep updated in the continuing airworthiness management exposition the title(s) and name(s) of person(s) referred to in points M.A.706(a), M.A.706(c), M.A.706(d) and M.A.706(i).

Regulation (EU) 2015/1536

(k) For complex motor-powered aircraft and for aircraft used by licenced air carriers in accordance with Regulation (EC) No 1008/2008, the organisation shall establish and control the competence of personnel involved in the continuing airworthiness management, airworthiness review and/or quality audits in accordance with a procedure and to a standard agreed by the competent authority.

# AMC M.A.706 Personnel requirements

ED Decision 2015/029/R

- 1. The person or group of persons should represent the continuing airworthiness management structure of the organisation and be responsible for all continuing airworthiness functions. Dependent on the size of the operation and the organisational set-up, the continuing airworthiness functions may be divided under individual managers or combined in nearly any number of ways. However, if a quality system is in place it should be independent from the other functions.
- 2. The actual number of persons to be employed and their necessary qualifications is dependent upon the tasks to be performed and thus dependent on the size and complexity of the organisation (general aviation aircraft, corporate aircraft, number of aircraft and the aircraft types, complexity of the aircraft and their age and for commercial air transport, route network, line or charter, ETOPS) and the amount and complexity of maintenance contracting. Consequently, the number of persons needed, and their qualifications may differ greatly from one organisation to another and a simple formula covering the whole range of possibilities is not feasible.
- 3. To enable the competent authority to accept the number of persons and their qualifications, an organisation should make an analysis of the tasks to be performed, the way in which it intends to divide and/or combine these tasks, indicate how it intends to assign responsibilities and establish the number of man/hours and the qualifications needed to perform the tasks. With



Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

significant changes in the aspects relevant to the number and qualifications of persons needed, this analysis should be updated.

- 4. Nominated person or group of persons should have:
  - 4.1. practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - 4.2. a comprehensive knowledge of:
    - (a) relevant parts of operational requirements and procedures;
    - (b) the AOC holder's operations specifications when applicable;
    - (c) the need for, and content of, the relevant parts of the AOC holder's operations manual when applicable;
  - 4.3. knowledge of quality systems;
  - 4.4. five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position;
  - 4.5. a relevant engineering degree or an aircraft maintenance technician qualification with additional education acceptable to the competent authority. 'relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components;
    - The above recommendation may be replaced by 5 years of experience additional to those already recommended by paragraph 4.4 above. These 5 years should cover an appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks;
  - 4.6. thorough knowledge with the organisation's continuing airworthiness management exposition;
  - 4.7. knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to <a href="Part-66 Appendix">Part-66 Appendix</a> <a href="III">IIII</a> Level 1 General Familiarisation and could be imparted by a <a href="Part-147">Part-147</a> organisation, by the manufacturer, or by any other organisation accepted by the competent authority.
    - 'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.
    - For all balloons and any other aircraft of 2 730 kg MTOM and below the formalised training courses may be replaced by demonstration of knowledge. This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority. This assessment should be recorded.
  - 4.8. knowledge of maintenance methods.
  - 4.9. knowledge of applicable regulations.

# AMC M.A.706(a) Personnel requirements

ED Decision 2015/029/R

Accountable manager is normally intended to mean the chief executive officer of the CAMO, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be knowledgeable on technical matters. When the accountable manager is not the chief executive officer, the competent authority will need to be assured that such

Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

an accountable manager has direct access to the chief executive officer and has a sufficiency of continuing airworthiness funding allocation.

# AMC M.A.706(e) Personnel requirements

ED Decision 2015/029/R

- 1. The competent authority of the operator should only accept that the nominated post holder be employed by the organisation approved under <a href="Part-145">Part-145</a> when it is manifest that he/she is the only available competent person in a position to exercise this function, within a practical working distance from the operator's offices.
- 2. This paragraph only applies to contracted maintenance and therefore does not affect situations where the organisation approved under <a href="Part-145">Part-145</a> and the operator are the same organisation.

# AMC M.A.706(f) Personnel requirements

ED Decision 2020/002/R

Additional training in fuel tank safety as well as associated inspection standards and maintenance procedures should be required of CAMO technical personnel, especially the staff involved with the management of CDCCL, Service Bulletin assessment, work planning and maintenance programme management. EASA guidance is provided for training to CAMO personnel in <a href="Appendix XII to AMC M.A.706(f)">Appendix XII to AMC M.A.706(f)</a> and AMC1 M.B.102(c).

# AMC M.A.706(i) Personnel requirements

ED Decision 2020/002/R

The approval by the competent authority of the exposition, containing in M.A.704(a)3 the list of M.A.706(i) personnel, constitutes their formal acceptance by the competent authority and also their formal authorisation by the organisation.

Airworthiness review staff are automatically recognised as persons with authority to extend an airworthiness review certificate in accordance with  $\underline{\text{M.A.711(a)4}}$  and  $\underline{\text{M.A.901(f)}}$  or  $\underline{\text{ML.A.901(c)}}$  as applicable.

# AMC M.A.706(k) Personnel requirements

ED Decision 2015/029/R

Adequate initial and recurrent training should be provided and recorded to ensure continued competence.



## M.A.707 Airworthiness review staff

Regulation (EU) 2020/270

- (a) To be approved to carry out airworthiness reviews and, if applicable, to issue permits to fly, an approved continuing airworthiness management organisation shall have appropriate airworthiness review staff to issue airworthiness review certificates or recommendations referred to in Section A, Subpart I of Annex I (Part-M) or in Section A, Subpart I of Annex Vb (Part-ML) and, if applicable, to issue a permit to fly in accordance with point M.A.711(c):
  - For aircraft used by licenced air carriers in accordance with Regulation (EC) No 1008/2008, and aircraft above 2 730 kg MTOM, except balloons, these staff shall have acquired:
    - (a) at least 5 years' experience in continuing airworthiness, and;
    - (b) an appropriate license in compliance with Annex III (Part-66) or an aeronautical degree or a national equivalent, and;
    - (c) formal aeronautical maintenance training, and;
    - (d) a position within the approved organisation with appropriate responsibilities.
    - (e) Notwithstanding points (a) to (d), the requirement laid down in point M.A.707(a)1(b) may be replaced by 5 years of experience in continuing airworthiness additional to those already required by point M.A.707(a)1(a).
  - 2. For aircraft not used by licenced air carriers in accordance with Regulation (EC) No 1008/2008 of 2 730 kg MTOM and below, and balloons, these staff shall have acquired:
    - (a) at least 3 years' experience in continuing airworthiness, and;
    - (b) an appropriate license in compliance with <u>Annex III (Part-66)</u> or an aeronautical degree or a national equivalent, and;
    - (c) appropriate aeronautical maintenance training, and;
    - (d) a position within the approved organisation with appropriate responsibilities;
    - (e) Notwithstanding points (a) to (d), the requirement laid down in point M.A.707(a)2(b) may be replaced by 4 years of experience in continuing airworthiness additional to those already required by point M.A.707(a)2(a).

Regulation (EU) 2015/1088

(b) Airworthiness review staff nominated by the approved continuing airworthiness organisation can only be issued an authorisation by the approved continuing airworthiness organisation when formally accepted by the competent authority after satisfactory completion of an airworthiness review under the supervision of the competent authority or under the supervision of the organisation's airworthiness review staff in accordance with a procedure approved by the competent authority.

Regulation (EU) No 1321/2014

(c) The organisation shall ensure that aircraft airworthiness review staff can demonstrate appropriate recent continuing airworthiness management experience.

Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

Regulation (EU) No 1321/2014

(d) Airworthiness review staff shall be identified by listing each person in the continuing airworthiness management exposition together with their airworthiness review authorisation reference.

Regulation (EU) No 1321/2014

(e) The organisation shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training and a copy of the authorisation. This record shall be retained until two years after the airworthiness review staff have left the organisation.

# AMC M.A.707(a) Airworthiness review staff

ED Decision 2020/002/R

- 1. Airworthiness review staff are only required if the CAMO wants to be granted M.A.711(b) airworthiness review and, if applicable, M.A.711(c) permit to fly privileges.
- 2. 'experience in continuing airworthiness' means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks.
- 3. A person qualified to the <u>AMC M.A.706</u> subparagraph 4.5 should be considered as holding the equivalent to an aeronautical degree.
- 4. An appropriate licence in compliance with Annex III (Part-66) is any one of the following:
  - a category B1 licence in the subcategory of the aircraft reviewed, or
  - a category B2 or C licence, or
  - in the case of piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below, a category B3 licence,
  - in the case of sailplanes, powered sailplanes, ELA1 aeroplanes, balloons and airships, a category L licence in the appropriate subcategory.

It is not necessary to satisfy the experience requirements of Annex III (Part-66) at the time of the review.

- 5. To hold a position with appropriate responsibilities means the airworthiness review staff should have a position in the organisation independent from the airworthiness management process or with overall authority on the airworthiness management process of complete aircraft.
  - Independence from the airworthiness management process may be achieved, among other ways, by:
  - Being authorised to perform airworthiness reviews only on aircraft for which the person has not participated in their management. For example, performing airworthiness reviews on a specific model line, while being involved in the airworthiness management of a different model line.
  - M.A. Subpart G organisations with Part-145/M.A. Subpart F/Part-CAO approval, may nominate maintenance personnel from their Part-145/M.A. Subpart F/Part-CAO organisation as airworthiness review staff, as long as they are not involved in the airworthiness management of the aircraft. These personnel should not have been involved in the release to service of that particular aircraft (other than maintenance tasks).

performed during the physical survey of the aircraft or performed as a result of findings discovered during such physical survey) to avoid possible conflict of interests.

 Nominating as airworthiness review staff personnel from the quality department of the CAMO.

Overall authority on the airworthiness management process of complete aircraft may be achieved, among other ways, by:

- Nominating as airworthiness review staff the accountable manager or the nominated postholder.
- Being authorised to perform airworthiness reviews only on those particular aircraft for which the person is responsible for the complete continuing airworthiness management process.
- In the case of one-man organisations, this person has always overall authority. This means that this person can be nominated as airworthiness review staff.

# AMC M.A.707(a)(1) Airworthiness review staff

ED Decision 2016/011/R

For all aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 and for any other aircraft, other than balloons, above 2 730 kg MTOM, formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

- Relevant parts of initial and continuing airworthiness regulations.
- Relevant parts of operational requirements and procedures, if applicable.
- The organisation's continuing airworthiness management exposition.
- Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to <a href="Part-66 Appendix III">Part-66 Appendix III</a> Level 1 General Familiarisation and could be imparted by a <a href="Part-147">Part-147</a> organisation, by the manufacturer, or by any other organisation accepted by the competent authority.
  - 'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval
- Maintenance methods.

# AMC M.A.707(a)(2) Airworthiness review staff

ED Decision 2016/011/R

For all balloons and any other aircraft of 2 730 Kg MTOM and below, not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008:

- 1. 'experience in continuing airworthiness' can be full-time or part-time, either as professional or on a voluntary basis.
- 2. Appropriate aeronautical maintenance training means demonstrated knowledge of the following subjects:
  - Relevant parts of initial and continuing airworthiness regulations.
  - Relevant parts of operational requirements and procedures, if applicable.

- The organisation's continuing airworthiness management exposition.
- Knowledge of a relevant sample of the type(s) of aircraft gained through training and/or work experience. Such knowledge should be at least at a level equivalent to <a href="Part-66">Part-66</a>
   Appendix III Level 1 General Familiarisation and could be imparted by a <a href="Part-147">Part-147</a>
   organisation, by the manufacturer, or by any other organisation accepted by the competent authority.
- 'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.
- Maintenance methods.

This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority or by other airworthiness review staff already authorised within the organisation in accordance with approved procedures. This assessment should be recorded.

# AMC M.A.707(b) Airworthiness review staff

ED Decision 2015/029/R

The formal acceptance by the competent authority of the airworthiness review staff is granted through the corresponding <u>EASA Form 4</u>.

If the airworthiness review is performed under the supervision of existing airworthiness review staff, evidence should be provided to the competent authority together with <u>EASA Form 4</u>. If satisfied, the competent authority will issue the formal acceptance through <u>EASA Form 4</u>.

Once the airworthiness review staff has been accepted by the competent authority, the inclusion of their name in the exposition (refer to  $\underline{\text{M.A.704(a)5}}$ ) constitutes the formal authorisation by the organisation.

# AMC M.A.707(c) Airworthiness review staff

ED Decision 2015/029/R

In order to keep the validity of the airworthiness review staff authorisation, the airworthiness review staff should have either:

- been involved in continuing airworthiness management activities for at least six months in every two year period, or
- conducted at least one airworthiness review in the last twelve month period.

In order to restore the validity of the authorisation, the airworthiness review staff should conduct at a satisfactory level an airworthiness review under the supervision of the competent authority or, if accepted by the competent authority, under the supervision of another currently valid authorised airworthiness review staff of the concerned continuing airworthiness management organisation in accordance with an approved procedure.

# AMC M.A.707(e) Airworthiness review staff

ED Decision 2015/029/R

The minimum content of the airworthiness review staff record should be:

- Name,
- Date of Birth,



- Basic Education,
- Experience,
- Aeronautical Degree and/or <u>Part-66</u> qualification and/or nationally-recognised maintenance personnel qualification,
- Initial Training received,
- Type of Training received,
- Continuation Training received,
- Experience in continuing airworthiness and within the organisation,
- Responsibilities of current role in the organisation,
- Copy of the authorisation.

## M.A.708 Continuing airworthiness management

Regulation (EU) 2020/270

- (a) The organisation shall ensure that all continuing airworthiness management is carried out in accordance with Section A, Subpart C of this Annex (Part-M), and Section A, Subpart C of Annex Vb (Part-ML), as applicable.
- (b) For every aircraft managed, the approved continuing airworthiness management organisation shall:
  - 1. ensure that an aircraft maintenance programme including any applicable reliability programme, as required by point M.A.302 of this Annex (Part-M) or ML.A.302 of Annex Vb (Part-ML), as applicable, is developed and controlled,
  - for aircraft not used by air carriers licensed in accordance with Regulation (EC)
    No 1008/2008, provide a copy of the aircraft maintenance programme to the owner or
    operator responsible in accordance with point M.A.201 of this Annex (Part-M) or
    ML.A.201 of Annex Vb (Part-ML), as applicable,
  - 3. manage the approval of modification and repairs,
  - 4. ensure that all maintenance is carried out in accordance with the approved maintenance programme and released in accordance with Section A, Subpart H of this Annex (Part-M) or Section A, Subpart H of Annex Vb (Part-ML), as applicable,
  - 5. ensure that all applicable airworthiness directives and operational directives with a continuing airworthiness impact, are applied,
  - 6. ensure that all defects discovered during scheduled maintenance or reported are corrected by an appropriately approved maintenance organisation,
  - 7. ensure that the aircraft is taken to an appropriately approved maintenance organisation whenever necessary,
  - 8. coordinate scheduled maintenance, the application of airworthiness directives, the replacement of service life limited parts, and component inspection to ensure the work is carried out properly,
  - 9. manage and archive all continuing airworthiness records and/or operator's technical log.
  - 10. ensure that the mass and balance statement reflects the current status of the aircraft.



- (c) In the case of complex motor-powered aircraft or aircraft used for CAT, or aircraft used for commercial specialised operations or commercial ATO or commercial DTO operations, when the CAMO is not appropriately approved in accordance with Annex II (Part-145) or Subpart F of this Annex (Part-M) or Annex Vd (Part-CAO), the organisation shall, in consultation with the operator, establish a written maintenance contract with an organisation approved in accordance with Annex II (Part-145) or Subpart F of this Annex (Part-M) or Annex Vd (Part-CAO) or with another operator, detailing the functions specified under points M.A.301(b), M.A.301(c), M.A.301(f) and M.A.301(g) of this Annex (Part-M), or points ML.A.301(b) to (e) of Annex Vb (Part-ML), ensuring that all maintenance is ultimately carried out by a maintenance organisation approved in accordance with Annex II (Part-145) or Subpart F of this Annex (Part-M) or Annex Vd (Part-CAO) and defining the support of the quality functions referred to in point M.A.712(b) of this Annex (Part-M).
- (d) Notwithstanding point (c), the contract may be in the form of individual work orders addressed to the maintenance organisation approved in accordance with Annex II (Part-145) or Subpart F of this Annex (Part-M) or Annex Vd (Part-CAO) in the case of:
  - 1. an aircraft requiring unscheduled line maintenance;
  - 2. component maintenance, including engine maintenance.

# GM M.A.708 Continuing airworthiness management

ED Decision 2016/011/R

The CAMO should have adequate knowledge of the design status (type specification, customer options, airworthiness directives (ADs), airworthiness limitations contained in the aircraft instructions for continuing airworthiness, modifications, major repairs, operational equipment) and of the required and performed maintenance. The status of aircraft design and maintenance should be adequately documented to support the performance of the quality system.

For CS-25 aeroplanes, adequate knowledge of the airworthiness limitations should cover those contained in CS-25 Book 1, Appendix H, paragraph H25.4 and fuel tank system airworthiness limitations including critical design configuration control limitations (CDCCL).

# AMC M.A.708(b)3 Continuing Airworthiness Management

ED Decision 2015/029/R

When managing the approval of modifications or repairs the organisation should ensure that Critical Design Configuration Control Limitations are taken into account.

# GM M.A.708(b)(4) Continuing airworthiness management

ED Decision 2016/011/R

This requirement means that the CAMO is responsible for determining what maintenance is required, when it has to be performed, by whom and to what standard in order to ensure the continued airworthiness of the aircraft.

# AMC1 M.A.708(c) Continuing airworthiness management

ED Decision 2020/002/R

 In case of complex motor-powered aircraft, aircraft used for CAT operations, aircraft used for commercial specialised operations and aircraft used by commercial ATO, the provisions of M.A.201 establish that a CAMO is required. This CAMO is in charge of the continuing

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- airworthiness management and this includes the tasks specified in M.A.301 points (2), (3), (5) and (6). If the CAMO does not hold the appropriate maintenance organisation approval, then the CAMO should conclude a contract with the appropriate organisation(s).
- 2. The CAMO bears the responsibility for the airworthy condition of the aircraft for which it performs the continuing airworthiness management. Thus, it should be satisfied before the intended flight that all required maintenance has been properly carried out.
- 3. The CAMO should agree with the operator on the process to select a maintenance organisation before concluding any contract with a maintenance organisation.
- 4. The fact that the CAMO has contracted a maintenance organisation approved under <u>Subpart F</u> or <u>Part-145</u> should not prevent it from checking at the maintenance facilities on any aspect of the contracted work to fulfil its responsibility for the airworthiness of the aircraft.
- 5. The contract between the CAMO and the maintenance organisation(s) should specify in detail the responsibilities and the work to be performed by each party.
- 6. Both the specification of work and the assignment of responsibilities should be clear, unambiguous and sufficiently detailed to ensure that no misunderstanding arises between the parties concerned that could result in a situation where work that has an effect on the airworthiness or serviceability of aircraft is not or will not be properly performed.
- 7. Special attention should be paid to procedures and responsibilities to ensure that all maintenance work is performed, service bulletins are analysed and decisions are taken on their accomplishment, airworthiness directives are accomplished on time and that all work, including non-mandatory modifications, is carried out to approved data and to the latest standards.
- 8. Appendix XI to this AMC gives further details on the subject.

# AMC2 M.A.708(c) Continuing airworthiness management

ED Decision 2016/011/R

## MAINTENANCE CONTRACT WITH ANOTHER CAMO/OPERATOR

- 1. The purpose of M.A.708(c) is to ensure that all maintenance is carried out by an appropriately approved maintenance organisation. It is possible to contract another operator/CAMO (secondary operator/CAMO) that does not hold a maintenance organisation approval when it proves that such a contract is in the interest of the CAMO by simplifying the management of its maintenance, and the CAMO keeps an appropriate control of it. In this case the continuing airworthiness management exposition should include appropriate procedures to ensure that all maintenance is ultimately carried out on time by approved maintenance organisations in accordance with the CAMO's data. In particular, the quality system procedures should place great emphasis on monitoring compliance with the above. The list of approved maintenance organisations, or a reference to this list, should be included in the CAMO's continuing airworthiness management exposition.
- 2. This contract should not preclude the CAMO from ensuring that all maintenance is performed by appropriately approved organisations which comply with the <u>M.A.201</u> continuing airworthiness responsibility requirements. Typical examples of such arrangements are the following:
  - Component maintenance:
    - The CAMO may find it more appropriate to have a primary contractor (the secondary operator/CAMO) dispatching the components to appropriately approved organisations

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rather than sending themselves different types of components to various maintenance organisations approved under <u>Part-145</u>. The benefit for the CAMO is that the management of maintenance is simplified by having a single point of contact for component maintenance. The CAMO remains responsible for ensuring that all maintenance is performed by maintenance organisations approved under <u>Part-145</u> and in accordance with the approved standards.

– Aircraft, engine and component maintenance:

The CAMO may wish to have a maintenance contract with a secondary operator/CAMO not approved under Part-145 for the same type of aircraft. A typical case is that of a dry-leased aeroplane between operators where the parties, for consistency or continuity reasons (especially for short-term lease agreements), find it appropriate to keep the aeroplane under the current maintenance arrangement. Where this arrangement involves various Part-145 approved contractors, it might be more manageable for the lessee CAMO to have a single maintenance contract with the lessor operator/CAMO. Whatever type of acceptable maintenance contract is concluded, the CAMO is required to exercise the same level of control on contracted maintenance, particularly through the M.A.706(c) continuing airworthiness management group of persons and quality system as referred to in M.A.712.

# GM M.A.708(c) Continuing airworthiness management

ED Decision 2016/011/R

For line maintenance, the actual layout of the IATA Standard Ground Handling Agreement may be used as a basis, but this does not preclude the CAMO from ensuring that the content of the contract is acceptable and especially that the contract allows the CAMO to properly exercise its maintenance responsibility. Those parts of the contract that have no effect on the technical or operational aspects of airworthiness are outside the scope of this paragraph.

# AMC M.A.708(d) Continuing airworthiness management

D Decision 2016/011/R

The intent of this paragraph is that maintenance contracts are not necessary when the continuing airworthiness management exposition specifies that the relevant maintenance activity may be ordered through one-time work orders. This includes unscheduled line maintenance and may also include component maintenance up to engines, as long as the maintenance is manageable through work orders, both in terms of volume and complexity. It should be noted that this paragraph implies that even where base maintenance is ordered on a case-by-case basis, there should be a written maintenance contract.

## M.A.709 Documentation

Regulation (EU) 2020/270

(a) The approved continuing airworthiness management organisation shall hold and use applicable current maintenance data in accordance with point M.A.401 of this Annex (Part-M) or point ML.A.401 of Annex Vb (Part-ML), as applicable, for the performance of continuing airworthiness tasks referred to in point M.A.708 of this Annex (Part-M). That data may be provided by the owner or the operator, subject to an appropriate contract being established with such an owner or operator. In such case, the continuing airworthiness management organisation only needs



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to keep such data for the duration of the contract, except when required by point  $\underline{\text{M.A.714}}$  of this Annex (Part-M).

(b) For aircraft not used by licenced air carriers in accordance with Regulation (EC) No 1008/2008, the approved continuing airworthiness management organisation may develop 'baseline' or 'generic' maintenance programmes, or both, in order to allow for the initial approval or the extension of the scope of an approval, without having the contracts referred to in Appendix I to this Annex (Part-M) or Appendix I to Annex Vb (Part-ML), as applicable. Those 'baseline' and 'generic' maintenance programmes however do not preclude the need to establish an adequate Aircraft Maintenance Programme in compliance with point M.A.302 of this Annex (Part-M) or ML.A.302 of Annex Vb (Part-ML), as applicable, in due time before exercising the privileges referred to in point M.A.711 of this Annex (Part-M).

## **AMC M.A.709 Documentation**

ED Decision 2016/011/R

When using maintenance data provided by the customer, the CAMO is responsible for ensuring that this data is current. As a consequence, it should establish appropriate procedures or provisions in the contract with the customer.

The sentence '..., except when required by point M.A.714', means, in particular, the need to keep a copy of the customer data which was used to perform continuing airworthiness activities during the contract period.

'Baseline' maintenance programme: it is a maintenance programme developed for a particular aircraft type following, where applicable, the maintenance review board (MRB) report, the type certificate holder's maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling.

'Generic' maintenance programme: it is a maintenance programme developed to cover a group of similar types of aircraft. These programmes should be based on the same type of instructions as the baseline maintenance programme. Examples of 'generic' maintenance programmes could be Cessna 100 Series (covering Cessna 150, 172, 177, etc.).

'Baseline' and 'generic' maintenance programmes are not applicable to a particular aircraft registration mark, but to an aircraft type or group of types, and should be available to the competent authority prior to the initial approval and prior to the extension of the scope of an existing organisation approval. The intent is that the competent authority is aware of the scope and complexity of tasks that will be managed before granting an organisation approval or change of approval.

After this initial approval, when an owner/operator is contracted, the baseline or generic maintenance programme, as applicable, may be used to establish the M.A.302 aircraft maintenance programme, incorporating the additional maintenance tasks and indicating those which are not applicable to a particular aircraft registration mark. This may be achieved by adding an Annex to the baseline/generic maintenance programme for each aircraft registration, specifying which tasks are added and which are not applicable. This will result in an aircraft maintenance programme specific for each customer.

However, this does not mean that this adaptation must be performed for each contracted aircraft registration. The reason is that the customer may already have an approved aircraft maintenance programme, which in that case should be used by the continuing airworthiness management organisation to manage the continuing airworthiness of such aircraft.

Continuing airworthiness management organisations may seek authorisation for indirect approval in order to amend the aircraft maintenance programme mentioned above in accordance with

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M.A.302(c). The indirect approval procedure should include provisions to notify to the competent authority that an aircraft maintenance programme specific for a customer has been created. The reason is that, according to M.A.704(a)9, for aircraft not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, the Continuing Airworthiness Management Exposition (CAME) only needs to include the reference to the baseline/generic maintenance programme.

## **GM M.A.709 Documentation**

ED Decision 2015/029/R

Paragraph  $\underline{M.A.709(a)}$  refers to continuing airworthiness tasks referred to in  $\underline{M.A.708}$ . As a consequence, this covers continuing airworthiness management tasks but not airworthiness reviews.

Airworthiness review requirements are established in  $\underline{M.A.710}$  and the requirements for the corresponding record retention are contained in  $\underline{M.A.714}$ .

## M.A.710 Airworthiness review

Regulation (EU) 2020/270

When the organisation approved in accordance with point  $\underline{M.A.711(b)}$  of this Annex (Part-M) performs airworthiness reviews, they shall be performed in accordance with point  $\underline{M.A.901}$  of this Annex (Part-M) or point  $\underline{M.A.903}$  of Annex Vb (Part-ML), as applicable.

## **GM M.A.710 Airworthiness review**

ED Decision 2020/002/R

## Responsibilities of airworthiness review staff:

The following is a summary of the requirements contained in <u>M.A.710</u> as well as the associated AMCs and Appendices, in relation to the responsibilities of the airworthiness review staff:

- Airworthiness review staff are responsible for performing both the documental and the physical survey.
- Procedures must be established by the CAMO in order to perform the airworthiness review, including the depth of samplings (refer to <u>Appendix V to AMC1 M.A.704</u>, paragraphs 4.2 and 4.3).
- Procedures must make very clear that the final word about the depth of the inspections (both documental and physical) belongs to the airworthiness review staff, who can go beyond the depth contained in the CAME if they find it necessary. At the end, it is the responsibility of the airworthiness review staff to be satisfied that the aircraft complies with <a href="Part-M">Part-M</a> or Part-ML, as applicable, and is airworthy, and the organisation must ensure that no pressure or restrictions are imposed on the airworthiness review staff when performing their duty.
- A compliance report must be produced by the airworthiness review staff, detailing all items checked and the outcome of the review.
- Airworthiness review staff are responsible for the items checked during the airworthiness review. However, they do not take over the responsibilities of the CAMO, Part-145, DOA, POA or any other organisations, not being responsible for problems not detected during the airworthiness review or for the possibility that the approved or declared maintenance programme may not include certain recommendations from the Design Approval Holder. Obviously, if the airworthiness review staff are not independent of the airworthiness management process and were nominated on the basis of the option of having overall authority



on such a process, they will be responsible for the full continuing airworthiness of such aircraft. Nevertheless, this responsibility will be a consequence of their position related to  $\underline{M.A.706}$  and not of their position as airworthiness review staff ( $\underline{M.A.707}$ ).

The issuance of the airworthiness review certificate (ARC) by the airworthiness review staff only certifies that the aircraft is considered airworthy in relation to the scope of the airworthiness review performed and the fact that the airworthiness review staff are not aware of instances of non-compliance which endanger flight safety. Furthermore, it only certifies that the aircraft is considered airworthy at the time of the review.

It is the responsibility of the owner or contracted CAMO to ensure that the aircraft is fully airworthy at any time.

## M.A.711 Privileges of the organisation

Regulation (EU) 2020/270

- (a) A continuing airworthiness management organisation approved in accordance with <u>Section A, Subpart G</u> of this <u>Annex (Part-M)</u> may:
  - manage the continuing airworthiness of aircraft, except those used by licenced air carriers in accordance with Regulation (EC) No 1008/2008, as listed on the approval certificate;
  - 2. manage the continuing airworthiness of aircraft used by licenced air carriers in accordance with Regulation (EC) No 1008/2008, when listed both on its approval certificate and on its Air Operator Certificate (AOC);
  - 3. arrange to carry out limited continuing airworthiness tasks with any contracted organisation, working under its quality system, as listed on the approval certificate;
  - 4. extend, under the conditions set out in point M.A.901(f) of this Annex (Part-M) or ML.A.901(c) of Annex Vb (Part-ML), as applicable, an airworthiness review certificate that has been issued by the competent authority or by another organisation or person, as applicable;
  - 5. Approve the AMP, in accordance with point (b)(2) of point ML.A.302, for aircraft managed in accordance with Annex Vb (Part-ML).
- (b) An approved continuing airworthiness management organisation registered in one of the Member States may, additionally, be approved to carry out airworthiness reviews referred to in point M.A.710 and:
  - 1. issue the related airworthiness review certificate and extend it in due time under the conditions set out in points M.A.901(c)(2) or M.A.901(e)(2) of this Annex (Part-M) or point ML.A.901(c) of Annex Vb (Part-ML), as applicable; and,
  - 2. issue a recommendation for the airworthiness review to the competent authority of the Member State of registry.
- (c) A continuing airworthiness management organisation whose approval includes the privileges referred to in point M.A.711(b) may additionally be approved to issue a permit to fly in accordance with point 21.A.711(d) of Annex I (Part-21) to Regulation (EU) No 748/2012 for the particular aircraft for which the organisation is approved to issue the airworthiness review certificate, when the continuing airworthiness management organisation is attesting conformity with approved flight conditions, subject to an adequate approved procedure in the exposition referred to in point M.A.704.

# AMC M.A.711(a)(3) Privileges of the organisation

ED Decision 2016/011/R

#### SUBCONTRACTING OF CONTINUING AIRWORTHINESS TASKS

- 1. The CAMO may subcontract certain continuing airworthiness management tasks to qualified persons or organisations. The subcontracted person or organisation performs the continuing airworthiness management tasks as an integral part of the CAMO's continuing airworthiness management system, irrespective of any other approval held by the subcontracted person or organisation (including CAMO or Part-145 approval).
- 2. The CAMO remains accountable for the satisfactory completion of the continuing airworthiness management tasks irrespective of any contract that may be established.
- 3. In order to fulfil this responsibility, the CAMO should be satisfied that the actions taken by the subcontracted person or organisation meet the standards required by <u>Subpart G</u>. Therefore, the CAMO management of such activities should be accomplished:
  - (a) by active control through direct involvement, and/or
  - (b) by endorsing the recommendations made by the subcontracted person or organisation.
- 4. In order to retain ultimate responsibility, the CAMO should limit subcontracted tasks to the activities specified below:
  - (a) airworthiness directive analysis and planning;
  - (b) service bulletin analysis;
  - (c) planning of maintenance;
  - (d) reliability monitoring, engine health monitoring;
  - (e) maintenance programme development and amendments;
  - (f) any other activities, which do not limit the CAMO responsibilities, as agreed by the competent authority.
- 5. The CAMO's controls associated with subcontracted continuing airworthiness management tasks should be reflected in the associated contract and be in accordance with the CAMO policy and procedures defined in the continuing airworthiness management exposition. When such tasks are subcontracted, the continuing airworthiness management system is considered to be extended to the subcontracted persons or organisations.
- 6. With the exception of engines and auxiliary power units, contracts would normally be limited to one organisation per aircraft type for any combination of the activities described in Appendix II. Where contracts are made with more than one organisation, the CAMO should demonstrate that adequate coordination controls are in place and that the individuals' responsibilities are clearly defined in the related contracts.
- 7. Contracts should not authorise the subcontracted organisation to subcontract to other organisations elements of the continuing airworthiness management tasks.
- 8. The competent authority should exercise oversight of the subcontracted activities through the CAMO approval. The contracts should be acceptable to the competent authority. The CAMO should only subcontract to organisations which are specified by the competent authority on EASA Form 14.

- 9. The subcontracted organisation should agree to notify the CAMO of any changes affecting the contract as soon as practical. The CAMO should then inform its competent authority. Failure to do so may invalidate the competent authority's acceptance of the contract.
- 10. <u>Appendix II to AMC M.A.711(a)(3)</u> provides information on the subcontracting of continuing airworthiness management tasks.

# AMC M.A.711(b) Privileges of the organisation

ED Decision 2015/029/R

An organisation may be approved for the privileges of M.A.711(a) only, without the privilege to carry out airworthiness reviews. This can be contracted to another appropriately approved organisation. In such a case, it is not mandatory that the contracted organisation is linked to an AOC holder, being possible to contract an appropriately approved independent continuing airworthiness management organisation which is approved for the same aircraft type.

In order to be approved for the privileges of  $\underline{\text{M.A.711(b)}}$  for a particular aircraft type, it is necessary to be approved for the privileges of  $\underline{\text{M.A.711(a)}}$  for that aircraft type. As a consequence, the normal situation in this case is that the organisation will be performing continuing airworthiness management tasks and performing airworthiness reviews on every aircraft type contained in the approval certificate.

Nevertheless, this does not necessarily mean that the organisation needs to be currently managing an aircraft type in order to be able to perform airworthiness reviews on that aircraft type. The organisation may be performing only airworthiness reviews on an aircraft type without having any customer under contract for that type.

Furthermore, this situation should not necessarily lead to the removal of the aircraft type from the organisation approval. As a matter of fact, since in most cases the airworthiness review staff are not involved in continuing airworthiness management activities, it cannot be argued that these airworthiness review staff are going to lose their skills just because the organisation is not managing a particular aircraft type. The important issue in relation to maintaining a particular aircraft type in the organisation approval is whether the organisation continuously fulfils all the <u>Subpart G</u> requirements (facilities, documentation, qualified personnel, quality system, etc.) required for initial approval.

# AMC M.A.711(c) Privileges of the organisation

ED Decision 2020/002/R

The sentence 'for the particular aircraft for which the organisation is approved to issue the airworthiness review certificate' contained in  $\underline{\mathsf{M.A.711}(c)}$  means that:

- For aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, and for aircraft above 2 730kg MTOM, the permit to fly can only be issued for aircraft which are in a controlled environment and are managed by that CAMO.
- The permit to fly can be issued for any other aircraft for which the organisation can exercise the privilege in M.A.711(b).



## M.A.712 Quality system

Regulation (EU) 2015/1536

- (a) To ensure that the approved continuing airworthiness management organisation continues to meet the requirements of this Subpart, it shall establish a quality system and designate a quality manager to monitor compliance with, and the adequacy of, procedures required to ensure airworthy aircraft. Compliance monitoring shall include a feedback system to the accountable manager to ensure corrective action as necessary.
- (b) The quality system shall monitor activities carried out under <u>Section A, Subpart G</u> of this <u>Annex</u> (<u>Part-M</u>). It shall at least include the following functions:
  - 1. monitoring that all activities carried out under <u>Section A, Subpart G</u> of this <u>Annex (Part-M)</u> are being performed in accordance with the approved procedures, and;
  - 2. monitoring that all contracted maintenance is carried out in accordance with the contract, and;
  - 3. monitoring the continued compliance with the requirements of this Part.
- (c) The records of these activities shall be stored for at least two years.
- (d) Where the approved continuing airworthiness management organisation is approved in accordance with another Part, the quality system may be combined with that required by the other Part.
- (e) For licenced air carriers in accordance with Regulation (EC) No 1008/2008 the M.A. Subpart G quality system shall be an integrated part of the operator's quality system.
- (f) In the case of a small organisation not managing the continuing airworthiness of aircraft used by licenced air carriers in accordance with Regulation (EC) No 1008/2008, the quality system may be replaced by regular organisational reviews subject to the approval of the competent authority, except when the organisation issues airworthiness review certificates for aircraft above 2730 kg MTOM other than balloons. In the case where there is no quality system, the organisation shall not contract continuing airworthiness management tasks to other parties.

# AMC M.A.712(a) Quality system

ED Decision 2015/029/R

- 1. Procedures should be held current such that they reflect best practice within the organisation. It is the responsibility of all employees to report any difficulties with the procedures via their organisation's internal occurrence reporting mechanisms.
- 2. All procedures, and changes to the procedures, should be verified and validated before use where practicable.
- 3. The feedback part of the system should address who is required to rectify any non-compliance in each particular case and the procedure to be followed if rectification is not completed within appropriate timescales. The procedure should lead to the accountable manager specified in M.A.706.
- 4. The independent quality audit reports referenced in <u>AMC M.A.712(b)</u> should be sent to the relevant department for rectification action giving target rectification dates. Rectification dates should be discussed with such department before the quality department or nominated quality auditor confirms such dates in the report. The relevant department is required to rectify findings and inform the quality manager or the quality auditor of such rectification.

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5. The accountable manager should hold regular meetings with staff to check progress on rectification except that in the large organisations such meetings may be delegated on a day to day basis to the quality manager subject to the accountable manager meeting at least twice per year with the senior staff involved to review the overall performance and receiving at least a half yearly summary report on findings of non-compliance.

# AMC M.A.712(b) Quality System

FD Decision 2020/002/R

- 1. The primary objectives of the quality system are to enable the CAMO to ensure airworthy aircraft and to remain in compliance with the <a href="Part-M">Part-M</a> and, as applicable, Part-ML requirements.
- 2. An essential element of the quality system is the independent audit.
- 3. The independent audit is an objective process of routine sample checks of all aspects of the CAMO ability to carry out continuing airworthiness management to the required standards. It includes some product sampling as this is the end result of the process.
- 4. The independent audit represents an objective overview of the complete continuing airworthiness management related activities. It is intended to complement the M.A.902 or ML.A.902 requirement for an airworthiness review to be satisfied that all aircraft managed by the organisation remain airworthy.
- 5. The independent audit should ensure that all aspects of M.A. Subpart G compliance are checked annually, including all the sub-contracted activities, and may be carried out as a complete single exercise or subdivided over the annual period in accordance with a scheduled plan. The independent audit does not require each procedure to be checked against each product line when it can be shown that the particular procedure is common to more than one product line and the procedure has been checked every year without resultant findings. Where findings have been identified, the particular procedure should be rechecked against other product lines until the findings have been rectified after which the independent audit procedure may revert back to the annual interval for the particular procedure. Provided that there are no safety related findings, the audit time periods specified in this AMC may be increased by up to 100% subject to agreement by the competent authority.
- 6. Where the organisation has more than one location approved the quality system should describe how these are integrated into the system and include a plan to audit each location every year.
- 7. A report should be raised each time an audit is carried out describing what was checked and the resulting findings against applicable requirements, procedures and products.
- 8. The independence of the audit should be established by always ensuring that audits are carried out by personnel not responsible for the function, procedure or products being checked.
- 9. An organisation should establish a quality plan acceptable to the competent authority to show when and how often the activities as required by M.A. Subpart G will be audited.

# AMC M.A.712(f) Quality system

ED Decision 2015/029/R

A small organisation is considered to be an organisation with up to 5 full-time staff (including all M.A.706 personnel) or equivalent proportional number when using part-time staff. The complexity of the organisation, combination of aircraft and aircraft types, the utilisation of the aircraft and the



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number of approved locations of the organisations should also be considered before replacing the quality system by an organisational review.

Appendix XIII to this AMC should be used to manage the organisational reviews.

The following activities should not be considered as subcontracting and, as a consequence, they may be performed without a quality system, although they need to be described in the continuing airworthiness management exposition and be approved by the competent authority:

- Subscription to a technical publisher that provides maintenance data (Aircraft Maintenance Manuals, Illustrated Parts Catalogues, Service Bulletins, etc.), which may be applicable to a wide range of aircraft. These data may include maintenance schedules recommended by different manufacturers that can be afterwards used by the continuing airworthiness management organisation in order to produce customised maintenance programmes.
- Contracting the use of a software tool for the management of continuing airworthiness data and records, under the following conditions (in addition to M.A.714(d) and (e)):
  - If the tool is used by several organisations, each organisation should have access to its own data only.
  - Introduction of data can only be performed by personnel of the continuing airworthiness management organisation.
  - The data can be retrieved at any time.

# M.A.713 Changes to the approved continuing airworthiness organisation

Regulation (EU) No 1321/2014

In order to enable the competent authority to determine continued compliance with this Part, the approved continuing airworthiness management organisation shall notify it of any proposal to carry out any of the following changes, before such changes take place:

- 1. the name of the organisation.
- 2. the location of the organisation.
- 3. additional locations of the organisation.
- 4. the accountable manager.
- 5. any of the persons specified in M.A.706(c).
- 6. the facilities, procedures, work scope and staff that could affect the approval.

In the case of proposed changes in personnel not known to the management beforehand, these changes shall be notified at the earliest opportunity.

# AMC M.A.713 Changes to the approved continuing airworthiness organisation

ED Decision 2016/011/R

This paragraph covers scheduled changes to the CAMO approval. The primary purpose of this paragraph is to enable the CAMO to remain approved if agreed by the competent authority during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases.



## M.A.714 Record-keeping

Regulation (EU) 2020/270

- (a) The continuing airworthiness management organisation shall record all details of work carried out. The records required under point M.A.305 of this Annex (Part-M) or ML.A.305 of Annex Vb (Part-ML), as applicable, and if applicable point M.A.306 of this Annex (Part-M), shall be retained.
- (b) If the continuing airworthiness management organisation has the privilege referred to in point M.A.711(b), it shall retain a copy of each airworthiness review certificate and recommendation issued or, as applicable, extended, together with all supporting documents. In addition, the organisation shall retain a copy of any airworthiness review certificate that it has extended under the privilege referred to in point M.A.711(a)4.
- (c) If the continuing airworthiness management organisation has the privilege referred to in point M.A.711(c), it shall retain a copy of each permit to fly issued in accordance with the provisions of point 21A.729 of Annex I (Part-21) to Regulation (EU) No 748/2012.
- (d) The continuing airworthiness management organisation shall retain a copy of all records referred to in points (b) and (c) until two years after the aircraft has been permanently withdrawn from service.
- (e) The records shall be stored in a manner that ensures protection from damage, alteration and theft.
- (f) All computer hardware used to ensure backup shall be stored in a different location from that containing the working data in an environment that ensures they remain in good condition.
- (g) Where continuing airworthiness management of an aircraft is transferred to another organisation or person, all retained records shall be transferred to the said organisation or person. The time periods prescribed for the retention of records shall continue to apply to the said organisation or person.
- (h) Where a continuing airworthiness management organisation terminates its operation, all retained records shall be transferred to the owner of the aircraft.

# AMC M.A.714 Record-keeping

ED Decision 2020/002/R

- 1. The CAMO should ensure that it always receives a complete CRS from the approved maintenance organisation, M.A.801(b)(1) certifying staff and/or from the Pilot-owner such that the required records can be retained. The system to keep the continuing airworthiness records should be described in the organisation continuing airworthiness management exposition.
- 2. When an organisation arranges for the relevant maintenance organisation to retain copies of the continuing airworthiness records on its behalf, it will nevertheless continue to be responsible for the records under M.A.714 relating to the preservation of records. If it ceases to be the organisation of the aircraft, it also remains responsible for transferring the records to any other person or organisation managing continuing airworthiness of the aircraft.
- 3. Keeping continuing airworthiness records in a form acceptable to the competent authority means in paper form or on a computer database or a combination of both methods. Records stored in microfilm or optical disc form are also acceptable. The record should remain legible throughout the required retention period.
- 4. Paper systems should use robust material which can withstand normal handling and filing.

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5. Computer systems should have at least one backup system which should be updated within 24 hours of any new entry. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

Microfilming or optical storage of continuing airworthiness records may be carried out at any time. The records should be as legible as the original record and remain so for the required retention period.

# M.A.715 Continued validity of approval

Regulation (EU) 2021/700

- (a) An approval shall remain valid until 24 March 2022, subject to:
  - 1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under point M.B.705 and;
  - 2. the competent authority being granted access to the organisation to determine continued compliance with this Part, and;
  - 3. the approval not being surrendered or revoked.
- (b) Upon surrender or revocation, the approval certificate shall be returned to the competent authority.

# M.A.716 Findings

Regulation (EU) 2020/270

- (a) A level 1 finding is any significant non-compliance with the requirements of this Annex (Part-M) or Annex Vb (Part-ML), as applicable, which lowers the safety standard and hazards seriously the flight safety;
- (b) A level 2 finding is any non-compliance with the requirements of this Annex (Part-M) or Annex Vb (Part-ML), as applicable, which could lower the safety standard and possibly hazard the flight safety.
- (c) After receipt of notification of findings according to point M.B.705, the holder of the continuing airworthiness management organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.



## SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS

## M.A.801 Aircraft certificate of release to service

Regulation (EU) 2021/700

- (a) Except for aircraft released to service by a maintenance organisation approved in accordance with Annex II (Part-145), the CRS shall be issued in accordance with this Subpart.
- (b) No aircraft shall be released to service unless a CRS is issued when all maintenance tasks ordered have been properly carried out. The CRS shall be issued by an authorised certifying staff of the maintenance organisation approved in accordance with Subpart F of this Annex or with Annex Vd (Part-CAO), except for maintenance tasks other than complex maintenance tasks listed in Appendix VII to this Annex where the CRS is issued, alternatively by:
  - 1. independent certifying staff acting in accordance with the requirements laid down in Article 5 of this Regulation;
  - 2. the pilot-owner acting in accordance with point M.A.803 of this Annex.
- (c) By derogation from point (b), in case of unforeseen situations, when an aircraft is grounded at a location where no maintenance organisation approved in accordance with this Annex, Annex II (Part-145) or Annex Vd (Part-CAO) and no independent certifying staff are available, the owner may authorise any person, with no less than 3 years of appropriate maintenance experience and holding either a valid ICAO Annex 1 compliant maintenance license for the aircraft type requiring certification or a certifying staff authorisation valid for the work requiring certification issued by an ICAO Annex 6 approved maintenance organisation to maintain the aircraft in accordance with the standards set out in Subpart D of this Annex and release it to service. In that case, the owner shall:
  - 1. obtain and keep in the aircraft records specifying details of the maintenance carried out and of the qualifications of the person issuing the CRS;
  - 2. ensure that any such maintenance is later on verified and a new CRS is issued by an appropriately authorised person referred to in point (b) or an organisation approved in accordance with Subpart F of this Annex, Annex II (Part-145) or Annex Vd (Part-CAO), at the earliest opportunity and in any case within 7 calendar days from the issuance of a CRS by the person authorised by the owner;
  - 3. notify the organisation responsible for the continuing airworthiness management of the aircraft, when contracted, or the competent authority in the absence of such a contract, within 7 days from the issuance of such authorisation.
- (d) In case of a release to service in accordance with point (b)(1), the certifying staff may be assisted in performing the maintenance tasks by one or more persons subject to his or her direct and continuous control.
- (e) A CRS shall contain at least:
  - 1. basic details of the maintenance carried out;
  - 2. the date on which the maintenance was completed;
  - 3. the identity of the organisation or person issuing the CRS, including, alternatively:
    - (i) the approval reference of the maintenance organisation and the certifying staff issuing the CRS;

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- (ii) in the case referred to in point (b)(2), the identity and, where applicable, the licence number of the certifying staff issuing the CRS;
- 4. the limitations to airworthiness or operations, if any.
- (f) By derogation from point (b) and notwithstanding point (g), when the required maintenance cannot be completed, a CRS may be issued with the approved aircraft limitations. In that case, the certificate shall indicate that the maintenance could not be completed, as well as indicate any applicable airworthiness or operations limitations, as part of the information required by point (e)(4).
- (g) A CRS shall not be issued in the case of any known non-compliance which endangers flight safety.

# AMC M.A.801 Aircraft certificate of release to service after embodiment of a Standard Change or a Standard Repair (SC/SR)

D Decision 2020/002/R

## 1. Release to service and eligible persons

Only natural or legal persons entitled to release to service an aircraft after maintenance in accordance with <u>Part-M</u>, <u>Part-145</u> or Part-CAO are considered as an eligible installer responsible for the embodiment of a SC/SR when in compliance with applicable requirements.

For aircraft where there is no <u>Part-66</u> licence applicable, the release to service of an aircraft after embodiment of a SC/SR is only possible by holders of an appropriate certifying staff qualification valid in a Member State (national qualification), with the following conditions:

- If the holder signs the release to service on behalf of an Approved Maintenance Organisation (AMO), this is valid for aircraft registered in any Member State.
- If the holder signs the release to service as an independent certifying staff (not on behalf
  of an AMO), this is only valid for aircraft registered in the Member State responsible for
  such certifying staff qualification.

Depending on its nature, for certain SCs/SRs, the Certification Specification CS-STAN might restrict the eligibility for the issuance of the release to service to certain persons.

Since the design of the SC/SR does not require specific approval, the natural or legal person releasing the aircraft to service after the embodiment of the change or repair takes the responsibility that the applicable Certification Specifications within CS-STAN are fulfilled while being in compliance with <a href="Part-M">Part-M</a>, <a href="Part-M">Part-145</a> and/or Part-CAO and not in conflict with TC holders' data. This includes responsibility in respect of an adequate design, the selection/manufacturing of suitable parts and their identification, documenting the change or repair, generation or amendment of aircraft manuals and instructions as needed, embodiment of the change/repair, releasing the aircraft to service and record-keeping.

## 2. Parts and appliances to be installed as part of a SC/SR

The design of the parts and appliances to be used in a SC/SR is considered a part of the change/repair, and, therefore, there is no need of a specific design approval. However, it is possible that for a particular SC, these Certification Specifications specifically require the use of parts and appliances that meet a technical standard. In this case, when the parts and appliances require to be authorised as an ETSO article, other articles recognised as equivalent by means of an international safety agreement or grandfathered in accordance with Regulation (EU) No 748/2012 are equally acceptable.

Normally, a SC/SR shall not contain specifically designed parts that should be produced by a production organisation approved in accordance with Part-21 (POA). However, in the case that the change or repair would contain such a part, it should be produced by an approved Production Organisation (POA), and delivered with an EASA Form 1. An arrangement in accordance with 21.A.122(b) is not applicable.

Eligibility for installation of parts and appliances belonging to a SC/SR is subject to compliance with the Part-21 and Part-M, Part-145 and Part-CAO related provisions, and the situation varies depending on the aircraft in/on which the SC/SR is to be embodied, and who the installer is. The need for an EASA Form 1 is addressed in Part-21 and Part-M. Furthermore, Part-M Subpart F, Part-145 and Part-CAO contain provisions (i.e. M.A.603(c), 145.A.42(c) and CAO.A.020(c)) allowing maintenance organisations to fabricate certain parts to be installed in/on the aircraft as part of their maintenance activities.

## 3. Parts and appliances identification

The parts modified or installed during the embodiment of the SC/SR need to be permanently marked in accordance with Part-21 Subpart Q.

## 4. Documenting the SC/SR and declaring compliance with the Certification Specifications

In accordance with <u>Part-M</u>, Part-CAO or <u>Part-145</u> (e.g. <u>AMC M.A.801 (e)</u> and <u>AMC 145.A.50(b)</u>), the legal or natural person responsible for the embodiment of a change or a repair should compile details of the work accomplished. In the case of SCs/SRs, this includes, as necessary, based on its complexity, an engineering file containing drawings, a list of the parts and appliances used for the change or repair, supporting analysis and the results of tests performed or any other evidence suitable to show that the design fulfils the applicable Certification Specifications within CS-STAN together with a statement of compliance and amendments to aircraft manuals, to instructions for continuing airworthiness and to other documents such as aircraft parts list, wiring diagrams, etc., as deemed necessary. EASA Form 123 is prepared for the purpose of documenting the preparation and embodiment of the SC/SR. The aircraft logbook should contain an entry referring to EASA Form 123; both EASA Form 123 and the release to service required after the embodiment of the SC/SR should be signed by the same person.

Form 123 and all the records listed on it should follow elementary principles of controlled documentation, e.g. contain reference number of documents, issue dates, revision numbers, name of persons preparing/releasing the document, etc.

#### 5. Record-keeping

The legal or natural person responsible (see paragraph 1. above) for the embodiment of the change/repair should keep the records generated with the SC/SR as required by Part-M or Part-145 and CS-STAN.

In addition, <u>M.A.305</u> requires that the aircraft owner (or CAMO, if a contract i.a.w. <u>M.A.201</u> exists) keeps the status of the changes/repairs embodied in/on the aircraft in order to control the aircraft configuration and manage its continuing airworthiness.

With regard to SCs/SRs, the information provided to the owner or CAMO may be listed in Form 123 and should include, as required, a copy of any modified aircraft manual and/or instructions for continuing airworthiness. All this information should normally be consulted when the aircraft undergoes an airworthiness review, and, therefore, a clear system to record the embodiment of SCs/SRs, which is also easily traceable, would be of help during subsequent aircraft inspections.



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## 6. Instructions for continuing airworthiness

As stipulated in M.A.302, the aircraft owner or CAMO needs to assess if the changes in the instructions for continuing airworthiness of the aircraft require to amend the aircraft maintenance programme and to obtain its approval.

#### 7. Embodiment of more than one SC

The embodiment of two or more related SCs described in Subpart B of CS-STAN is permitted as a single change (the use of one Form 123 only) as long as adequate references to and records of all SCs embodied are captured. Restrictions and limitations of the two (or more) SCs would apply. It is permitted to issue a single release to service containing adequate traceability of all the SCs embodied.

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## 8. Acceptable form to be used to record the embodiment of SCs/SRs

EASA Form 123 — Standard Change/Standard Repair (SC/SR) embodiment record

EASA record	Form 123 — Standard Change/Standard	1. SC/SR number(s):					
2.							
3.	Applicability:						
4.	List of parts (description/Part-No/Qty):						
5.	Operational limitations/affected aircraft owner:	ft manuals. Copies of these manuals	s are provided to the aircraft				
6.	Documents used for the development	and embodiment of this SC/SR:					
	ies of the documents marked with an as						
7.	Instructions for continuing airworthine	ss. Copies of these manuals are pro	vided to the aircraft owner:				
8.	Other information:						
9a	9a. This SC complies with the criteria established in 21A.90B(a) and with the relevant paragraphs of CS-STAN.						
9b	This SR complies with the criteria es CS-STAN.	stablished in 21A.431B(a) and with	the relevant paragraphs of				
10.	Date of SC/SR embodiment: 11	<ol> <li>Identification data and signatu for the embodiment of the SC,</li> </ol>					
12.	Signature of the aircraft owner. This signature attests that all relevant documentation is handed over from the issuer of this form to the aircraft owner, and, therefore, the latter becomes aware of any impact or limitations on operations or additional continuing airworthiness requirements which may apply to the aircraft due to the embodiment of the change/repair.						

Form 123 Issue 00



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#### Notes:

Original remains with the legal or natural person responsible for the embodiment of the SC/SR.

The aircraft owner should retain a copy of this form.

The aircraft owner should be provided with copies of the documents referenced in boxes 5 and 7 and those in box 6 marked with an asterisk

The 'relevant paragraphs' in boxes 9a and 9b refer to the applicable paragraphs of 'Subpart A – General' of CS-STAN and those of the SC/SR quoted in box 2.

For box 12, when the aircraft owner has signed a contract i.a.w. M.A.201, it is possible that the Continuing Airworthiness Management Organisation (CAMO) representative signs box 12 and provides all relevant information to the owner before next flight.

#### **Completion instructions:**

Use English or the official language of the State of registry to fill in the form.

- 1. Identify the SC/SR with a unique number and reference this number in the aircraft logbook.
- 2. Specify the applicable EASA CS-STAN chapter including revision (e.g. CS-SCxxxy or CS-SRxxxy) & title. Provide also a short description.
- 3. Identify the aircraft (a/c) registration, serial number and type.
- 4. List the parts' numbers and description for the parts installed. Refer to an auxiliary document if necessary.
- 5. Identify affected aircraft manuals.
- 6. Refer to the documentation developed to support the SC/SR and its embodiment, including design data required by the CS-STAN: design definition, documents recording the showing of compliance with the Certification Specifications or any test result, etc. The documents' references should quote their revision/issue.
- 7. Identify instructions for continuing airworthiness that need to be considered for the aircraft maintenance programme review.
- 8. To be used as deemed necessary by the installer.

9a., 9b., 10. and 12. Self-explanatory.

11. Give full name details and certificate reference (of the natural or legal person) used for issuing the aircraft release to service.

# AMC M.A.801(b) Aircraft certificate of release to service

ED Decision 2015/029/R

A certificate of release to service is necessary before flight, at the completion of any defect rectification, whilst the aircraft operates a flight between scheduled maintenance checks.

# AMC M.A.801(c) Aircraft certificate of release to service

ED Decision 2020/002/R

## AIRCRAFT GROUNDED AT OTHER LOCATIONS

- '3 years of appropriate maintenance experience' means 3 years working in an aircraft maintenance environment on at least some of the aircraft type systems corresponding to the aircraft endorsed on the aircraft maintenance license or on the certifying staff authorisation that the person holds.
- 2. 'Holding the proper qualifications' means holding either:
  - (a) a valid ICAO Annex 1 compliant maintenance license for the aircraft type requiring certification, or;
  - (b) a certifying staff authorisation valid for the work requiring certification, issued by an ICAO Annex 6 approved maintenance organisation.

3. A release in accordance with this paragraph does not affect the controlled environment, in accordance with point (b) of M.A.901, of the aircraft as long as the M.A.801(c)2 recheck and release has been carried out by an approved maintenance organisation.

## AMC M.A.801(e) Aircraft certificate of release to service

ED Decision 2020/002/R

- 1. The aircraft certificate of release to service should contain the following statement:
  - (a) 'Certifies that the work specified except as otherwise specified was carried out in accordance with <a href="Part-M">Part-M</a> and in respect to that work the aircraft is considered ready for release to service'.
  - (b) For a Pilot-owner a certificate of release to service should contain the following statement:
    - 'Certifies that the limited pilot-owner maintenance specified except as otherwise specified was carried out in accordance with Part-M and in respect to that work the aircraft is considered ready for release to service'.
- 2. The certificate of release to service should relate to the task specified in the manufacturer's or operator's instruction or the aircraft maintenance programme which itself may cross-refer to a manufacturer's/operator's instruction in a maintenance manual, service bulletin etc.
- 3. The date such maintenance was carried out should include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/ landings etc., as appropriate.
- 4. When extensive maintenance has been carried out, it is acceptable for the certificate of release to service to summarise the maintenance so long as there is a unique cross-reference to the work-pack containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.
- 5. The person issuing the certificate of release to service should use his normal signature except in the case where a computer release to service system is used. In this latter case the competent authority will need to be satisfied that only the particular person can electronically issue the release to service. One such method of compliance is the use of a magnetic or optical personal card in conjunction with a personal identity number (PIN) known only to the individual, which is keyed into the computer. A certification stamp is optional.
- 6. At the completion of all maintenance, owners, certifying staff, operators and maintenance organisations should ensure they have a clear, concise, legible record of the work performed.
- 7. In the case of an M.A.801(b)1 release to service, certifying staff should retain all records necessary to prove that all requirements have been met for the issuance of a certificate of release to service.

# AMC M.A.801(f) Aircraft certificate of release to service

ED Decision 2020/002/R

## **INCOMPLETE MAINTENANCE**

1. Being unable to establish full compliance with sub-paragraph M.A.801(b) means that the maintenance required by the aircraft owner, CAO or CAMO could not be completed due either to running out of available aircraft maintenance downtime or because the maintenance data requires a flight to be performed as part of the maintenance, as described in paragraph 4.

- 2. The aircraft owner, CAO or CAMO is responsible for ensuring that all required maintenance has been carried out before flight. Therefore, an aircraft owner, CAO or CAMO should be informed and agree to the deferment of full compliance with <a href="M.A.801(b">M.A.801(b</a>). The certificate of release to service may then be issued subject to details of the deferment, including the aircraft owner, CAO or CAMO authorisation, being endorsed on the certificate.
- 3. If a CRS is issued with incomplete maintenance a record should be kept stating what action the mechanic, supervisor and certifying staff should take to bring the matter to the attention of the relevant aircraft owner, CAO or CAMO so that the issue may be discussed and resolved with the aircraft owner, CAO or CAMO.
- 4. Certain maintenance data issued by the design approval holder (e.g. aircraft maintenance manual (AMM)) require that a maintenance task be performed in flight as a necessary condition to complete the maintenance ordered. Within the aircraft limitations, the person authorised to certify the maintenance per M.A.801 should release the incomplete maintenance before this flight. GM M.A.301(i) describes the relations with the aircraft operator, which retains the responsibility for the MCF. After performing the flight and any additional maintenance necessary to complete the maintenance ordered, a certificate of release to service should be issued in accordance with M.A.801.

AMC M.A.801(g) Aircraft certificate of release to service

ED Decision 2020/002/R

'Endangers flight safety' means any instance where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning, electrical arcing, significant hydraulic fluid or fuel leakage and any emergency system or total system failure. An AD overdue for compliance is also considered a hazard to flight safety.

## M.A.802 Component certificate of release to service

Regulation (EU) 2020/270; Regulation (EU) 2021/700

- (a) Except for component released to service by a maintenance organisation approved in accordance with Annex II (Part-145), a CRS shall be issued at the completion of any maintenance carried out on an aircraft component in accordance with point M.A.502 of this Annex (Part-M).
- (a) Except for components released to service by a maintenance organisation that is approved in accordance with Annex II (Part-145) and for the cases covered by point (e) of point M.A.502, a CRS shall be issued at the completion of any maintenance work carried out on an aircraft component in accordance with point M.A.502.
  - [applicable from 18 May 2022]
- (b) The authorised release certificate identified as EASA Form 1 constitutes the component CRS, except when such maintenance on aircraft components has been performed in accordance with point (b) or (d) of point M.A.502 in which case the maintenance is subject to aircraft release procedures in accordance with point M.A.801.

# AMC M.A.802 Component certificate of release to service

ED Decision 2019/009/F

The purpose of the EASA Form 1 (see also <u>Appendix II to Part-M</u>) is to release components after manufacture and to release maintenance work carried out on such components under the approval

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of a competent authority, and to allow components that are removed from one aircraft/component to be fitted to another aircraft/component.

When an approved organisation maintains an aircraft component for use by the organisation, an <u>EASA Form 1</u> may not be necessary depending upon the organisation's internal release procedures; however all the information normally required for the EASA Form 1 should be adequately detailed in the certificate of release to service.

### M.A.803 Pilot-owner authorisation

Regulation (EU) 2019/1383

- (a) To qualify as a Pilot-owner, the person must:
  - hold a valid pilot licence (or equivalent) issued or validated by a Member State for the aircraft type or class rating; and
  - 2. own the aircraft, either as sole or joint owner; that owner must be:
    - (i) one of the natural persons on the registration form; or
    - (ii) a member of a non-profit recreational legal entity, where the legal entity is specified on the registration document as owner or operator, and that member is directly involved in the decision making process of the legal entity and designated by that legal entity to carry out Pilot-owner maintenance.
- (b) For any other than complex motor-powered aircraft of 2 730 kg MTOM and below, which are not used in CAT operations, in commercial specialised operations or in commercial operations by ATOs or DTOs, the pilot-owner may issue a CRS after having carried out limited pilot-owner maintenance as specified in <u>Appendix VIII</u> to this Annex.
- (c) The scope of the limited Pilot-owner maintenance shall be specified in the aircraft maintenance programme referred to in point M.A.302.
- (d) The CRS shall be entered in the aircraft continuing airworthiness record system and contain basic details of the maintenance carried out, the maintenance data used, the date on which that maintenance was completed, as well as the identity, the signature and pilot licence number of the pilot-owner issuing such a certificate.

### AMC M.A.803 Pilot-owner authorisation

ED Decision 2021/009/R

- 1. Privately operated means the aircraft is operated pursuant to M.A.201(i).
- 2. A Pilot-owner may only issue a CRS for maintenance he/she has performed.
- 3. In the case of a jointly-owned aircraft, the maintenance programme should list:
  - The names of all Pilot-owners competent and designated to perform Pilot-owner maintenance in accordance with the basic principles described in <u>Appendix VIII of Part-M</u>. An alternative would be the maintenance programme to contain a procedure to ensure how such a list of competent Pilot-owners should be managed separately and kept current.
  - The limited maintenance tasks they may perform.
- 4. An equivalent valid pilot licence may be any document attesting a pilot qualification recognised by the Member State. It does not have to be necessarily issued by the competent authority, but



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it should in any case be issued in accordance with the particular Member State's system. In such a case, the equivalent certificate or qualification number should be used instead of the pilot's licence number for the purpose of the  $\underline{M.A.801(b)(2)}$  (certificate of release to service).

5. Not holding a valid medical examination does not invalidate the pilot licence (or equivalent) required under M.A.803(a)1 for the purpose of the Pilot-owner authorisation.



### SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE

## M.A.901 Aircraft airworthiness review

Regulation (EU) 2021/700

To ensure the validity of the aircraft airworthiness certificate, an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically.

- (a) An airworthiness review certificate is issued in accordance with Appendix III (<u>EASA Form 15a</u> or <u>15b</u>) to this Annex upon completion of a satisfactory airworthiness review. The airworthiness review certificate shall be valid for 1 year;
- (b) An aircraft in a controlled environment is an aircraft which, during the preceding 12 months:
  - 1. has had its airworthiness continuously managed by a unique CAMO or CAO;
  - 2. has been maintained by a maintenance organisation approved in accordance with Subpart F of this Annex, Annex II (Part-145) or Annex Vd (Part-CAO), including the cases when maintenance tasks referred to in point (b) of point M.A.803 are carried out and released to service in accordance with point (b)(1) or (b)(2) of point M.A.801 of this Annex.
- (c) For all aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, and for aircraft above 2 730 kg MTOM that are in a controlled environment, the organisation referred to in point (b)(1) managing the continuing airworthiness of the aircraft may in accordance with <a href="Maintenance">CAMO.A.125(e)</a> of Annex Vc or point <a href="M.A.711(b)">M.A.711(b)</a> of this Annex or point <a href="CAO.A.095(c)(1)">CAO.A.095(c)(1)</a> of Annex Vd, as applicable, and subject to compliance with point (j):
  - 1. issue an airworthiness review certificate in accordance with point M.A.901;
  - 2. extend at most twice the validity of the airworthiness review certificate it has issued, for a period of 1 year each time, where the aircraft concerned has remained within a controlled environment.
- (d) The airworthiness review certificate shall be issued by the competent authority upon a satisfactory assessment based on a recommendation made by a CAMO or CAO, sent together with the application from the owner or operator for all aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, and for aircraft above 2 730 kg MTOM that complies with the following alternative conditions:
  - 1. they are not in a controlled environment;
  - 2. their continuing airworthiness is managed by an organisation that does not hold the privilege to carry out airworthiness reviews.

The recommendation referred to in the first subparagraph shall be based on an airworthiness review carried out in accordance with point M.A.901.

- (e) For aircraft of 2 730 kg MTOM and below not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, any CAMO or CAO chosen by the owner or operator may in accordance with CAMO.A.125(e) of Annex Vc or point M.A.711(b) of this Annex or CAO.A.095(c) of Annex Vd, as applicable, and subject to compliance with point (j):
  - 1. issue the airworthiness review certificate in accordance with point M.A.901;

- 2. extend at most twice the validity of the airworthiness review certificate it has issued, for a period of 1 year each time, where the aircraft has remained within a controlled environment under its management.
- (f) By derogation from points (c)(2) and (e)(2) of point M.A.901, for aircraft that are in a controlled environment, the organisation referred to in point (b)(1) managing the continuing airworthiness of the aircraft, may, subject to compliance with point (j), extend at most twice the validity of an airworthiness review certificate that the competent authority or another CAMO or CAO has issued, for a period of 1 year each time.
- (g) Whenever circumstances reveal the existence of a potential risk to aviation safety, the competent authority shall carry out the airworthiness review and issue the airworthiness review certificate itself.
- (h) Without prejudice to point (g), the competent authority may carry out the airworthiness review and issue the airworthiness review certificate itself in the following cases:
  - 1. when the continuing airworthiness of the aircraft is managed by a CAMO or CAO which has its principal place of business located in a third country;
  - 2. for any other aircraft of 2 730 kg MTOM and below, if the owner so requests.
- (i) Where the competent authority issues the airworthiness review certificate itself in accordance with points (g) or (h) or after assessing the recommendation in accordance with point M.B.901, the owner or operator of the aircraft shall, where necessary for those purposes, provide the competent authority with:
  - 1. any documentation required by the competent authority;
  - 2. suitable accommodation at the appropriate location for its personnel;
  - 3. the support of the certifying staff
- (j) An airworthiness review certificate shall not be issued, nor extended if there is evidence or indications that the aircraft is not airworthy.
- (k) The airworthiness review of the aircraft shall include a full documented review of the aircraft records establishing that the following requirements have been met:
  - 1. airframe, engine and propeller flying hours and associated flight cycles have been properly recorded;
  - 2. the flight manual is applicable to the aircraft configuration and reflects the latest revision status;
  - 3. all the maintenance due on the aircraft pursuant to the approved AMP has been carried out:
  - 4. all known defects have been corrected or, when applicable, carried forward in a controlled manner in accordance with M.A.403;
  - 5. all applicable ADs have been applied and properly registered;
  - 6. all modifications and repairs applied to the aircraft have been registered and are in compliance with point M.A.304;
  - 7. all life-limited parts and time-controlled components installed on the aircraft are properly identified, registered and have not exceeded their limitation;
  - 8. all maintenance has been carried out in accordance with this Annex;

- 9. the current mass and balance statement reflects the current configuration of the aircraft and is valid;
- 10. the aircraft complies with the latest revision of its type design approved by the Agency;
- 11. if required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with Subpart I of Annex I (Part-21) to Regulation (EU) No 748/2012.
- (I) The airworthiness review of the aircraft shall include a physical survey of the aircraft. For that survey, airworthiness review staff not appropriately qualified in accordance with Annex III (Part-66) shall be assisted by such qualified staff.
- (m) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:
  - 1. all required markings and placards are properly installed;
  - 2. the aircraft complies with its approved flight manual;
  - 3. the aircraft configuration complies with the approved documentation;
  - 4. no evident defect can be found that has not been addressed in accordance with point M.A.403;
  - 5. no inconsistencies can be found between the aircraft and the documented review of records referred to in point (k).
- (n) By derogation from point (a), the airworthiness review may be anticipated by a maximum period of 90 days without loss of continuity of the airworthiness review pattern, so as to allow for the physical review to take place during a maintenance check.
- (o) The airworthiness review certificate (<u>EASA Form 15b</u>) or the recommendation for the issue of the airworthiness review certificate (<u>EASA Form 15a</u>) referred to in Appendix III to this Annex can only be issued:
  - 1. by authorised airworthiness review staff on behalf of the approved organisation;
  - 2. if the airworthiness review has been completely carried out.
- (p) A copy of any airworthiness review certificate issued or extended for an aircraft shall be sent to the Member State of registry of the aircraft concerned within 10 days.
- (q) Airworthiness review tasks shall not be subcontracted.
- (r) Should the outcome of the airworthiness review be inconclusive, the organisation having carried out the review shall inform the competent authority as soon as possible and in any case within 72 hours from the moment the organisation identifies the reason for which the airworthiness review is inconclusive.
- (s) The airworthiness review certificate shall not be issued until all findings have been closed.

### AMC M.A.901 Aircraft airworthiness review

ED Decision 2015/029/R

In order to ensure the validity of the aircraft airworthiness certificate, <u>M.A.901</u> requires performing periodically an airworthiness review of the aircraft and its continuing airworthiness records, which results in the issuance of an airworthiness review certificate valid for one year.

Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

### **GM M.A.901 Airworthiness review**

ED Decision 2020/002/R

#### Responsibilities of airworthiness review staff:

The following is a summary of the requirements contained in <u>M.A.901</u> as well as the associated AMC and Appendices, in relation to the responsibilities of the airworthiness review staff:

- Airworthiness review staff are responsible for performing both the documental and the physical survey. First numbered paragraph. Use ListLevelO style.
- Procedures must be established by the CAMO or CAO in order to perform the airworthiness review, including the depth of samplings.
- Procedures must make very clear that the final word about the depth of the inspections (both documental and physical) belongs to the airworthiness review staff, who can go beyond the depth established in the CAME or CAE if they find it necessary. At the end, it is the responsibility of the airworthiness review staff to be satisfied that the aircraft complies with Part-M and is airworthy, and the organisation must ensure that no pressure or restrictions are imposed on the airworthiness review staff when performing their duty.
- A compliance report must be produced by the airworthiness review staff, detailing all items checked and the outcome of the review.
- Airworthiness review staff are responsible for the items checked during the airworthiness review. However, they do not take over the responsibilities of the CAMO, maintenance organisation, DOA, POA or any other organisations, not being responsible for problems not detected during the airworthiness review or for the possibility that the approved or declared maintenance programme may not include certain recommendations from the design approval holder. Obviously, if the airworthiness review staff are not independent of the airworthiness management process and were nominated on the basis of the option of having overall authority on such a process, they will be responsible for the full continuing airworthiness of such aircraft. Nevertheless, this responsibility will be a consequence of their position in the organisation and not of their function as airworthiness review staff.
- The issuance of the airworthiness review certificate (ARC) by the airworthiness review staff only certifies that the aircraft is considered airworthy in relation to the scope of the airworthiness review performed and the fact that the airworthiness review staff are not aware of instances of non-compliance which endanger flight safety. Furthermore, it only certifies that the aircraft is considered airworthy at the time of the review.

It is the responsibility of the owner or contracted CAMO or CAO to ensure that the aircraft is fully airworthy at any time.

# GM M.A.901(a) Aircraft airworthiness review

ED Decision 2020/002/R

<u>EASA Form 15a</u> is issued by competent authorities while <u>EASA Form 15b</u> is issued by a CAMO or CAO organisation.



### AMC M.A.901(b) Aircraft airworthiness review

ED Decision 2016/011/R

- If the continuing airworthiness of the aircraft is not managed according to an Appendix I
  Continuing airworthiness contract, the aircraft should be considered to be outside a controlled
  environment. Nevertheless, such contract is not necessary when the operator and the CAMO
  are the same organisation.
- 2. The fact that limited pilot-owner maintenance as defined in M.A.803(b) is not carried out and released by an approved maintenance organisation does not change the status of an aircraft in a controlled environment providing the CAMO under contract has been informed of any such maintenance carried out.

# AMC M.A.901(c)2, (e)2 and (f) Aircraft airworthiness review

ED Decision 2015/029/F

When the aircraft has remained within a controlled environment, the extension of the validity of the airworthiness review certificate does not require an airworthiness review but only a verification of the continuous compliance with M.A.901(b).

It is acceptable to anticipate the extension of the airworthiness review certificate by a maximum of 30 days without a loss of continuity of the airworthiness review pattern, which means that the new expiration date is set up one year after the previous expiration date. This anticipation of up to 30 days also applies to the 12 month requirements shown in M.A.901(b), meaning that the aircraft is still considered as being in a controlled environment if it has been continuously managed by a single organisation and maintained by appropriately approved organisations, as stated in M.A.901(b), from the date when the last airworthiness review certificate was issued until the date when the extension is performed (this can be up to 30 days less than 12 months).

It is also acceptable to perform the extension of an airworthiness review certificate after its expiration date, as long as all the conditions for the extension are met. However, this means the following:

- The aircraft could not fly since the airworthiness review certificate expired until it is extended,
- The new expiration date (after extension) is set one year after the previous expiration date (not one year after the extension is performed).

# AMC M.A.901(d) Aircraft airworthiness review

ED Decision 2020/002/R

The recommendation sent by a CAMO or CAO to the competent authority of the Member State of registry should be, at least, in English when the Member State of registry is different from the CAMO/CAO's Member State. Otherwise, it can be completed in the official language(s) of the CAMO/CAO's Member State.

The recommendation sent to the competent authority should contain at least the items described below:

- (a) General information
  - CAMO information
  - owner/lessee information
  - date and place where the document review and the aircraft survey were carried out

period and place the aircraft can be seen if required by the competent authority

### (b) Aircraft information

- registration
- type
- manufacturer
- serial number
- flight manual reference
- weight and centre of gravity data
- maintenance programme reference

### (c) Documents accompanying the recommendation

- copy of registration papers
- copy of the owners request for a new airworthiness review certificate

### (d) Aircraft status

- aircraft total time and cycles
- list of persons or organisations having carried out continuing airworthiness activities including maintenance tasks on the aircraft and its components since the last airworthiness review certificate

#### (e) Aircraft survey

a precise list of the areas of the aircraft that were surveyed and their status

### (f) Findings

 a list of all the findings made during the airworthiness review with the corrective action carried out

### (g) Statement

A statement signed by the airworthiness review staff recommending the issue of an airworthiness review certificate.

The statement should confirm that the aircraft in its current configuration complies with the following:

- airworthiness directives up to the latest published issue, and;
- type certificate datasheet;
- maintenance programme;
- limitation for life-limited parts and time-controlled components;
- the valid weight and centre of gravity schedule reflecting the current configuration of the aircraft;
- Part-21 for all modifications and repairs;
- the current flight manual including supplements, and;
- operational requirements.

The above items should clearly state the exact reference of the data used in establishing compliance; for instance the number and issue of the type certificate data sheet used should be stated.

The statement should also confirm that all of the above is properly entered and certified in the aircraft continuing airworthiness record system and/or in the operator's technical log.

# AMC M.A.901(i) Aircraft airworthiness review

ED Decision 2020/002/R

Suitable accommodation should include:

- (a) an office with normal office equipment such as desks, telephones, photocopying machines etc. whereby the continuing airworthiness records can be reviewed.
- (b) a hangar when needed for the physical survey.

The support of personnel appropriately qualified in accordance with <u>Part-66</u> is necessary when the competent authority's airworthiness review staff is not appropriately qualified.

# AMC M.A.901(k) Aircraft airworthiness review

ED Decision 2020/002/R

### **FULL DOCUMENTED REVIEW**

- 1. A full documented review is a check of at least the following categories of documents:
  - registration papers;
  - M.A.305 aircraft continuing airworthiness record system;
  - M.A.306 aircraft technical log system;
  - list of deferred defects, minimum equipment list and configuration deviation, list if applicable;
  - aircraft flight manual including aircraft configuration;
  - aircraft maintenance programme;
  - maintenance data;
  - relevant work packages;
  - AD status;
  - modification and SB status;
  - modification and repair approval sheets;
  - status of life-limited parts and time-controlled components;
  - relevant EASA Form 1 or equivalent;
  - mass and balance report and equipment list;
  - aircraft, engine and propeller TC data sheets.

As a minimum, sample checks within each document category should be carried out.

Annex I (Part-M)

SECTION A — TECHNICAL

REQUIREMENTS

2. The CAMO or CAO should develop procedures for the airworthiness review staff to produce a compliance report that confirms the above have been reviewed and found in compliance with Part-M.

# AMC M.A.901(I) and (m) Aircraft airworthiness review

ED Decision 2020/002/R

#### **PHYSICAL SURVEY**

- 1. The physical survey could require actions categorised as maintenance (e.g. operational tests, tests of emergency equipment, visual inspections requiring panel opening, etc.). In this case, after the airworthiness review, a release to service should be issued.
- 2. When the airworthiness review staff are not appropriately qualified as per Part-66 in order to release such maintenance, M.A.901(I) requires them to be assisted by such qualified personnel. However, the function of such Part-66 personnel is limited to performing and releasing the maintenance actions requested by the airworthiness review staff, it not being their function to perform the physical survey of the aircraft.
- 3. This means that the airworthiness review staff who is going to sign the airworthiness review certificate or the recommendation should be the one performing both the documented review and the physical survey of the aircraft. It is not the intent of the rule to delegate the survey to Part-66 personnel who are not airworthiness review staff. Furthermore, the provision of M.A.901(n) that allows a 90-day anticipation for the physical survey provides enough flexibility to ensure that the airworthiness review staff (ARS) are present.
- 4. The physical survey may include verifications to be carried out during flight.
- 5. The CAMO or CAO should develop procedures for the ARS to produce a compliance report that confirms that the physical survey has been carried out and found satisfactory.
- 6. To ensure compliance, the physical survey may include relevant sample checks of items.

# AMC M.A.901(n) Aircraft airworthiness review

ED Decision 2020/002/R

'Without loss of continuity of the airworthiness review pattern' means that the new expiration date is set up 1 year after the previous expiration date. As a consequence, when the airworthiness review is anticipated, the validity or the airworthiness review certificate is longer than 1 year (up to 90 days longer).

This anticipation of up to 90 days also applies to the 12-month requirements shown in M.A.901(b), which means that the aircraft is still considered as being in a controlled environment if it has been continuously managed by a single organisation and maintained by appropriately approved organisations, as stated in M.A.901(b), from the date when the last airworthiness review certificate was issued until the date when the new airworthiness review is performed (this can be up to 90 days less than 12 months).

# AMC M.A.901(o) Airworthiness review

ED Decision 2020/002/F

A copy of both the physical survey and document review compliance reports stated above should be sent to the competent authority together with any recommendation issued.



### M.A.902 Validity of the airworthiness review certificate

Regulation (EU) 2019/1383

- (a) An airworthiness review certificate becomes invalid if:
  - 1. suspended or revoked; or
  - 2. the airworthiness certificate is suspended or revoked; or
  - 3. the aircraft is not on the aircraft register of a Member State; or
  - 4. the type certificate under which the airworthiness certificate was issued is suspended or revoked.
- (b) An aircraft must not fly if the airworthiness certificate is invalid or if:
  - the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Part; or
  - 2. the aircraft does not remain in conformity with the type design approved by the Agency; or
  - 3. the aircraft has been operated beyond the limitations of the approved flight manual or the airworthiness certificate, without appropriate action being taken; or
  - 4. the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness; or
  - 5. a modification or repair is not in compliance with point M.A.304.
- (c) Upon surrender or revocation, the airworthiness review certificate shall be returned to the competent authority

# M.A.903 Transfer of aircraft registration within the EU

Regulation (EU) No 1321/2014

- (a) When transferring an aircraft registration within the EU, the applicant shall:
  - inform the former Member State in which Member State it will be registered, then;
  - 2. apply to the new Member State for the issuance of a new airworthiness certificate in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012.
- (b) Notwithstanding point M.A.902(a)(3), the former airworthiness review certificate shall remain valid until its expiry date.

# AMC M.A.903(a)1 Transfer of aircraft registration within the EU

ED Decision 2015/029/F

The applicant should notify to the competent authority within the former Member State of registry so as to allow the proper transfer of information between the two competent authorities during the aircraft transfer process.



### AMC M.A.903(b) Transfer of aircraft registration within the EU

ED Decision 2015/029/R

In case of transfer of aircraft registration within EU, the aircraft owner/ operator should verify that the competent authority of the new Member State of registry has entered the new aircraft registration on the existing airworthiness review certificate and validated the change.

## M.A.904 Airworthiness review of aircraft imported into the EU

Regulation (EU) 2019/1383

- (a) When importing an aircraft onto a Member State register from a third country or from a regulatory system where Regulation (EU) 2018/1139 does not apply, the applicant shall:
  - apply to the competent authority of the Member State of registry for the issuance of a new airworthiness certificate in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012;
  - 2. for aircraft other than new, have an airworthiness review carried out in accordance with point M.A.901;
  - 3. have all maintenance carried out to comply with the AMP approved in accordance with point M.A.302.
- (b) When satisfied that the aircraft is in compliance with the relevant requirements, the organisation performing the airworthiness review, shall send a documented recommendation for the issuance of an airworthiness review certificate to the competent authority of the Member State of registry.
- (c) The owner of the aircraft shall allow access to the aircraft for inspection by the competent authority of the Member State of registry.
- (d) The competent authority of the Member State of registry shall issue an airworthiness certificate when it is satisfied that the aircraft complies with the requirements of Annex I (Part-21) to Regulation (EU) No 748/2012.
- (e) That competent authority of the Member State shall also issue the airworthiness review certificate. The certificate shall be valid for 1 year, unless the competent authority decides to reduce the period of validity for reasons of aviation safety.

# AMC M.A.904(a)1 Airworthiness reviews of aircraft imported into the EU

ED Decision 2015/029/R

In order to allow for possible participation of authority personnel, the applicant should inform the competent authority at least 10 working days in advance of the time and location of the airworthiness review.

# AMC M.A.904(a)2 Airworthiness reviews of aircraft imported into the EU

ED Decision 2020/002/R

WORK TO BE UNDERTAKEN TO ESTABLISH AIRWORTHINESS



- 1. When performing an airworthiness review of aircraft imported into the EU the aircraft and the relevant records should be reviewed to determine the work to be undertaken to establish the airworthiness of the aircraft.
- 2. In determining the work to be undertaken during the airworthiness review on the aircraft, the following should be taken into consideration:
  - (a) the information from third country authorities such as export certificates, primary authority information;
  - (b) the information on aircraft maintenance history such as continuing airworthiness records, aircraft, engine, propeller, rotor and life limited part log books or cards as appropriate, tech log/flight log/cabin log, list of deferred defects, total flight times and cycles, times and cycles since last maintenance, accident history, former maintenance schedule, former AD compliance status;
  - (c) the information on aircraft such as aircraft, engine and propeller type certificate datasheets, noise and emission certificate data sheets, flight manual and supplements;
  - (d) the aircraft continuing airworthiness status such as the aircraft and component AD status, the SB status, the maintenance status, the status of life-limited parts and time-controlled components, weight and centre of gravity schedule including equipment list;
  - (e) the modification and repair status of the aircraft detailing elements such as owner/operator designed modifications and repairs, STCs, and parts needing European parts approval (EPA);
  - (f) the aircraft cabin configuration such as emergency equipment fitted, cockpit configuration, placards, instrument limitations, cabin layout;
  - (g) the maintenance needed for import, such as embodiment of modifications needed to comply with the EASA type certificate, bridging check to comply with the new maintenance programme;
  - (h) the avionics such as, but not limited to, radio and navigation equipment, instrument flight rules (IFR) equipment, digital flight data recorder (DFDR)/cockpit voice recorder (CVR) test, emergency locator transmitter (ELT) 406 MHz code and identification;
  - (i) the compass compensation;
  - (j) special operating rules such as extended twin-engine operations (ETOPS)/long range operations (LROPS), reduced vertical separation minima (RVSM), minimum navigation performance specifications (MNPS), all weather operations (AWOPS), area navigation (RNAV);
  - (k) the aircraft survey including verification of conformity with the flight manual and the datasheet, presence of fire proof identification plates, conformity of markings including registration, presence and serviceability of emergency equipment, internal and external lighting systems, and
  - (I) maintenance check flight including check of control system/cockpit ground check/engine run up.
- 3. If there is no CAMO or maintenance organisation approved for the airworthiness review of the specific aircraft type available, the competent authority may carry out the airworthiness review in accordance with this paragraph and the provisions M.A.901(g) and M.B.902. In this case, the airworthiness review should be requested to the competent authority with a 30-day notice.

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SECTION A — TECHNICAL

REQUIREMENTS

# AMC M.A.904(b) Airworthiness review of aircraft imported into the EU

ED Decision 2020/002/R

#### **CONTENT OF RECOMMENDATION**

The recommendation sent to the competent authority should contain at least the items described below.

- (a) All the information set forth by AMC M.A 901(d)
- (b) Aircraft information
  - aircraft assigned registration;
  - state of manufacturer;
  - previous registration;
  - export certificate number;
  - TC and TC data sheet numbers;
  - noise and emissions TC and TC data sheet numbers;
  - comparison of prior maintenance programme with the proposed new maintenance programme.
- (c) Documents accompanying the recommendation
  - copy of the application;
  - original export certificate;
  - copy of the approvals of the flight manual and its supplements;
  - list of ADs incorporated up to the latest published issue;
  - proposed new maintenance programme;
  - status of all life-limited parts and time-controlled components;
  - the valid weight and centre of gravity schedule reflecting the current configuration of the aircraft, and;
  - Part-21 approval reference for all modifications and repairs.
- (d) Maintenance
  - a copy of the work packages requested by the CAMO including details of any bridging check to ensure all the necessary maintenance has been carried out.
- (e) Aircraft maintenance check flight
  - a copy of the maintenance check flight report.

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SECTION A — TECHNICAL

REQUIREMENTS

# M.A.905 Findings

Regulation (EU) 2019/1383

- (a) A level 1 finding is any finding of significant non-compliance with the requirements of this Annex, which lowers the safety standard and seriously endangers flight safety.
- (b) A level 2 finding is any finding of non-compliance with the requirements of this Annex, which may lower the safety standard and may endanger the flight safety.
- (c) After receipt of notification of findings according to point M.B.903, the person or organisation accountable referred to in point M.A.201 shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority including appropriate corrective action to prevent reoccurrence of the finding and its root cause.



### SECTION B — PROCEDURE FOR COMPETENT AUTHORITIES

### SUBPART A — GENERAL

## M.B.101 Scope

Regulation (EU) No 1321/2014

This Section establishes the administrative requirements to be followed by the competent authorities in charge of the application and the enforcement of Section A of this Part.

# M.B.102 Competent authority

Regulation (EU) No 1321/2014

(a) General

A Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of certificates and for the oversight of continuing airworthiness. This competent authority shall establish documented procedures and an organisational structure.

(b) Resources

The number of staff shall be appropriate to carry out the requirements as detailed in this Section.

(c) Qualification and training

All staff involved in activities dealt with in this Annex shall be appropriately qualified and have appropriate knowledge, experience, initial training and continuation training to perform their allocated tasks.

(d) Procedures

The competent authority shall establish procedures detailing how compliance with this <u>Annex</u> (Part-M) is accomplished.

The procedures shall be reviewed and amended to ensure continued compliance.

# AMC M.B.102(a) Competent authority — General

ED Decision 2020/002/R

- In deciding upon the required airworthiness organisational structure, the competent authority should review the number of certificates to be issued, the number and size of potential operators, the number of approved maintenance organisations and CAMOs within that Member State, as well as the level of civil aviation activity, number and complexity of aircraft and the size of the Member State's aviation industry.
- 2. The competent authority should retain effective control of important inspection functions and not delegate them in such a way that aircraft owners, operators, approved maintenance organisations and CAMOs, in effect, regulate themselves in airworthiness matters.
- 3. The set-up of the organisational structure should ensure that the various tasks and obligations of the competent authority are not relying on individuals. That means that a continuing and

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SECTION B — PROCEDURE FOR

COMPETENT AUTHORITIES

undisturbed fulfilment of these tasks and obligations of the competent authority should also be guaranteed in case of illness, accident or leave of individual employees.

# AMC1 M.B.102(c) Competent authority — Qualification and training

ED Decision 2016/011/R

- 1. Competent authority inspectors should have:
  - practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - 1.2. comprehensive knowledge of:
    - (a) relevant parts of implementing rules, certification specifications and guidance material;
    - (b) the competent authority's procedures;
    - (c) the rights and obligations of an inspector;
    - (d) quality systems;
    - (e) continuing airworthiness management;
    - (f) operational procedures when affecting the continuing airworthiness management of the aircraft or the maintenance.
  - 1.3. training on auditing techniques.
  - 1.4. five years relevant work experience to be allowed to work as an inspector independently. This may include experience gained during training to obtain the subparagraph 1.5 qualification.
  - 1.5. a relevant engineering degree or an aircraft maintenance technician qualification with additional education. 'Relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components.
  - 1.6. knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course including Fuel Tank Safety (FTS) training as described in <u>Appendix XII to AMC M.A.706(f) and AMC1 M.B.102(c)</u>. These courses should be at least at a level equivalent to <u>Part-66 Appendix III Level 1 General Familiarisation</u>.
    - 'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.
  - 1.7. knowledge of maintenance standards.
- 2. In addition to technical competency, inspectors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.
- 3. A programme for continuation training should be developed which provides for the inspectors, at regular intervals, to visit appropriate manufacturers and attend technical symposia as well as training or refresher courses to gain first-hand knowledge of new developments. As a general policy, it is not desirable for the inspectors to obtain technical qualifications from those entities under their direct regulatory jurisdiction.



# AMC2 M.B.102(c) Competent authority — Qualification and training

ED Decision 2016/011/R

### AIRCRAFT CONTINUING AIRWORTHINESS MONITORING (ACAM) INSPECTORS

- 1. ACAM in-depth surveys should be performed by competent authority inspectors qualified in accordance with M.B.102(c).
- 2. ACAM ramp surveys may be performed by inspectors qualified for the technical tasks of ramp inspections in accordance with other Parts, or by inspectors qualified in accordance with M.B.102(c).

# AMC M.B.102(d) Competent authority organisation — Procedures

ED Decision 2015/029/R

The documented procedures should contain the following information:

- (a) The Member State's designation of the competent authority(ies).
- (b) The title(s) and name(s) of the manager(s) of the competent authority and their duties and responsibilities.
- (c) Organisation chart(s) showing associated chains of responsibility of the senior persons.
- (d) A procedure defining the qualifications for staff together with a list of staff authorised to sign certificates.
- (e) A general description of the facilities.
- (f) Procedures specifying how the competent authority(ies) ensure(s) compliance with Part-M.

# M.B.103 Findings and enforcement measure - persons

Regulation (EU) 2019/1383

If, during oversight or by any other means, evidence is found by the competent authority responsible for oversight in accordance with this Annex that shows a non-compliance with the applicable requirements of Regulation (EU) 2018/1139 by a person holding a licence, certificate, rating or attestation issued in accordance with Regulation (EU) 2018/1139, the competent authority that identified the non-compliance shall take any enforcement measures necessary to prevent the continuation of that non-compliance.

# M.B.104 Record-keeping

Regulation (EU) 2020/270

- (a) The competent authorities shall establish a system of record-keeping that allows adequate traceability of the process to issue, continue, change, suspend or revoke each certificate.
- (b) The records for the oversight of organisations approved in accordance with this Annex shall include as a minimum:
  - 1. the application for an organisation approval;
  - 2. the organisation approval certificate including any changes;
  - 3. a copy of the audit programme listing the dates when audits are due and when audits were carried out;

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SECTION B — PROCEDURE FOR

COMPETENT AUTHORITIES

- 4. the competent authority continued oversight records including all audit records;
- 5. copies of all relevant correspondence;
- 6. details of any exemption and enforcement actions;
- 7. any report from other competent authorities relating to the oversight of the organisation;
- 8. organisation exposition or manual and amendments;
- 9. copy of any other document directly approved by the competent authority.
- (c) The retention period for the point (b) records shall be at least 5 years.
- (d) The minimum records for the oversight of each aircraft shall include, at least, a copy of:
  - 1. the aircraft certificate of airworthiness;
  - 2. airworthiness review certificates;
  - 3. airworthiness review recommendations issued by CAO or CAMO;
  - 4. the reports from the airworthiness reviews carried out directly by the competent authority;
  - 5. all relevant correspondence relating to the aircraft;
  - 6. the details of any exemption and enforcement action(s);
  - 7. any document approved by the competent authority pursuant to this Annex or Annex II to Regulation (EU) No 965/2012 (Part-ARO).
- (e) The records specified in point (d) shall be retained until 2 years after the aircraft has been permanently withdrawn from service.
- (f) All records shall be made available upon request by another Member State or the Agency.

# AMC M.B.104(a) Record-keeping

ED Decision 2015/029/R

- 1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organized in a consistent way throughout the competent authority (chronological, alphabetical order, etc.).
- 2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.
- 3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware- or software-changes take place special care should be taken that all necessary data continues to be accessible at least through the full period specified in M.B.104(c) and/or (e).



### AMC M.B.104(f) Record-keeping

ED Decision 2015/029/R

The cases, when records shall be made available should be limited to:

- incidents or accidents,
- findings through the aircraft continuing monitoring program where organisations approved by another competent authority are involved, to determine the root cause,
- aircraft mainly operated in another Member State,
- an aircraft previously operated in another Member State,
- an organisation having approvals in several Member States.

When records are requested from another Member State, the reason for the request should be clearly stated. The records can be made available by sending a copy or by allowing their consultation.

## M.B.105 Mutual exchange of information

Regulation (EU) 2020/270

- (a) In order to contribute to the improvement of air safety, the competent authorities shall participate in a mutual exchange of all necessary information in accordance with Article 72 of Regulation (EU) 2018/1139.
- (b) Without prejudice to the competencies of the Member States, in the case of a potential safety threat involving several Member States, the concerned competent authorities shall assist each other in carrying out the necessary oversight action.

# AMC M.B.105(a) Mutual exchange of information

ED Decision 2015/029/R

One typical case where the mutual exchange of information is necessary is when an aircraft is transferred inside the EU according to M.A.903. When notified of such a transfer, a competent authority should inform the competent authority where the aircraft will be registered of any known problems with the aircraft being transferred. Furthermore, the competent authority where the aircraft will be registered should ensure that the former competent authority has been properly notified that the aircraft is leaving.



### SUBPART B — ACCOUNTABILITY

# M.B.201 Responsibilities

Regulation (EU) 2019/1383

The competent authorities as specified in point  $\underline{M.1}$  are responsible for conducting audits, inspections and investigations in order to verify that the requirements of this Annex are complied with.

# M.B.202 Information to the Agency

Regulation (EU) 2019/1383

- (a) The competent authority shall without undue delay notify the Agency in case of any significant problems with the implementation of Regulation (EU) 2018/1139.
- (b) The competent authority shall provide the Agency with safety-significant information stemming from the occurrence reports it has received pursuant to point M.A.202.



### SUBPART C — CONTINUING AIRWORTHINESS

# M.B.301 Aircraft maintenance programme

Regulation (EU) 2020/270

- (a) The competent authority shall verify that the AMP is in compliance with point M.A.302.
- (b) Unless stated otherwise in point (c) of point M.A.302, the AMP and its amendments shall be approved directly by the competent authority. The competent authority shall have access to all the data required by points (d), (e) and (f) of point M.A.302.
- (c) In the case of indirect approval as provided for in point M.A.302(c), the competent authority shall approve the AMP approval procedure of the CAO or CAMO through that organisation's exposition referred to in point CAO.A.025 of Annex Vd, point M.A.704 of this Annex, or point CAMO.A.300 of Annex Vc, as applicable.

### AMC M.B.301(a) Maintenance programme

ED Decision 2015/029/R

For the competent authority of registry to verify compliance with <u>M.A.302</u>, the auditing surveyor/inspector should have received training on maintenance programme development and control.

# AMC M.B.301(b) Maintenance programme

ED Decision 2016/011/R

- 1. When assessing aircraft maintenance programmes for approval, the competent authority should verify that the maintenance programme is acceptable for the continuing airworthiness of the specific aircraft listed and it is appropriate for the proposed operating environment and scheduled utilisation.
- 2. The competent authority should assess the contents taking into account the origins of the document, i.e. the manufacturer's recommended maintenance programme, an MRB report, the CAMO or operator's own experience or another approved programme.
- 3. A competent authority may elect to publish a proposed maintenance schedule for a piston engine aircraft type or a group of piston engine aircraft types below 2 730 kg maximum take-off mass (MTOM) or for a sailplane, powered sailplane or balloon type or for a group of sailplanes, powered sailplanes or balloon types. When owners/operators of the aircraft mentioned above elect to use a competent authority proposed maintenance schedule, all the out of phase manufacturer recommendations should be incorporated into the final maintenance programme in order for it to be approved.
- 4. A copy of the approved programme should be retained by the competent authority, unless the programme is approved by a CAMO.
- 5. The documentation issued by the competent authority to approve the aicraft maintenance programme may include details of who may issue certificates of release to service in a particular situation and may define which tasks are considered as complex maintenance tasks or limited pilot owner maintenance according to <a href="Appendix VIII to Part-M">Appendix VIII to Part-M</a>.
- 6. In the case of aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 or complex motor-powered aircraft, the development of the aircraft maintenance programme is dependent upon sufficient satisfactory in-service experience which has been

- properly processed. In general, the task being considered for escalation beyond the MRB limits should have been satisfactorily repeated at the existing frequency several times before being proposed for escalation. <u>Appendix I to AMC M.A.302 and M.B.301(b)</u> gives further information.
- 7. The competent authority may approve an incomplete maintenance programme at the start of operation of an aircraft or an operator, subject to limiting the approval of the maintenance programme to a period that does not exceed any required maintenance not yet approved.
- 8. If the competent authority is no longer satisfied that a safe operation can be maintained, the approval of a maintenance programme or part of it may be suspended or revoked. Events giving rise to such action include:
  - 8.1. An operator changing the utilisation of an aircraft;
  - 8.2. The owner or CAMO has failed to ensure that the programme reflects the maintenance needs of the aircraft such that safe operation can be assured.

# AMC M.B.301(c) Maintenance Programme

ED Decision 2020/002/R

- 1. Approval of an aircraft maintenance programme through a procedure established by a CAO/ CAMO should require the organisation to demonstrate to the competent authority that it has competence, procedures and record keeping provisions, which will enable the organisation to analyse aircraft reliability, TC holder's instructions, and other related operating and maintenance criteria.
- 2. According to the complexity of the aircraft and the nature of the operation, the maintenance programme procedures should contain reliability centred maintenance and condition monitored maintenance programme procedures and have procedures relating to the programme control which contain the following provisions:
  - (a) task escalation or adjustment,
  - (b) maintenance programme review,
  - (c) SB or Service Information assessment,
  - (d) component and structures in service performance review,
  - (e) maintenance programme revision,
  - (f) maintenance procedure effectiveness review and amendment,
  - (g) maintenance review board report (MRBR) or manufacturer maintenance planning document (MPD) review and assessment, as appropriate,
  - (h) AD review and assessment,
  - (i) owner/maintenance/CAO or CAMO liaison,
  - (j) training.
- 3. When the competent authority requests it, the organisation should make provision for the attendance of a representative of the competent authority at meetings held to consider maintenance implications arising from reviews of the above provisions.



### **M.B.302 Exemptions**

Regulation (EU) 2020/270

All exemptions granted in accordance with Article 71 of Regulation (EU) 2018/1139 shall be recorded and retained by the competent authority.

# M.B.303 Aircraft continuing airworthiness monitoring

Regulation (EU) 2015/1536

- (a) The competent authority shall develop a survey programme on a risk-based approach to monitor the airworthiness status of the fleet of aircraft on its register.
- (b) The survey programme shall include sample product surveys of aircraft and shall cover all aspects of airworthiness key risk elements.
- (c) The product survey shall sample the airworthiness standards achieved, on the basis of the applicable requirements, and identify any findings.
- (d) Any findings identified shall be categorised against the requirements of this Part and confirmed in writing to the person or organisation accountable according to M.A.201. The competent authority shall have a process in place to analyse findings for their safety significance.
- (e) The competent authority shall record all findings and closure actions.
- (f) If during aircraft surveys evidence is found showing non-compliance with this Part or with any other Part, the finding shall be dealt with as prescribed by the relevant Part.
- (g) If so required to ensure appropriate enforcement action, the competent authority shall exchange information on non-compliances identified in accordance with point (f) with other competent authorities.

# AMC1 M.B.303(a) Aircraft continuing airworthiness monitoring (ACAM)

ED Decision 2016/011/R

#### **ACAM SURVEY PROGRAMME — SCOPE**

- 1. The competent authority should establish a programme covering in-depth surveys and ramp surveys.
- 2. The competent authority's survey programme should select aircraft and/or operators depending on the number and complexity of aircraft on the national register, the diversity of aircraft types, local knowledge of the maintenance environment and operating conditions, airworthiness standards and past surveillance experience.
- 3. The programme should prioritise the operator/fleet/aircraft/key risk elements which are causing the greatest concern.
- 4. The survey programme should also include a certain percentage of unannounced ramp surveys.
- 5. The survey programme and changes thereto should be documented.



# AMC2 M.B.303(a) Aircraft continuing airworthiness monitoring (ACAM)

ED Decision 2020/002/R

#### **ACAM SURVEY PROGRAMME — CREDITING**

- 1. Where the ACAM survey can be linked to the oversight of an approved organisation, then credit can be granted in the monitoring process of that approved organisation.
- 2. The competent authority may take credit of aircraft airworthiness inspections qualifying for the ACAM programme when these inspections are performed in accordance with the provisions of Regulation (EU) 2018/1139 and its implementing and delegated acts.

# GM M.B.303(a) Aircraft continuing airworthiness monitoring (ACAM)

ED Decision 2020/002/R

#### **COMBINED SURVEYS**

In the interest of efficient use of competent authority resources, aircraft inspection procedures may be established covering the combined scope of various aircraft survey tasks performed by a competent authority, such as but not limited to:

- ACAM in-depth survey;
- airworthiness review;
- permit to fly physical inspection;
- Export Certificate of Airworthiness inspection;
- product survey in accordance with <u>M.B.704(c)</u>;
- product audit in accordance with Part-145, Part-CAO or <u>Part-M Subpart F</u>;
- review under supervision for airworthiness review staff authorisation, provided it covers the full scope of the physical survey in accordance with M.A.710(c); and
- ramp inspections performed in accordance with ARO.OPS<sup>1</sup> or ARO.RAMP<sup>2</sup>.

Depending on which type of survey is required, any actual survey performed may cover a subset of the combined scope.

# AMC1 M.B.303(b) Aircraft continuing airworthiness monitoring

ED Decision 2015/029/R

#### **SCOPE OF SURVEYS**

- 1. The competent authority should undertake sample product surveys of aircraft on its register to verify that:
  - (a) the condition of an aircraft as sampled is to a standard acceptable for the Certificate of Airworthiness/Airworthiness Review Certificate to remain in force,

<sup>&</sup>lt;sup>1</sup> Subpart OPS of Part-ARO 'Authority requirements for air operations' to Commission Regulation (EU) No 965/2012.

Subpart RAMP of Part-ARO 'Authority requirements for air operations' to Commission Regulation (EU) No 965/2012.

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- (b) the operator/owner's management of the airworthiness of the aircraft is effective,
- (c) the approvals and licenses granted to organisations and persons continue to be applied in a consistent manner to achieve the required standards.
  - A physical inspection of the aircraft is necessary during each ACAM survey (ramp or indepth).
- 2. Sample product surveys of aircraft include:
  - (a) in-depth surveys carried out during extensive maintenance that fully encompass selected aspects of an aircraft's airworthiness,
  - (b) ramp surveys carried out during aircraft operations to monitor the apparent condition of an aircraft's airworthiness.
- 3. When performing a ramp survey, the inspector(s) should make all possible efforts to avoid an unreasonable delay of the aircraft inspected.
- 4. The further information on 'KEY RISK ELEMENTS' can be found in <u>Appendix III to GM1 M.B.303(b)</u>.

# AMC2 M.B.303(b) Aircraft continuing airworthiness monitoring

ED Decision 2015/029/R

#### **IN-DEPTH SURVEY**

- 1. An ACAM in-depth survey is a sample inspection of the key risk elements (KREs) and should be performed during scheduled/extensive maintenance. <u>Appendix III to GM1 M.B.303(b)</u> provides guidance on KREs that can be used for planning and/or analysis of the inspections.
- 2. The survey should be a 'deep cut' through the elements or systems selected.
- 3. The record of an ACAM inspection should identify which KREs were inspected.

# AMC3 M.B.303(b) Aircraft continuing airworthiness monitoring

ED Decision 2015/029/R

#### **KEY RISK ELEMENTS**

- 1. The following KREs should be used for aircraft continuing airworthiness monitoring:
  - (a) Type design and changes to type design
  - (b) Airworthiness limitations
  - (c) Airworthiness Directives
  - (d) Aircraft documents
  - (e) Flight Manual
  - (f) Mass & Balance
  - (g) Markings & placards
  - (h) Operational requirements
  - (i) Defect management
  - (j) Aircraft Maintenance Programme
  - (k) Component control



- (I) Repairs
- (m) Records
- 2. These KREs and their detailed components should be adapted to the complexity of the aircraft type being surveyed by retaining only those items that are applicable and relevant for the particular aircraft type.
- 3. The further information regarding 'KEY RISK ELEMENTS' can be found in <u>Appendix III to GM1</u> <u>M.B.303(b)</u>.

# GM1 M.B.303(b) Aircraft continuing airworthiness monitoring (ACAM)

ED Decision 2020/002/R

#### **KEY RISK ELEMENTS**

The KREs define the scope of continuing airworthiness. The list of KREs is intended to provide the basis for planning and control of the ACAM survey programme. It will ensure that the programme covers all aspects of continuing airworthiness. While it is not required to cover all KREs during a given inspection, the ACAM survey programme needs to ensure that there is no omission, i.e. certain KRE are never inspected.

The further information on 'KEY RISK ELEMENTS' can be found in Appendix III to GM1 M.B.303(b).

# AMC M.B.303(d) Aircraft continuing airworthiness monitoring (ACAM)

ED Decision 2016/011/R

### **FINDINGS ANALYSIS**

- 1. The process should analyse the findings, or combination thereof, in order to identify:
  - (a) the root causes and their recurrence;
  - (b) the potential impact on flight safety of the individual aircraft or aircraft fleet on the national register, including hazard identification and risk mitigation; and
  - (c) further necessary actions at the level of the organisation(s) or individual(s) interacting with the continuing airworthiness of the aircraft or aircraft fleet.
- 2. The outcome of the analysis should be used for the further adjustment of the ACAM programme as well as for the purpose of M.B.303(e), (f) and (g).
- 3. The purpose of this process is not to analyse individual findings, but to address systemic issues or issues that become apparent at individual, corporate or aggregate level.

# M.B.304 Revocation and suspension

Regulation (EU) 2015/1536

The competent authority shall:

- (a) suspend an airworthiness review certificate on reasonable grounds in the case of potential safety threat, or;
- (b) suspend or revoke an airworthiness review certificate pursuant to M.B.903(1).

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# M.B.305 Aircraft technical log system

Regulation (EU) 2020/270

- (a) The competent authority shall approve the initial aircraft technical log system required by point M.A.306.
- (b) To enable the organisation to implement changes to the aircraft technical log system without prior competent authority approval, the competent authority shall approve the relevant procedure referred to in point <a href="Mailto:CAMO.A.300(c">CAMO.A.300(c</a>) of Annex Vc, or point <a href="Mailto:M.A.704(c">M.A.704(c</a>) of this Annex or point <a href="CAO.A.025(c">CAO.A.025(c</a>) of Annex Vd.

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### **SUBPART D — MAINTENANCE STANDARDS**

Regulation (EU) No 1321/2014

(to be developed as appropriate)

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## **SUBPART E — COMPONENTS**

Regulation (EU) No 1321/2014

(to be developed as appropriate)



### SUBPART F — MAINTENANCE ORGANISATION

# M.B.601 Application

Regulation (EU) No 1321/2014

Where maintenance facilities are located in more than one Member State the investigation and continued oversight of the approval shall be carried out in conjunction with the competent authorities designated by the Member States in whose territory the other maintenance facilities are located.

### M.B.602 Initial Approval

Regulation (EU) 2019/1383

- (a) Provided the requirements of points M.A.606(a) and (b) are complied with, the competent authority shall formally indicate its acceptance of the M.A.606(a) and (b) personnel to the applicant in writing.
- (b) The competent authority shall establish that the procedures specified in the maintenance organisation manual comply with Subpart F of this Annex, and shall ensure that the accountable manager signs the commitment statement.
- (c) The competent authority shall verify that the organisation is in compliance with the requirements laid down in Subpart F of this Annex.
- (d) A meeting with the accountable manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the commitment of the organisation to compliance with the procedures specified in the manual.
- (e) All findings shall be confirmed in writing to the applicant organisation.
- (f) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (g) For initial approval all findings shall be corrected by the organisation and closed by the competent authority before the approval can be issued.

# AMC M.B.602(a) Initial approval

ED Decision 2015/029/R

- 1. 'Formally indicate in writing' means that an <u>EASA Form 4 (Appendix X to AMC M.B.602(a) and AMC M.B.702(a)</u>) should be used for this activity. With the exception of the accountable manager, an <u>EASA Form 4</u> should be completed for each person nominated to hold a position required by <u>M.A.606(b)</u>.
- 2. In the case of the accountable manager approval of the maintenance organisation manual containing the accountable manager's signed commitment statement constitutes formal acceptance.

# AMC M.B.602(b) Initial approval

ED Decision 2015/029/R

The competent authority should indicate approval of the maintenance organisation manual in writing.



### AMC M.B.602(c) Initial approval

ED Decision 2015/029/R

- 1. The competent authority should determine by whom, and how the audit shall be conducted. For example, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single man audits are most appropriate for the particular situation.
- 2. The audit may be carried out on a product line type basis. For example, in the case of an organisation with Socata TB20 and Piper PA28 ratings, the audit is concentrated on one type only for a full compliance check. Dependent upon the result, the second type may only require a sample check that should at least cover the activities identified as weak for the first type.
- 3. The competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the organisation. The reason for being accompanied is to ensure the organisation is fully aware of any findings during the audit.
- 4. The auditing surveyor should inform the senior technical member of the organisation at the end of the audit visit on all findings made during the audit.

# AMC M.B.602(e) Initial approval

ED Decision 2015/029/R

- 1. Findings should be recorded on an audit report form with a provisional categorisation as a level 1 or 2. Subsequent to the audit visit that identified the particular findings, the competent authority should review the provisional finding levels, adjusting them if necessary and change the categorisation from 'provisional' to 'confirmed'.
- 2. All findings should be confirmed in writing to the applicant organisation within 2 weeks of the audit visit.
- 3. There may be occasions when the competent authority finds situations in the applicant's organisation on which it is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time and the fact that the situation will be reviewed within the competent authority before a decision is made. If the review concludes that there is no finding then a verbal confirmation to the organisation will suffice.

# AMC M.B.602(f) Initial approval

ED Decision 2015/029/R

- 1. The audit report should be made on an <u>EASA Form 6F</u> (see appendix VI).
- 2. A quality review of the <u>EASA Form 6F</u> audit report should be carried out by a competent independent person nominated by the competent authority. The review should take into account the relevant paragraphs of <u>M.A. Subpart F</u>, the categorisation of finding levels and the closure action taken. Satisfactory review of the audit form should be indicated by a signature on the <u>EASA Form 6F</u>.

# AMC M.B.602(g) Initial approval

ED Decision 2015/029/F

The audit reports should include the date each finding was cleared together with reference to the competent authority report or letter that confirmed the clearance.



## M.B.603 Issue of approval

Regulation (EU) 2019/1383

- (a) The competent authority shall issue to the applicant an EASA Form 3 approval certificate (Appendix V to this Annex), which includes the extent of the approval, when the maintenance organisation is in compliance with the applicable points of this Annex.
- (b) The competent authority shall indicate the conditions attached to the approval on the EASA Form 3 approval certificate.
- (c) The reference number shall be included on the EASA Form 3 approval certificate in a manner specified by the Agency.

# AMC M.B.603(a) Issue of approval

ED Decision 2015/029/R

- 1. For approvals involving more than one competent authority, the approval should be granted in conjunction with the competent authorities of the Member States in whose territories the other maintenance organisation facilities are located. For practical reasons the initial approval should be granted on the basis of a joint audit visit by the approving competent authority and competent authorities of the Member States in whose territories the other maintenance organisation facilities are located. Audits related to the continuation of the approval should be delegated to the competent authorities of the Member States in whose territories the other maintenance organisation facilities are located. The resulting audit form and recommendation should then be submitted to the approving competent authority.
- 2. The approval should be based upon the organisational capability relative to M.A. Subpart F compliance and not limited by reference to individual EASA certificated products.
  - For example, if the organisation is capable of maintaining within the limitation of M.A. Subpart F the Cessna 100 series aircraft the approval schedule should state A2 Cessna 100 series and not Cessna 172RG which is a particular designator for one of many Cessna 100 series.

### 3. Special case for ELA1 aircraft:

In order to promote standardisation, for this category of aircraft the following approach is recommended:

- Possible ratings to be endorsed in EASA Form 3:
  - ELA1 sailplanes;
  - ELA1 powered sailplanes and ELA1 aeroplanes;
  - ELA1 balloons;
  - ELA1 airships.
- Before endorsing any of those ratings (for example, ELA1 sailplanes) in EASA Form 3, the
  competent authority should audit that the organisation is capable of maintaining at least
  one aircraft type (for example, one type of sailplanes within the ELA1 category), including
  the availability of the necessary facilities, equipment, tooling, material, maintenance
  data, and certifying staff.
- It is acceptable that the detailed scope of work in the Maintenance Organisation Manual (MOM) contains the same ratings endorsed in EASA Form 3 (for example, ELA1 sailplanes), without a need to further limit them. However, the maintenance organisation



will only be able to maintain a certain aircraft type when all the necessary facilities, equipment, tooling, material, maintenance data, and certifying staff are available.

# AMC M.B.603(c) Issue of approval

ED Decision 2015/029/R

The numeric sequence of the approval reference should be unique to the particular approved maintenance organisation.

## M.B.604 Continuing oversight

Regulation (EU) 2019/1383

- (a) The competent authority shall keep and update a programme listing, for each maintenance organisation approved in accordance with Subpart F of Section B of this Annex under its supervision, the dates when audit visits are due and when such visits were carried out.
- (b) Each organisation shall be completely audited at periods not exceeding 24 months.
- (c) All findings shall be confirmed in writing to the applicant organisation.
- (d) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (e) A meeting with the accountable manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

# AMC M.B.604(b) Continuing oversight

ED Decision 2020/002/R

- 1. Where the competent authority has decided that a series of audit visits are necessary to arrive at a complete audit of an approved maintenance organisation, the program should indicate which aspects of the approval will be covered on each visit.
- 2. It is recommended that part of an audit concentrates on the organisations internal self monitoring reports produced by the organisational review to determine if the organisation is identifying and correcting its problems.
- 3. At the successful conclusion of the audit(s) including verification of the manual, an audit report form should be completed by the auditing surveyor including all recorded findings, closure actions and recommendation. An <u>EASA Form 6F</u> should be used for this activity.
- 4. Credit may be claimed by the competent authority surveyor(s) for specific item audits completed during the preceding 23-month period subject to four conditions:
  - (a) the specific item audit should be the same as that required by M.A. Subpart F latest amendment, and
  - (b) there should be satisfactory evidence on record that such specific item audits were carried out and that all corrective actions have been taken, and
  - (c) the competent authority surveyor(s) should be satisfied that there is no reason to believe standards have deteriorated in respect of those specific item audits being granted a back credit;
  - (d) the specific item audit being granted a back credit should be audited not later than 24 months after the last audit of the item.

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5. When performing the oversight of an organisation that holds more than one approval pursuant to this Regulation, the competent authority should arrange the audits to cover both approvals avoiding a duplicated visit of a particular area.

# M.B.605 Findings

Regulation (EU) 2019/1383

- (a) When during audits or by other means evidence is found showing non-compliance with a requirement laid down in this Annex or Annex Vb (Part-ML), the competent authority shall take the following actions:
  - For level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organisation approval, until successful corrective action has been taken by the organisation.
  - 2. For level 2 findings, the competent authority shall grant a corrective action period appropriate to the nature of the finding that shall not be more than three months. In certain circumstances, at the end of this first period and subject to the nature of the finding, the competent authority can extend the three month period subject to a satisfactory corrective action plan.
- (b) Action shall be taken by the competent authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the competent authority.

### AMC M.B.605(a)(1) Findings

ED Decision 2015/029/R

For a level 1 finding it may be necessary for the competent authority to ensure that further maintenance and re-certification of all affected products is accomplished, dependent upon the nature of the finding.

# M.B.606 Changes

Regulation (EU) 2019/1383

- (a) The competent authority shall comply with the applicable elements of the initial approval for any change to the organisation notified in accordance with point M.A.617.
- (b) The competent authority may prescribe the conditions under which the approved maintenance organisation may operate during such changes, unless it determines that the approval should be suspended due to the nature or the extent of the changes.
- (c) For any change to the maintenance organisation manual:
  - in the case of direct approval of changes in accordance with point (b) of point M.A.604, the competent authority shall verify that the procedures specified in the manual are in compliance with this Annex before formally notifying the approved organisation of the approval;
  - 2. in the case of an indirect approval of changes in accordance with point (c) of point M.A.604, the competent authority shall ensure that:
    - (i) the changes remain minor;

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(ii) it has adequate control over the approval of the changes to ensure they remain in compliance with the requirements of this Annex.

## **AMC M.B.606 Changes**

ED Decision 2015/029/R

- 1. Changes in nominated persons.
  - The competent authority should have adequate control over any changes to personnel specified in M.A.606(a) and (b). Such changes will require an amendment to the manual.
- 2. It is recommended that a simple manual status sheet is maintained which contains information on when an amendment was received by the competent authority and when it was approved.
- 3. The competent authority should define the minor amendments to the manual which may be incorporated through indirect approval. In this case a procedure should be stated in the amendment section of the maintenance organisation manual.
  - Changes notified in accordance with M.A.617 are not considered minor.
  - For all cases other than minor, the applicable part(s) of the <u>EASA Form 6F</u> should be used for the change.
- 4. The approved maintenance organisation should submit each manual amendment to the competent authority whether it be an amendment for competent authority approval or an indirectly approved amendment. Where the amendment requires competent authority approval, the competent authority when satisfied, should indicate its approval in writing. Where the amendment has been submitted under the indirect approval procedure the competent authority should acknowledge receipt in writing.

## M.B.607 Revocation, suspension and limitation of an approval

Regulation (EU) No 1321/2014

The competent authority shall:

- (a) suspend an approval on reasonable grounds in the case of potential safety threat, or;
- (b) suspend, revoke or limit an approval pursuant to point <u>M.B.605</u>.



## SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

## M.B.701 Application

Regulation (EU) 2015/1536

- (a) For licenced air carriers in accordance with Regulation (EC) No 1008/2008 the competent authority shall receive for approval with the initial application for the air operator's certificate and where applicable any variation applied for and for each aircraft type to be operated:
  - 1. the continuing airworthiness management exposition;
  - 2. the operator's aircraft maintenance programmes;
  - 3. the aircraft technical log;
  - 4. where appropriate the technical specification of the maintenance contracts between the CAMO and <u>Part-145</u> approved maintenance organisation.
- (b) Where facilities are located in more than one Member State the investigation and continued oversight of the approval shall be carried out in conjunction with the competent authorities designated by the Member States in whose territory the other facilities are located.

## AMC M.B.701(a) Application

ED Decision 2016/011/R

- 1. The documents listed in M.B.701(a) points (1), (2) and (3) may require approval. Draft documents should be submitted at the earliest opportunity so that assessment of the application can begin. Grant or change cannot be effected until the competent authority has received the completed documents. This information is required to enable the competent authority to conduct its assessment in order to determine the volume of oversight work necessary and the locations at which it will be accomplished.
- 2. If considered appropriate for the assessment, the competent authority may request that at the time of initial application or change of the approval schedule the CAMO applicant provides a copy of the technical specifications of the contracts with <a href="Part-145">Part-145</a> organisations to demonstrate that arrangements are in place for all base and scheduled line maintenance for an appropriate period of time.

## M.B.702 Initial approval

Regulation (EU) No 1321/2014

- (a) Provided the requirements of points M.A.706(a), (c), (d) and M.A.707 are complied with, the competent authority shall formally indicate its acceptance of the M.A.706(a), (c), (d) and M.A.707 personnel to the applicant in writing.
- (b) The competent authority shall establish that the procedures specified in the continuing airworthiness management exposition comply with <u>Section A, Subpart G</u> of this <u>Annex (Part-M)</u> and ensure the accountable manager signs the commitment statement.
- (c) The competent authority shall verify the organisation's compliance with requirements laid down in <u>Section A, Subpart G</u> of this <u>Annex (Part-M)</u>.



- (d) A meeting with the accountable manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the exposition commitment of the organisation to compliance with the procedures specified in the continuing airworthiness management exposition.
- (e) All findings shall be confirmed in writing to the applicant organisation.
- (f) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (g) For initial approval all findings shall be corrected by the organisation and closed by the competent authority before the approval can be issued.

## AMC M.B.702(a) Initial approval

ED Decision 2015/029/R

- 1. 'Formally indicate in writing' means that an <u>EASA Form 4 (Appendix X to AMC M.B.602(a) and AMC M.B.702(a)</u>) should be used for this activity. With the exception of the accountable manager, an <u>EASA Form 4</u> should be completed for each person nominated to hold a position required by <u>M.A.706(c)</u>, (d) and <u>M.A.707</u>.
- 2. In the case of the accountable manager, approval of the continuing airworthiness management exposition containing the accountable manager's signed commitment statement constitutes formal acceptance, once the authority has held a meeting with the accountable manager and is satisfied with its results.

## AMC M.B.702(b) Initial approval

ED Decision 2016/011/R

- 1. The competent authority should indicate approval of the continuing airworthiness management exposition in writing.
- 2. Contracts for sub-contracting continuing airworthiness management tasks by CAMOs should be included in the continuing airworthiness organisation exposition. The competent authorities should verify that the standards set forth in <a href="MICM.A.711(a)(3)">AMC M.A.711(a)(3)</a> have been met when approving the exposition.
- 3. The competent authority while investigating the acceptability of the proposed subcontracted continuing airworthiness management tasks arrangements will take into account, in the subcontracted organisation, all other such contracts that are in place irrespective of state of registry in terms of sufficiency of resources, expertise, management structure, facilities and liaison between the CAMO, the subcontracted organisation and, where applicable, the contracted maintenance organisation(s).

## AMC M.B.702(c) Initial approval

ED Decision 2015/029/R

1. The competent authority should determine by whom, and how the audit shall be conducted. For example, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single man audits are most appropriate for the particular situation.



- 2. The audit may be carried out on a product line type basis. For example, in the case of an organisation with Airbus A320 and Airbus A310 ratings, the audit is concentrated on one type only for a full compliance check. Dependent upon the result, the second type may only require a sample check that should at least cover the activities identified as weak for the first type.
- 3. When determining the scope of the audit and which activities of the organisation will be assessed during the audit, the privileges of the approved organisation should be taken into account, e.g. approval to carry out airworthiness reviews.
- 4. The competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the organisation. Normally this is the quality manager. The reason for being accompanied is to ensure the organisation is fully aware of any findings during the audit.
- 5. The auditing surveyor should inform the senior technical member of the organisation at the end of the audit visit on all findings made during the audit.

## AMC M.B.702(e) Initial approval

ED Decision 2015/029/R

- 1. Findings should be recorded on an audit report form with a provisional categorisation as a level 1 or 2. Subsequent to the audit visit that identified the particular findings, the competent authority should review the provisional finding levels, adjusting them if necessary and change the categorisation from 'provisional' to 'confirmed'.
- 2. All findings should be confirmed in writing to the applicant organisation within 2 weeks of the audit visit.
- 3. There may be occasions when the competent authority finds situations in the applicant's organisation on which it is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time and the fact that the situation will be reviewed within the competent authority before a decision is made. If the review concludes that there is no finding then a verbal confirmation to the organisation will suffice.

## AMC M.B.702(f) Initial approval

ED Decision 2015/029/R

- 1. The audit report form should be the <u>EASA Form 13</u> (Appendix VII).
- 2. A quality review of the <u>EASA Form 13</u> audit report should be carried out by a competent independent person nominated by the competent authority. The review should take into account the relevant paragraphs of <u>M.A. Subpart G</u>, the categorisation of finding levels and the closure action taken. Satisfactory review of the audit form should be indicated by a signature on the <u>EASA Form 13</u>.

## AMC M.B.702(g) Initial approval

ED Decision 2015/029/R

The audit reports should include the date each finding was cleared together with reference to the competent authority report or letter that confirmed the clearance.



## M.B.703 Issue of approval

Regulation (EU) 2020/270

- (a) The competent authority shall issue to the applicant an EASA Form 14-MG approval certificate (Appendix VI to this Annex) which includes the extent of approval, when the continuing airworthiness management organisation is in compliance with Section A, Subpart G of this Annex (Part-M).
- (b) The competent authority shall indicate the validity of the approval on the EASA Form 14-MG approval certificate.
- (c) The reference number shall be included on the Form 14-MG approval certificate in a manner specified by the Agency.
- (d) In the case of licenced air carriers in accordance with Regulation (EC) No 1008/2008, the information contained on an EASA Form 14-MG will be included on the air operator's certificate.

## AMC M.B.703 Issue of approval

ED Decision 2015/029/R

The table shown for the Approval Schedule in <u>EASA Form 14</u> includes a field designated as 'Aircraft type/series/group'

The intention is to give maximum flexibility to the competent authority to customise the approval to a particular organisation.

Possible alternatives to be included in this field are the following:

- A specific type designation that is part of a type certificate, such as Airbus 340-211 or Cessna 172R.
- A type rating (or series) as listed in <u>Part-66 Appendix I to AMC</u>, which may be further subdivided, such as Boeing 737-600/700/800, Boeing 737-600, Cessna 172 Series.
- An aircraft group such as, for example, 'all sailplanes and powered sailplanes' or 'Cessna single piston engined aircraft' or 'Group 3 aircraft' (as defined in 66.A.5) or 'aircraft below 2 730 kg MTOM'.

Reference to the engine type installed in the aircraft may or may not be included, as necessary.

It is important to note that the scope of work defined in EASA Form 14 is further limited to the one defined in the Continuing Airworthiness Management Exposition (CAME). It is this scope of work in the CAME which ultimately defines the approval of the organisation. As a consequence, it is possible for a competent authority to endorse in EASA Form 14, for example, a scope of work for Group 3 aircraft while the detailed scope of work defined in the CAME does not include all Group 3 aircraft.

Nevertheless, in all cases, the competent authority should be satisfied that the organisation has the capability to manage the types/groups/series endorsed in the <u>EASA Form 14</u>.

Since the activities linked to continuing airworthiness management are mainly process-oriented rather than facility/tooling-oriented, changes to the detailed scope of work defined in the CAME (either directly or through a capability list), within the limits already included in <u>EASA Form 14</u>, may be considered as not affecting the approval and not subject to <u>M.A.713</u>. As a consequence, for these changes the competent authority may allow the use by the CAMO of the indirect approval procedure defined in <u>M.A.704(c)</u>.

In the example mentioned above, before endorsing the Group 3 in <u>EASA Form 14</u> for the first time, the competent authority should make sure that the organisation is capable of managing this category

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of aircraft as a whole. In particular, the competent authority should ensure that Baseline/Generic Maintenance Programmes (see M.A.709) or individual maintenance programmes (for contracted customers) are available for all the aircraft which are intended to be initially included in the scope of work detailed in the CAME. Later on, if changes need to be introduced in the detailed scope of work detailed in the CAME to include new aircraft types (within Group 3), this may be done by the CAMO through the use of the indirect approval procedure.

Since, as mentioned above, the competent authority should make sure that the organisation is capable of managing the requested category as a whole, it is not reasonable to grant a full Group 3 approval based on an intended scope of work which is limited to, for example, a Cessna 172 aircraft. However, it may be reasonable to grant such full Group 3 approval, after showing appropriate capability, for an intended scope of work covering several aircraft types or series of different complexity and which are representative of the full Group 3.

#### Special case for ELA1 aircraft:

In order to promote standardisation, for this category of aircraft the following approach is recommended:

- Possible ratings to be endorsed in EASA Form 14:
  - ELA1 sailplanes;
  - ELA1 powered sailplanes and ELA1 aeroplanes;
  - ELA1 balloons;
  - ELA1 airships.
- Before endorsing any of those ratings (for example, ELA1 sailplanes) in <u>EASA Form 14</u>, the competent authority should audit that the organisation is capable of managing at least one aircraft type (for example, one type of sailplanes within the ELA1 category), including the availability of the necessary facilities, data, maintenance programmes, and staff.
- It is acceptable that the detailed scope of work in the CAME contains the same ratings endorsed in <u>EASA Form 14</u> (for example, ELA1 sailplanes), without a need to further limit them. However, the CAMO will only be able to manage a certain aircraft type when all the necessary facilities, data, maintenance programmes and staff are available.

## AMC M.B.703(a) Issue of approval

ED Decision 2015/029/R

For approvals involving more than one competent authority, the approval should be granted in conjunction with the competent authority of the Member States in whose territories the other continuing airworthiness management organisation facilities are located. For practical reasons the initial approval should be granted on the basis of a joint audit visit by the approving competent authority and competent authority of the Member States in whose territories the other continuing airworthiness management organisation facilities are located. Audits related to the renewal of the approval should be delegated to the competent authority of the Member States in whose territories the other continuing airworthiness management organisation facilities are located. The resulting audit form and recommendation should then be submitted to the approving competent authority.



## AMC M.B.703(c) Issue of approval

ED Decision 2015/029/R

The numeric sequence should be unique to the particular CAMO.

## M.B.704 Continuing oversight

Regulation (EU) No 1321/2014

- (a) The competent authority shall keep and update a program listing, for each continuing airworthiness organisation approved under <u>Section A, Subpart G</u> of this <u>Annex (Part-M)</u> under its supervision, the dates when audit visits are due and when such visits were carried out.
- (b) Each organisation shall be completely audited at periods not exceeding 24 months.
- (c) A relevant sample of the aircraft managed by the organisation approved under Section B, Subpart G of this Annex (Part-M) shall be surveyed in every 24 month period. The size of the sample will be decided by the competent authority based on the result of prior audits and earlier product surveys.
- (d) All findings shall be confirmed in writing to the applicant organisation.
- (e) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (f) A meeting with the accountable manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

## AMC M.B.704(b) Continuing oversight

ED Decision 2020/002/R

- 1. Where the competent authority has decided that a series of audit visits are necessary to arrive at a complete audit of an approved continuing airworthiness management organisation, the program should indicate which aspects of the approval will be covered on each visit.
- 2. It is recommended that part of an audit concentrates on two ongoing aspects of the M.A. Subpart G approval, namely the organisations internal self monitoring quality reports produced by the quality monitoring personnel to determine if the organisation is identifying and correcting its problems and secondly the number of concessions granted by the quality manager.
- 3. At the successful conclusion of the audit(s) including verification of the exposition, an audit report form should be completed by the auditing surveyor including all recorded findings, closure actions and recommendation. An <u>EASA Form 13</u> should be used for this activity.
- 4. Credit may be claimed by the competent authority surveyor(s) for specific item audits completed during the preceding 23 month period subject to four conditions:
  - (a) the specific item audit should be the same as that required by M.A. Subpart G latest amendment, and
  - (b) there should be satisfactory evidence on record that such specific item audits were carried out and that all corrective actions have been taken, and
  - (c) the competent authority surveyor(s) should be satisfied that there is no reason to believe standards have deteriorated in respect of those specific item audits being granted a back credit;



- (d) the specific item audit being granted a back credit should be audited not later than 24 months after the last audit of the item.
- 5. When a CAMO sub-contracts continuing airworthiness management tasks all sub-contracted organisations should also be audited by the competent authority at periods not exceeding 24 months (credits per paragraph 4 above are permitted) to ensure they fully comply with M.A. Subpart G. For these audits, the competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the CAMO. All findings should be sent to and corrected by the CAMO.
- 6. When performing the oversight of organisations that hold various approvals, the competent authority should arrange the audits to cover all approvals avoiding a duplicated visit of a particular area.

## M.B.705 Findings

Regulation (EU) 2020/270

- (a) When during audits or by other means, evidence is found showing non-compliance to a requirement laid down in this Annex (Part-M) or Annex Vb (Part-ML), as applicable, the competent authority shall take the following actions:
  - For level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the continuing airworthiness management organisation approval, until successful corrective action has been taken by the organisation.
  - 2. For level 2 findings, the competent authority shall grant a corrective action period appropriate to the nature of the finding that shall not be more than three months. In certain circumstances, at the end of this first period, and subject to the nature of the finding the competent authority can extend the three month period subject to a satisfactory corrective action plan.
- (b) Action shall be taken by the competent authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the competent authority.

## AMC M.B.705(a)(1) Findings

ED Decision 2016/011/R

For a level 1 finding the competent authority should inform the owner/operator and the competent authority of any potentially affected aircraft in order that corrective action can be taken to ensure possible unsafe conditions on these aircraft are corrected before further flight.

Furthermore, a level 1 finding could lead to a non-compliance to be found on an aircraft as specified in M.B.303(f).

## M.B.706 Changes

Regulation (EU) 2020/270

- (a) The competent authority shall comply with the applicable elements of the initial approval for any change to the organisation notified in accordance with point M.A.713.
- (b) The competent authority may prescribe the conditions under which the approved continuing airworthiness management organisation may operate during such changes unless it determines that the approval should be suspended due to the nature or the extent of the changes.



- (c) For any change to the continuing airworthiness management exposition:
  - 1. In the case of direct approval of changes in accordance with point M.A.704(b) of this Annex (Part-M), the competent authority shall verify that the procedures specified in the exposition are in compliance with this Annex (Part-M) or Annex Vb (Part-ML), as applicable, before formally notifying the approved organisation of the approval.
  - 2. In the case an indirect approval procedure is used for the approval of the changes in accordance with point M.A.704(c) of this Annex (Part-M), the competent authority shall ensure all of the following:
    - (i) that the changes remain minor;
    - (ii) that it has an adequate control over the approval of the changes to ensure they remain in compliance with the requirements of this Annex (Part-M) or Annex Vb (Part-ML), as applicable.

## AMC M.B.706 Changes

ED Decision 2016/011/R

- 1. Changes in nominated persons. The competent authority should have adequate control over any changes to the personnel specified in M.A.706(a), (c), (d) and (i). Such changes will require an amendment to the exposition.
- 2. It is recommended that a simple exposition status sheet is maintained which contains information on when an amendment was received by the competent authority and when it was approved.
- 3. The competent authority should define the minor amendments to the exposition which may be incorporated through indirect approval. In this case a procedure should be stated in the amendment section of the approved continuing airworthiness management exposition.
- 4. Changes notified in accordance with M.A.713 are not considered minor. For all cases other than minor, the applicable part(s) of the EASA Form 13 should be used for the change.
- 5. The CAMO should submit each exposition amendment to the competent authority whether it be an amendment for competent authority approval or an indirectly approved amendment. Where the amendment requires competent authority approval, the competent authority when satisfied, should indicate its approval in writing. Where the amendment has been submitted under the indirect approval procedure the competent authority should acknowledge receipt in writing.

## M.B.707 Revocation, suspension and limitation of an approval

Regulation (EU) No 1321/2014

The competent authority shall:

- (a) suspend an approval on reasonable grounds in the case of potential safety threat, or;
- (b) suspend, revoke or limit an approval pursuant to point M.B.705.

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## SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS

Regulation (EU) No 1321/2014

(to be developed as appropriate)



### SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE

## M.B.901 Assessment of recommendations

Regulation (EU) 2019/1383

Upon receipt of an application and associated airworthiness review certificate recommendation in accordance with point M.A.901:

- 1. Appropriately qualified personnel of the competent authority shall verify that the compliance statement contained in the recommendation demonstrates that a complete airworthiness review in accordance with point M.A.901 has been carried out.
- 2. The competent authority shall investigate and may request further information to support the assessment of the recommendation.

### **AMC M.B.901 Assessment of recommendations**

ED Decision 2021/009/R

- 1. The result of the verification and the investigation of a recommendation should be sent to the applicant within 30 days. If corrective action has been requested before the issuance of an airworthiness review certificate, the competent authority may decide a further period for the assessment of the requested corrective action.
- 2. The verification of the compliance statement required by <u>M.B.901</u> does not mean repeating the airworthiness review itself. However, the competent authority should verify that the CAMO/CAO has carried out a complete and accurate assessment of the airworthiness of the aircraft.
- 3. Depending on the content of the recommendation, the history of the particular aircraft, and the knowledge of the CAMO/CAO making the recommendation in terms of experience, number and correction of findings and previous recommendations the extent of the investigation will vary. Therefore, whenever possible the person carrying out the investigation should be involved in the oversight of the CAMO/CAO making the recommendation.
- 4. In some cases, the inspector may decide that it is necessary to organise:
  - a physical survey of the aircraft, or
  - a full or partial airworthiness review.

In this case, the inspector should inform the CAMO/CAO making the recommendation with sufficient notice so that it may organise itself according to M.A.901(i).

Furthermore, this part of the investigation should be carried out by appropriate airworthiness review staff in accordance with M.B.902(b).

5. Only when satisfied that the aircraft is airworthy, should the inspector issue an airworthiness review certificate.



## M.B.902 Airworthiness review by the competent authority

Regulation (EU) 2019/1383

- (a) When the competent authority carries out the airworthiness review and issues the airworthiness review certificate (Appendix III (<u>EASA Form 15a</u>) to this Annex), the competent authority shall carry out an airworthiness review in accordance with point <u>M.A.901</u>.
- (b) The competent authority shall have appropriate airworthiness review staff to carry out the airworthiness reviews.
  - 1. For all aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, and for aircraft above 2 730 kg MTOM, such staff shall have:
    - (i) acquired at least 5 years of experience in continuing airworthiness;
    - (ii) acquired an appropriate licence in compliance with Annex III (Part-66), or a nationally recognised maintenance personnel qualification appropriate to the aircraft category (when Article 5(6) refers to national rules), or an aeronautical degree or equivalent;
    - (iii) received formal aeronautical maintenance training;
    - (iv) held a position with appropriate responsibilities.

Notwithstanding points (a) to (d), the requirement laid down in point (b)(1)(b) of point  $\underline{\text{M.B.902}}$  may be replaced with 5 years of experience in continuing airworthiness additional to those already required by point (b)(1)(a) of point  $\underline{\text{M.B.902}}$ .

- 2. For aircraft not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, and for aircraft of 2 730 kg MTOM and below, such staff shall have:
  - (i) at least 3 years of experience in continuing airworthiness;
  - (ii) acquired an appropriate licence in compliance with Annex III (Part-66), or a nationally recognised maintenance personnel qualification appropriate to the aircraft category when Article 5(6) refers to national rules, or an aeronautical degree or equivalent;
  - (iii) received appropriate aeronautical maintenance training;
  - (iv) held a position with appropriate responsibilities.

Notwithstanding points (a) to (d), the requirement laid down in point (b)(2)(b) of point  $\underline{\text{M.B.902}}$  may be replaced by 4 years of experience in continuing airworthiness additional to those already required by point (b)(2)(a) of point M.B.902.

- (c) The competent authority shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training.
- (d) The competent authority shall have access to the applicable data as specified in points <u>M.A.305</u>, <u>M.A.306</u> and <u>M.A.401</u> in the performance of the airworthiness review.
- (e) The staff that carries out the airworthiness review shall issue a <u>Form 15a</u> after satisfactory completion of the airworthiness review.



## AMC M.B.902(b) Airworthiness review by the competent authority

ED Decision 2020/002/R

- 1. A person qualified in accordance with <u>AMC1 M.B.102(c)</u> subparagraph 1.5 should be considered as holding the equivalent to an aeronautical degree.
- 2. 'experience in continuing airworthiness' means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management (engineering) and/or surveillance of such tasks.
- 3. An appropriate licence in compliance with <a href="Annex III (Part-66">Annex III (Part-66</a>) is a category B or C licence in the subcategory of the aircraft reviewed. It is not necessary to satisfy the recent experience requirements of Part 66 at the time of the review or to hold the type rating on the particular aircraft.
- 4. To hold a position with appropriate responsibilities means the airworthiness review staff should have a position within the competent authority that authorises that person to sign on behalf that competent authority.
- 5. A person in the competent authority carrying out airworthiness reviews or airworthiness certificate renewal inspections in a Member State, prior to the date of entry into force of <a href="Part-M">Part-M</a> should be considered as complying with <a href="M.B.902(b">M.B.902(b</a>).

## AMC M.B.902(b)(1) Airworthiness review by the competent authority

ED Decision 2016/011/R

For all aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 and for any other aircraft, other than balloons, above 2 730 kg MTOM, formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

- Relevant parts of continuing airworthiness regulations.
- Relevant parts of operational requirements and procedures, if applicable.
- Knowledge of the internal procedures for continuing airworthiness.
- Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to <u>Part-66 Appendix III</u> Level 1 General Familiarisation.

'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

## AMC M.B.902(b)(2) Airworthiness review by the competent authority

D Decision 2020/002/R

For aircraft of 2 730 kg MTOM and below, not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, appropriate aeronautical maintenance training means demonstrated knowledge of the following subjects:

- Relevant parts of continuing airworthiness regulations.
- Relevant parts of operational requirements and procedures, if applicable.

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- Knowledge of the internal procedures for continuing airworthiness.
- Knowledge of a relevant sample of the type(s) of aircraft gained through training and/or work experience. Such knowledge should be at least at a level equivalent to <u>Part-66 Appendix III</u> Level 1 General Familiarisation.

'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority. This assessment should be recorded.

## AMC M.B.902(c) Airworthiness review by the competent authority

D Decision 2015/029/R

#### The minimum content of the airworthiness review staff record should be:

- Name,
- Date of Birth,
- Basic Education,
- Experience,
- Aeronautical Degree and/or <u>Part-66</u>-qualification,
- Initial Training received,
- Type Training received,
- Continuation Training received,
- Experience in continuing airworthiness and within the organisation,
- Responsibilities of current job.

## M.B.903 Findings

Regulation (EU) No 1321/2014

If during aircraft surveys or by other means evidence is found showing non-compliance to a <u>Part-M</u> requirement, the competent authority shall take the following actions:

- for level 1 findings, the competent authority shall require appropriate corrective action to be taken before further flight and immediate action shall be taken by the competent authority to revoke or suspend the airworthiness review certificate.
- 2. for level 2 findings, the corrective action required by the competent authority shall be appropriate to the nature of the finding.

## M.B.904 Exchange of information

Regulation (EU) 2019/1383

Upon receipt of a notification of aircraft transfer between the Member States according to point M.A.903, the competent authority of the Member State where the aircraft is currently registered shall inform the competent authority of the Member State where the aircraft will be registered of any known problems with the aircraft being transferred. The competent authority of the Member State



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where the aircraft will be registered shall ensure that the competent authority of the Member State where the aircraft is currently registered has been properly notified about the transfer.



## **APPENDICES TO ANNEX I (PART-M)**

## Appendix I — Continuing airworthiness management contract

Regulation (EU) 2019/1383

- 1. When an owner or operator contracts in accordance with point M.A.201 a CAMO or CAO to carry out continuing airworthiness management tasks, upon request by the competent authority, a copy of the contract signed by both parties shall be sent by the owner or operator to the competent authority of the Member State of registry.
- 2. The contract shall be developed taking into account the requirements of this Annex and shall define the obligations of the signatories in relation to the continuing airworthiness of the aircraft.
- 3. It shall contain as a minimum the following information:
  - aircraft registration, type and serial number;
  - aircraft owner's or registered lessee's name or company details including the address,
  - details of the contracted CAMO or CAO, including the address, and
  - the type of operation.
- 4. It shall state the following:

"The owner or operator entrusts the CAMO or CAO with the management of the continuing airworthiness of the aircraft, the development of an AMP that shall be approved by the competent authority as detailed in point M.1, and the organisation of the maintenance of the aircraft according to said AMP.

According to the present contract, both signatories undertake to follow the respective obligations of this contract.

The owner or operator declares to the best of its knowledge that all the information given to the CAMO or CAO concerning the continuing airworthiness of the aircraft is and will be accurate, and that the aircraft will not be altered without prior approval of the CAMO or CAO.

In case of any non-conformity with this contract, by either of the signatories, the contract will become null. In such a case, the owner or operator will retain full responsibility for every task linked to the continuing airworthiness of the aircraft, and the owner will inform the competent authorities of the Member State of registry within 2 weeks about such non-conformity with the contract."

- 5. When an owner/operator contracts a CAMO or CAO in accordance with point M.A.201, the obligations of each party shall be assigned as follows:
- 5.1. Obligations of the CAMO or CAO:
  - 1. have the aircraft type included in its terms of approval;
  - 2. respect the conditions listed below with regard to maintaining the continuing airworthiness of the aircraft:
    - (a) develop an AMP for the aircraft, including any reliability programme developed, if applicable;
    - declare the maintenance tasks (in the AMP) that may be carried out by the pilotowner in accordance with point (c) of point M.A.803;



- (c) organise the approval of the AMP;
- (d) once it has been approved, provide the owner or operator with a copy of the AMP;
- (e) organise a bridging inspection with the aircraft prior maintenance programme;
- (f) organise for all maintenance to be carried out by an approved maintenance organisation;
- (g) organise for all applicable ADs to be applied;
- (h) organise for all defects discovered during scheduled maintenance, airworthiness reviews or reported by the owner to be rectified by an approved maintenance organisation;
- (i) coordinate scheduled maintenance, the application of ADs, the replacement of lifelimited parts, and component inspection requirements;
- (j) inform the owner each time the aircraft shall be brought to an approved maintenance organisation;
- (k) manage all technical records;
- (I) archive all technical records;
- 3. organise the approval of any modification to the aircraft in accordance with Annex I to Regulation (EU) No 748/2012 (Part-21) before it is embodied;
- 4. organise the approval of any repair to the aircraft in accordance with Annex I to Regulation (EU) No 748/2012 (Part-21) before it is carried out;
- 5. inform the competent authority of the Member State of registry whenever the aircraft is not presented to the approved maintenance organisation by the owner as requested by the approved organisation;
- 6. inform the competent authority of the Member State of registry whenever the present contract is not respected;
- 7. ensure that the airworthiness review of the aircraft is carried out when necessary, and ensure that the airworthiness review certificate is issued or a recommendation is sent to the competent authority of the Member State of registry;
- 8. send within 10 days a copy of any airworthiness review certificate issued or extended to the competent authority of the Member State of registry;
- 9. carry out all occurrence reporting mandated by applicable regulations;
- 10. inform the competent authority of the Member State of registry when the contract is denounced by either party.

#### 5.2. Obligations of the owner or operator:

- 1. have a general understanding of the approved AMP;
- 2. have a general understanding of this Annex;
- 3. present the aircraft to the approved maintenance organisation agreed with the CAMO or CAO at the due time designated at the CAMO's or CAO's request;
- 4. not modify the aircraft without first consulting the CAMO or CAO;
- 5. inform the CAMO or CAO of all maintenance exceptionally carried out without the knowledge and control of the CAMO or CAO;

- 6. report all defects found during operations to the CAMO or CAO through the logbook;
- 7. inform the competent authority of the Member State of registry whenever the present contract is denounced by either party;
- 8. inform the CAMO or CAO and competent authority of the Member State of registry whenever the aircraft is sold:
- 9. carry out all occurrence reporting mandated by applicable regulations;
- 10. inform on a regular basis the CAMO or CAO about the aircraft flying hours and any other utilisation data, as agreed with the CAMO or CAO;
- 11. enter the CRS in the logbooks as mentioned in point (d) of point M.A.803 when performing pilot-owner maintenance without exceeding the limits of the maintenance tasks list as declared in the approved AMP as laid down in point (c) of point M.A.803;
- 12. inform the CAMO or CAO not later than 30 days after completion of any pilot-owner maintenance task in accordance with point (a) of point M.A.305.
- 6. When an owner or operator contracts a CAMO or CAO in accordance with point M.A.201, the obligations of each party in respect of mandatory and voluntary occurrence reporting in accordance with Regulation (EU) No 376/2014 of the European Parliament and of the Council shall be clearly specified.

## **GM to Appendix I to Part-M — Continuing airworthiness** management contract

ED Decision 2020/002/R

An operator should establish adequate coordination between flight operations and the CAO/CAMO to ensure that both will receive all the necessary information on the condition of the aircraft to enable them perform their tasks.

Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, amending Regulation (EU) No 996/2010 of the European Parliament and of the Council and repealing Directive 2003/42/EC of the European Parliament and of the Council and Commission Regulations (EC) No 1321/2007 and (EC) No 1330/2007 (OJ L 122, 24.4.2014, p. 18).



## Appendix II — Authorised Release Certificate — EASA Form 1

Regulation (EU) 2019/1383

These instructions relate only to the use of the <u>EASA Form 1</u> for maintenance purposes. Attention is drawn to Appendix I to Annex I (Part-21) of Regulation (EU) No 748/2012 which covers the use of the EASA Form 1 for production purposes.

#### 1. PURPOSE AND USE

- 1.1. The primary purpose of the Certificate is to declare the airworthiness of maintenance work undertaken on products, parts and appliances (hereafter referred to as 'item(s)').
- 1.2. Correlation must be established between the Certificate and the item(s). The originator must retain a Certificate in a form that allows verification of the original data.
- 1.3. The Certificate is acceptable to many airworthiness authorities, but may be dependent on the existence of bilateral agreements and/or the policy of the airworthiness authority. The 'approved design data' mentioned in this Certificate then means approved by the airworthiness authority of the importing country.
- 1.4. The Certificate is not a delivery or shipping note.
- 1.5. Aircraft are not to be released using the Certificate.
- 1.6. The Certificate does not constitute approval to install the item on a particular aircraft, engine, or propeller but helps the end user determine its airworthiness approval status.
- 1.7. A mixture of production released and maintenance released items is not permitted on the same Certificate.

#### 2. GENERAL FORMAT

- 2.1. The Certificate must comply with the format attached including block numbers and the location of each block. The size of each block may however be varied to suit the individual application, but not to the extent that would make the Certificate unrecognisable.
- 2.2. The Certificate must be in 'landscape' format but the overall size may be significantly increased or decreased so long as the Certificate remains recognisable and legible. If in doubt consult the Competent Authority.
- 2.3. The User/Installer responsibility statement can be placed on either side of the form.
- 2.4. All printing must be clear and legible to permit easy reading.
- 2.5. The Certificate may either be pre-printed or computer generated but in either case the printing of lines and characters must be clear and legible and in accordance with the defined format.
- 2.6. The Certificate should be in English, and if appropriate, in one or more other languages.
- 2.7. The details to be entered on the Certificate may be either machine/computer printed or hand-written using block letters and must permit easy reading.
- 2.8. Limit the use of abbreviations to a minimum, to aid clarity.
- 2.9. The space remaining on the reverse side of the Certificate may be used by the originator for any additional information but must not include any certification statement. Any use of the reverse side of the Certificate must be referenced in the appropriate block on the front side of the Certificate



#### 3. COPIES

3.1. There is no restriction in the number of copies of the Certificate sent to the customer or retained by the originator.

### 4. ERROR(S) ON A CERTIFICATE

- 4.1. If an end-user finds an error(s) on a Certificate, he must identify it/them in writing to the originator. The originator may issue a new Certificate only if the error(s) can be verified and corrected.
- 4.2. The new Certificate must have a new tracking number, signature and date.
- 4.3. The request for a new Certificate may be honoured without re-verification of the item(s) condition. The new Certificate is not a statement of current condition and should refer to the previous Certificate in block 12 by the following statement; 'This Certificate corrects the error(s) in block(s) [enter block(s) corrected] of the Certificate [enter original tracking number] dated [enter original issuance date] and does not cover conformity/condition/release to service'. Both Certificates should be retained according to the retention period associated with the first.

### 5. COMPLETION OF THE CERTIFICATE BY THE ORIGINATOR

Block 1 Approving Competent Authority/Country

State the name and country of the competent authority under whose jurisdiction this Certificate is issued. When the competent authority is the Agency, only 'EASA' must be stated.

Block 2 EASA Form 1 header

#### **'AUTHORISED RELEASE CERTIFICATE**

#### EASA FORM 1'

Block 3 Form Tracking Number

Enter the unique number established by the numbering system/procedure of the organisation identified in block 4; this may include alpha/numeric characters.

Block 4 Organisation Name and Address

Enter the full name and address of the approved organisation (refer to EASA form 3) releasing the work covered by this Certificate. Logos, etc., are permitted if the logo can be contained within the block.

Block 5 Work Order/Contract/Invoice

To facilitate customer traceability of the item(s), enter the work order number, contract number, invoice number, or similar reference number.

Block 6 Item

Enter line item numbers when there is more than one line item. This block permits easy cross-referencing to the Remarks block 12.

Block 7 Description

Enter the name or description of the item. Preference should be given to the term used in the instructions for continued airworthiness or maintenance data (e.g. Illustrated Parts Catalogue, Aircraft Maintenance Manual, Service Bulletin, Component Maintenance Manual).



#### Block 8 Part Number

Enter the part number as it appears on the item or tag/packaging. In case of an engine or propeller the type designation may be used.

#### **Block 9 Quantity**

State the quantity of items.

#### Block 10 Serial Number

If the item is required by regulations to be identified with a serial number, enter it here. Additionally, any other serial number not required by regulation may also be entered. If there is no serial number identified on the item, enter 'N/A'.

#### Block 11 Status/Work

The following describes the permissible entries for block 11. Enter only one of these terms — where more than one may be applicable, use the one that most accurately describes the majority of the work performed and/or the status of the article.

(i)	Overhauled	Means a process that ensures the item is in complete conformity with all the applicable service tolerances specified in the type certificate holder's, or equipment manufacturer's instructions for continued airworthiness, or in the data which is approved or accepted by the Authority. The item will be at least disassembled, cleaned, inspected, repaired as necessary, reassembled and tested in accordance with the above specified data.
(ii)	Repaired	Rectification of defect(s) using an applicable standard (1).
(iii)	Inspected/Tested	Examination, measurement, etc. in accordance with an applicable standard (1) (e.g. visual inspection, functional testing, bench testing etc.).
(iv)	Modified	Alteration of an item to conform to an applicable standard (1).

<sup>(1)</sup> Applicable standard means a manufacturing/design/maintenance/quality standard, method, technique or practice approved by or acceptable to the Competent Authority. The applicable standard shall be described in block 12.

#### Block 12 Remarks

Describe the work identified in Block 11, either directly or by reference to supporting documentation, necessary for the user or installer to determine the airworthiness of item(s) in relation to the work being certified. If necessary, a separate sheet may be used and referenced from the main EASA Form 1. Each statement must clearly identify which item(s) in Block 6 it relates to.

Examples of information to be entered in block 12 are:

- (i) Maintenance data used, including the revision status and reference.
- (ii) Compliance with airworthiness directives or service bulletins.
- (iii) Repairs carried out.



- (iv) Modifications carried out.
- (v) Replacement parts installed.
- (vi) Life limited parts status.
- (vii) Deviations from the customer work order.
- (viii) Release statements to satisfy a foreign Civil Aviation Authority maintenance requirement.
- (ix) Information needed to support shipment with shortages or re-assembly after delivery.
- (x) For maintenance organisations approved in accordance with Subpart F of Annex I (Part-M) or Annex Vd (Part-CAO), the component CRS statement referred to in point M.A.613 and CAO.A.070, as applicable:

"Certifies that, unless otherwise specified in this block, the work identified in block 11 and described in this block was accomplished in accordance with the requirements of Section A, Subpart F of Annex I (Part-M) or Annex Vd (Part-CAO) to Regulation (EU) No 1321/2014, and in respect to that work the item is considered ready for release to service. THIS IS NOT A RELEASE UNDER ANNEX II (PART-145) TO REGULATION (EU) No 1321/2014."

If printing the data from an electronic EASA Form 1, any appropriate data not fit for other blocks should be entered in this block.

#### Block 13a-13e

General Requirements for blocks 13a-13e: Not used for maintenance release. Shade, darken, or otherwise mark to preclude inadvertent or unauthorised use.

#### Block 14a

Mark the appropriate box(es) indicating which regulations apply to the completed work. If the box "other regulations specified in block 12" is marked, then the regulations of the other airworthiness authority(ies) must be identified in block 12. At least one box must be marked, or both boxes may be marked, as appropriate.

For all maintenance carried out by maintenance organisations approved in accordance with Section A, Subpart F of Annex I (Part M) or Annex Vd (Part-CAO) to Regulation (EU) No 1321/2014, the box "other regulation specified in block 12" shall be ticked and the CRS statement be entered in block 12. In that case, the certification statement "unless otherwise specified in this block" is intended to address the following cases:

- (a) where maintenance could not be completed;
- (b) where maintenance deviated from the standard required by Annex I (Part-M) or Annex Vd (Part-CAO);
- (c) where maintenance was carried out in accordance with a requirement other than that specified in Annex I (Part-M) or Annex Vd (Part-CAO); in this case, block 12 shall specify the particular national regulation.

For all maintenance carried out by maintenance organisations approved in accordance with Section A of Annex II (Part-145) to Regulation (EU) No 1321/2014, the certification statement "unless otherwise specified in block 12" is intended to address the following cases:

- (a) where maintenance could not be completed;
- (b) where maintenance deviated from the standard required by Annex II (Part-145);

(c) where maintenance was carried out in accordance with a requirement other than that specified in Annex II (Part-145); in this case, block 12 shall specify the particular national regulation.

#### Block 14b Authorised Signature

This space shall be completed with the signature of the authorised person. Only persons specifically authorised under the rules and policies of the Competent Authority are permitted to sign this block. To aid recognition, a unique number identifying the authorised person may be added.

Block 14c Certificate/Approval Number

Enter the Certificate/Approval number/reference. This number or reference is issued by the Competent Authority.

Block 14d Name

Enter the name of the person signing block 14b in a legible form.

Block 14e Date

Enter the date on which block 14b is signed, the date must be in the format dd = 2 digit day, mmm = first 3 letters of the month, yyyy = 4 digit year

User/Installer Responsibilities

Place the following statement on the Certificate to notify end users that they are not relieved of their responsibilities concerning installation and use of any item accompanied by the form:

THIS CERTIFICATE DOES NOT AUTOMATICALLY CONSTITUTE AUTHORITY TO INSTALL.

WHERE THE USER/INSTALLER PERFORMS WORK IN ACCORDANCE WITH REGULATIONS OF AN AIRWORTHINESS AUTHORITY DIFFERENT THAN THE AIRWORTHINESS AUTHORITY SPECIFIED IN BLOCK 1, IT IS ESSENTIAL THAT THE USER/INSTALLER ENSURES THAT HIS/HER AIRWORTHINESS AUTHORITY ACCEPTS ITEMS FROM THE AIRWORTHINESS AUTHORITY SPECIFIED IN BLOCK 1.

STATEMENTS IN BLOCKS 13A AND 14A DO NOT CONSTITUTE INSTALLATION CERTIFICATION. IN ALL CASES AIRCRAFT MAINTENANCE RECORDS MUST CONTAIN AN INSTALLATION CERTIFICATION ISSUED IN ACCORDANCE WITH THE NATIONAL REGULATIONS BY THE USER/INSTALLER BEFORE THE AIRCRAFT MAY BE FLOWN.'



1. Approving Competent Authority / Country		try				3. Form Tracking Number
			2. AUTHORISI	ED RELEASE CERT	ГІГІСАТЕ	
			E	ASA FORM 1		
4. Organisation Nam	ne and Address:					5. Work Order/Contract/Invoice
6. Item	6. Item 7. Description		8. Part No.	9. Qty.	10. Serial No.	11. Status/Work
12. Remarks	•			1	-	
13a. Certifies that th	ne items identified abo	ve were man	nufactured in conformity to:			Other regulation specified in block 12
□ approved d	lesign data and are in a	a condition fo	or safe operation			in block 12, the work identified in block 11 shed in accordance with Part-145 and in
□ non-approv	ved design data specifi	ed in block 1	2		· · · · · · · · · · · · · · · · · · ·	dered ready for release to service.
13b. Authorised Signature 13c. Appro		roval/Authorisation Number 14b. Authorisation		ed Signature	14c. Certificate/Approval Ref. No.	
13d. Name 13e. Date (do		ld mmm yyyy)	14d. Name		14e. Date (dd mmm yyyy)	
LICED (INICTALLED DE	CRONCIBULTIES					

#### USER/INSTALLER RESPONSIBILITIES

This certificate does not automatically constitute authority to install the item(s).

Where the user/installer performs work in accordance with regulations of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1.

Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

EASA Form 1 — MF/CAO/145 Issue 3

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## AMC to Appendix II to Part-M — Use of the EASA Form 1 for maintenance

ED Decision 2015/029/R

- 1. The following formats of an issued EASA Form 1 or equivalent certificate are acceptable:
  - A paper certificate bearing a signature (both originals and copies are accepted);
  - A paper certificate generated from an electronic system (printed from electronically stored data) when complying with the following subparagraph 2;
  - An electronic EASA Form 1 or equivalent when complying with the following subparagraph 2.
- 2. Electronic signature and electronic exchange of the EASA Form 1
  - a) Submission to the competent authority
    - Any organisation intending to implement an electronic signature procedure to issue EASA Form 1 and/or to exchange electronically such data contained on the EASA Form 1, should document it and submit it to the competent authority as part of the documents attached to its exposition.
  - b) Characteristics of the electronic system generating the EASA Form 1

The electronic system should:

- guarantee secure access for each certifying staff;
- ensure integrity and accuracy of the data certified by the signature on the form and be able to show evidence of the authenticity of the EASA Form 1 (recording and record keeping) with suitable security, safeguards and backups;
- be active only at the location where the part is being released with an EASA Form 1;
- not permit to sign a blank form;
- provide a high degree of assurance that the data has not been modified after signature (if modification is necessary after issuance, i.e., re-certification of a part, a new form with a new number and reference to the initial issuance should be made).
- provide for a 'personal' electronic signature, identifying the signatory. The signature should be generated only in presence of the signatory.

An electronic signature means data in electronic form which is attached to or logically associated with other electronic data and which serves as a method of authentication and should meet the following criteria:

- it is uniquely linked to the signatory;
- it is capable of identifying the signatory;
- it is created using means that the signatory can maintain under his sole control.

This electronic signature should be an electronically generated value based on a cryptographic algorithm and appended to data in a way to enable the verification of the data's source and integrity.

Organisation(s) are reminded that additional national and/or European requirements may need to be satisfied when operating electronic systems. 'Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures', as last amended, may constitute a reference.

The electronic system should be based on a policy and management structure (confidentiality, integrity and availability), such as:

- Administrators, signatories;
- Scope of authorisation, rights;
- Password and secure access, authentication, protections, confidentiality;
- Track changes;
- Minimum blocks to be completed, completeness of information;
- Archives;
- etc.

The electronic system generating the EASA Form 1 may contain additional data such as;

- Manufacturer code;
- Customer identification code;
- Workshop report;
- Inspection results;
- etc.
- c) Characteristics of the EASA Form 1 generated from the electronic system.

To facilitate understanding and acceptance of the EASA Form 1 released with an electronic signature, the following statement should be in Block 14b: 'Electronic Signature on File'.

In addition to this statement, it is accepted to print or display a signature in any form, such as a representation of the hand-written signature of the person signing (i.e. scanned signature) or a representation of their name.

When printing the electronic form, the EASA Form 1 should meet the general format as specified in <u>Appendix II to Part-M</u>. A watermark-type 'PRINTED FROM ELECTRONIC FILE' should be printed on the document.

When the electronic file contains a hyperlink to data required to determine the airworthiness of the item(s), the data associated to the hyperlink, when printed, should be in a legible format and be identified as a reference from the EASA Form 1.

Additional information not required by the EASA Form 1 completion instructions may be added to the printed copies of EASA Form 1, as long as the additional data do not prevent a person from filling out, issuing, printing, or reading any portion of the EASA Form 1. This additional data should be provided only in block 12 unless it is necessary to include it in another block to clarify the content of that block.



#### d) Electronic exchange of the electronic EASA Form 1

The electronic exchange of the electronic EASA Form 1 should be accomplished on a voluntary basis. Both parties (issuer and receiver) should agree on electronic transfer of the EASA Form 1.

For that purpose, the exchange needs to include:

- all data of the EASA Form 1, including referenced data required by the EASA Form
   1 completion instructions;
- all data required for authentication of the EASA Form 1.
- In addition, the exchange may include:
- data necessary for the electronic format;
- additional data not required by the EASA Form 1 completion instructions, such as manufacturer code, customer identification code.
- The system used for the exchange of the electronic EASA Form 1 should provide:
- A high level of digital security; the data should be protected, not altered or not corrupted;
- Traceability of data back to its source.

Trading partners wishing to exchange EASA Form 1 electronically should do so in accordance with the means of compliance stated in this document. It is recommended that they use an established, common, industry method such as Air Transport Association (ATA) Spec 2000 Chapter 16.

The organisation(s) are reminded that additional national and/or European requirements may need to be satisfied when operating the electronic exchange of the electronic EASA Form 1.

The receiver should be capable of regenerating the EASA Form 1 from the received data without alteration; if not, the system should revert back to the paper system.

When the receiver needs to print the electronic form, refer to subparagraph c) here above.

## GM to Appendix II to Part-M — Use of the EASA Form 1 for maintenance

ED Decision 2019/009/R

#### **EASA FORM 1 BLOCK 12 'REMARKS'**

The EASA Form 1 identifies the airworthiness status of an aircraft component in relation to the work being certified. Block 12 'Remarks' of the <u>EASA Form 1</u> in some cases contains vital airworthiness-related information (see also Appendix II to Part-M) which may need appropriate and necessary actions.

Examples of data to be entered in this block as appropriate:

 Maintenance documentation used, including the revision status, for all work performed and not limited to the entry made in block 11. A statement such as 'in accordance with the CMM' is not acceptable.



- NDT methods with appropriate documentation used when relevant.
- Compliance with airworthiness directives or service bulletins.
- Repairs carried out.
- Modifications carried out.
- Replacement parts installed.
- Life-limited parts status.
- Shelf life limitations.
- Deviations from the customer work order.
- Release statements to satisfy a foreign civil aviation authority maintenance requirement.
- Information needed to support shipment with shortages or re-assembly after delivery.
- References to aid traceability, such as batch numbers.



## **Appendix III — Airworthiness Review Certificate — EASA Form 15**

#### EASA Form 15b

Regulation (EU) 2021/700

### [MEMBER STATE] A Member of the European Union (\*)

### **AIRWORTHINESS REVIEW CERTIFICATE (ARC)**

ARC reference: .....

Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council the following organisation, approved in accordance with Section A of Annex Vc (Part-CAMO) or Section A of Subpart G of Annex I (Part-M) or Section A of Annex Vd (Part-CAO) to Commission Regulation (EU) No 1321/2014,

[NAME OF ORGANISATION APPROVED AND ADDRESS]

[APPROVAL REFERENCE]

hereby certifies that it has performed an airworthiness review in accordance with point M.A.901 of Annex I to Commission Regulation (EU) No 1321/2014 on the following aircraft:

Aircraft manufacturer:	
Manufacturer's designation:	
Aircraft registration:	
Aircraft serial number:	
and this aircraft is considered airworthy at the time o	
·	
Date of issue:	Date of expiry:
Airframe Flight Hours (FH) at date of issue (**):	
Signed:	
1st extension: The aircraft has remained in a controlle	ed environment in accordance with point M.A.901 of
Annex I (Part-M) to Commission Regulation (EU) No 1	321/2014 for the last year. The aircraft is considered to
be airworthy at the time of the issue.	
Date of issue:	Date of expiry:
Airframe Flight Hours (FH) at date of issue (**):	
Signed:	. Authorisation No:
Company Name:	. Approval reference:
2nd extension: The aircraft has remained in a controll	led environment in accordance with point M.A.901 of
Annex I (Part-M) to Commission Regulation (EU) No 1	321/2014 for the last year. The aircraft is considered to
be airworthy at the time of the issue.	
Date of issue:	Date of expiry:
Airframe Flight Hours (FH) at date of issue (**):	
Signed:	Authorisation No:
Company Name:	Approval reference:
* Delete for non-EU Member States	

EASA Form 15b Issue 6

(\*) Delete for non-EU Member States.

(\*\*) Except for airships.

2nd extension: The aircraft has remained in a controlled environment in accordance with point  $\underline{\text{M.A.901}}$  of Annex I (Part-M) to Commission Regulation (EU) No 1321/2014 for the last year. The aircraft is considered

#### EASA Form 15a

Regulation (EU) 2019/1383

## [MEMBER STATE] A Member of the European Union (\*) **AIRWORTHINESS REVIEW CERTIFICATE (ARC)** ARC reference: ...... Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council the [COMPETENT AUTHORITY OF THE MEMBER STATE] hereby certifies that the following aircraft: Aircraft manufacturer: ...... Manufacturer's designation: Aircraft registration: Aircraft serial number: ..... is considered airworthy at the time of the review. Airframe Flight Hours (FH) at date of issue (\*\*): Signed: ...... Authorisation No: ...... 1st extension: The aircraft has remained in a controlled environment in accordance with point M.A.901 of Annex I (Part-M) to Commission Regulation (EU) No 1321/2014 for the last year. The aircraft is considered to be airworthy at the time of the issue. Airframe Flight Hours (FH) at date of issue (\*\*): Signed: ...... Authorisation No: ...... Company Name: ...... Approval reference: ......

FASA Form 15a Issue 5

(\*) Delete for non-EU Member States.

to be airworthy at the time of the issue.

(\*\*) Except for balloons and airships.



# Appendix IV — Class and Ratings System to be used for the Approval of Maintenance Organisations referred to in Annex I (Part-M) Subpart F and Annex II (Part-145)

Regulation (EU) 2020/270

- Except as stated otherwise for the smallest organisations in point 12, the table referred to in point 13 provides the standard system for the approval of maintenance organisation under <u>Subpart F of Annex I (Part-M)</u> and <u>Annex II (Part-145)</u>. An organisation must be granted an approval ranging from a single class and rating with limitations to all classes and ratings with limitations.
- 2. In addition to the table referred to in point 13, the approved maintenance organisation is required to indicate its *scope of work* in its maintenance organisation manual/exposition. See also point 11.
- 3. Within the approval class(es) and rating(s) granted by the competent authority, the scope of work specified in the maintenance organisation exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisations scope of work are matching.
- 4. A category A class rating means that the approved maintenance organisation may carry out maintenance on the aircraft and any component (including engines and/or Auxiliary Power Units (APUs), in accordance with aircraft maintenance data or, if agreed by the competent authority, in accordance with component maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such A-rated approved maintenance organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not eligible for the provisions of this point. This will be subject to a control procedure in the maintenance organisation exposition to be approved by the competent authority. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.
- 5. A category B class rating means that the approved maintenance organisation may carry out maintenance on the uninstalled engine and/or APU and engine and/or APU components, in accordance with engine and/or APU maintenance data or, if agreed by the competent authority, in accordance with component maintenance data, only whilst such components are fitted to the engine and/or APU. Nevertheless, such B-rated approved maintenance organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not eligible for the provisions of this point. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A maintenance organisation approved with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the maintenance organisation exposition to be approved by the competent authority. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the competent authority.
- 6. A category C class rating means that the approved maintenance organisation may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A maintenance organisation approved with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure



in the maintenance organisation exposition to be approved by the competent authority. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the competent authority.

- 7. A category D class rating is a self contained class rating not necessarily related to a specific aircraft, engine or other component. The D1 Non Destructive Testing (NDT) rating is only necessary for an approved maintenance organisation that carries out NDT as a particular task for another organisation. A maintenance organisation approved with a class rating in A or B or C category may carry out NDT on products it is maintaining subject to the maintenance organisation exposition containing NDT procedures, without the need for a D1 class rating.
- 8. In the case of maintenance organisations approved in accordance with <u>Annex II (Part-145)</u>, category A class ratings are subdivided into 'Base' or 'Line' maintenance. Such an organisation may be approved for either 'Base' or 'Line' maintenance or both. It should be noted that a 'Line' facility located at a main base facility requires a 'Line' maintenance approval.
- 9. The *limitation* section is intended to give the competent authorities the flexibility to customise the approval to any particular organisation. Ratings shall be mentioned on the approval only when appropriately limited. The table referred to in point 13 specifies the types of limitation possible. Whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organisation (an example could be avionic systems installations and related maintenance). Such mention in the limitation section indicates that the maintenance organisation is approved to carry out maintenance up to and including this particular type/task.
- 10. When reference is made to series, type and group in the limitation section of class A and B, series means a specific type series such as Airbus 300 or 310 or 319 or Boeing 737-300 series or RB211-524 series or Cessna 150 or Cessna 172 or Beech 55 series or continental O-200 series etc; type means a specific type or model such as Airbus 310-240 type or RB 211-524 B4 type or Cessna 172RG type; any number of series or types may be quoted; group means for example Cessna single piston engine aircraft or Lycoming non-supercharged piston engines etc.
- 11. When a *lengthy capability list* is used which could be subject to frequent amendment, then such amendment may be in accordance with the indirect approval procedure referred to in points M.A.604(c) and M.B.606(c) or 145.A.70(c) and 145.B.40, as applicable.
- 12. A maintenance organisation which employs only one person to both plan and carry out all maintenance can only hold a limited scope of approval rating. The maximum permissible limits are:

CLASS	RATING	LIMITATION
CLASS AIRCRAFT	RATING A2 AEROPLANES 5700 KG AND BELOW	PISTON ENGINE 5700 KG AND BELOW
CLASS AIRCRAFT	RATING A3 HELICOPTERS	SINGLE PISTON ENGINE 3175 KG AND BELOW
CLASS AIRCRAFT	RATING A4 AIRCRAFT OTHER THAN A1, A2 AND A3	NO LIMITATION
CLASS ENGINES	RATING B2 PISTON	LESS THAN 450 HP
CLASS COMPONENTS RATING OTHER THAN COMPLETE ENGINES OR APU'S.	C1 TO C22	AS PER CAPABILITY LIST
CLASS SPECIALISED	D1 NDT	NDT METHOD(S) TO BE SPECIFIED.



It should be noted that such an organisation may be further limited by the competent authority in the scope of approval dependent upon the capability of the particular organisation.

### 13. Table

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes above 5 700 kg	[Rating reserved to Maintenance Organisations approved in accordance with Annex II (Part-145)] [Shall state aeroplane manufacturer or group or series or type and/or the maintenance tasks]  Example: Airbus A320 Series	[YES/NO] (*)	[YES/NO] (*)
	A2 Aeroplanes 5 700 kg and below	[Shall state aeroplane manufacturer or group or series or type and/or the maintenance tasks]  Example: DHC-6 Twin Otter Series  State whether the issue of airworthiness review certificates is authorised or not	[YES/NO] (*)	[YES/NO] (*)
	A3 Helicopters	[Shall state helicopter manufacturer or group or series or type and/or the maintenance task(s)]  Example: Robinson R44	[YES/NO] (*)	[YES/NO] (*)
	A4 Aircraft other than A1, A2 and A3	[Shall state aircraft category (sailplane, balloon, airship, etc.), manufacturer or group or series or type and/or the maintenance task(s)]  State whether the issue of airworthiness review certificates is authorised or not	[YES/NO] (*)	[YES/NO] (*)
ENGINES	B1 Turbine	[Shall state engine series or type a Example: PT6A Series	nd/or the mainte	nance task(s)]
	B2 Piston	[Shall state engine manufacturer of and/or the maintenance task(s)]	or group or series	or type
	B3 APU	[Shall state engine manufacturer of maintenance task(s)]	or series or type a	nd/or the
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUS	C1 Air Cond & Press C2 Auto Flight C3 Comms and Nav C4 Doors — Hatches	[Shall state aircraft type or aircraft manufacturer or the particular cor a capability list in the exposition at task(s).]  Example: PT6A Fuel Control	mponent and/or o	ross refer to



CLASS	RATING	LIMITATION	BASE	LINE
	C5 Electrical Power & Lights			
	C6 Equipment			
	C7 Engine — APU			
	C8 Flight Controls			
	C9 Fuel			
	C10 Helicopter  — Rotors			
	C11 Helicopter  — Trans			
	C12 Hydraulic Power			
	C13 Indicating — recording system			
	C14 Landing Gear			
	C15 Oxygen			
	C16 Propellers			
	C17 Pneumatic & Vacuum			
	C18 Protection ice/rain/fire			
	C19 Windows			
	C20 Structural			
	C21 Water ballast			
	C22 Propulsion Augmentation			
SPECIALISED SERVICES	D1 Non Destructive Testing	[Shall state particular NDT method	l(s)]	
(*) Delete as ap	propriate			

## Appendix V — Maintenance Organisation Certificate referred to in Annex I (Part-M), Subpart F — EASA Form 3-MF

Regulation (EU) 2021/700

Page 1 of 2

[MEMBER STATE (\*)]
A Member of the European Union (\*\*)

#### **MAINTENANCE ORGANISATION CERTIFICATE**

Reference: [MEMBER STATE CODE (\*)].MF.[XXXX]

Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council and to Commission Regulation (EU) No 1321/2014 and subject to the conditions specified below, the [COMPETENT AUTHORITY OF THE MEMBER STATE (\*)] hereby certifies:

#### [COMPANY NAME AND ADDRESS]

as a maintenance organisation in compliance with Section A, Subpart F of Annex I (Part-M) to Commission Regulation (EU) No 1321/2014, approved to maintain the products, parts and appliances listed in the attached terms of approval and issue related certificates of release to service using the above references and, when stipulated, airworthiness review certificates after an airworthiness review as specified in point ML.A.903 of Annex Vb (Part-ML) to Commission Regulation (EU) No 1321/2014 for those aircraft listed in the attached terms of approval.

#### **CONDITIONS:**

- This certificate is limited to what is specified in the scope of work section of the approved maintenance organisation manual as referred to in Section A, Subpart F of Annex I (Part-M) to Commission Regulation (EU) No 1321/2014; and
- 2. This certificate requires compliance with the procedures specified in the approved maintenance organisation manual; and
- 3. This certificate is valid whilst the approved maintenance organisation remains in compliance with Annex I (Part-M) and Annex Vb (Part-ML) to Commission Regulation (EU) No 1321/2014.
- 4. Subject to compliance with the foregoing conditions, this certificate shall remain valid until 24 March 2022 unless the certificate has been surrendered, superseded, suspended or revoked before that date.

Date of original issue:
Date of this revision:
Revision No:
Signed:
For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE (*)]

EASA Form 3-MF Issue 6

- (\*) Or 'EASA' if EASA is the competent authority
- (\*\*) Delete for non-EU Member States or EASA.

Page 2 of 2

#### MAINTENANCE ORGANISATION TERMS OF APPROVAL

Reference: [MEMBER STATE CODE (\*)].MF.XXXX

Organisation: [COMPANY NAME AND ADDRESS]

CLASS	RATING	LIMITATION
AIRCRAFT (**)	(***)	(***)
	(***)	(***)
ENGINES (**)	(***)	(***)
	(***)	(***)
COMPONENTS OTHER THAN COMPLETE	(***)	(***)
ENGINES OR APUs (**)	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
SPECIALISED SERVICES (**)	(***)	(***)
(**)	(***)	(***)

the scope of work section of the approved maintenance organisation manual.  Maintenance organisation manual reference:
Date of original issue:
Date of last revision approved: Revision No:
Signed:
For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE (*)]

EASA Form 3-MF Issue 6

- (\*) Or 'EASA' if EASA is the competent authority.
- (\*\*) Delete as appropriate if the organisation is not approved.
- (\*\*\*) Complete with the appropriate rating and limitation.

(\*\*\*\*) Complete with the appropriate limitation and state whether the issue of airworthiness review certificates is authorised or not (only possible for ELA1 aircraft not involved in commercial operations when the organisation performs the airworthiness review together with the annual inspection contained in the AMP).

# AMC to Appendix V to Part-M — Maintenance Organisation Approval referred to in Annex I (Part-M) Subpart F

FD Decision 2015/029/R

The following fields on page 2 'Maintenance Organisation Approval Schedule' of the maintenance organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the maintenance organisation manual.
- Date of last revision approved: It refers to the date of the last revision of the maintenance organisation manual affecting the content of the certificate. Changes to the maintenance organisation manual which do not affect the content of the certificate do not require the reissuance of the certificate.
- Revision No: It refers to the revision No of the last revision of the maintenance organisation manual affecting the content of the certificate. Changes to the maintenance organisation manual which do not affect the content of the certificate do not require the reissuance of the certificate.



# Appendix VI — Continuing airworthiness management organisation certificate referred to in Annex I (Part-M) Subpart G – EASA Form 14-MG

Regulation (EU) 2021/700

#### [MEMBER STATE (\*)]

A Member of the European Union (\*\*)

#### CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION CERTIFICATE

Reference: [MEMBER STATE CODE (\*)].MG.XXXX (ref. AOC XX.XXXX)

Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council and to Commission Regulation (EU) No 1321/2014 for the time being in force and subject to the condition specified below, the [COMPETENT AUTHORITY OF THE MEMBER STATE (\*)] hereby certifies:

#### [COMPANY NAME AND ADDRESS]

as a continuing airworthiness management organisation in compliance with Section A, Subpart G of Annex I (Part-M) of Regulation (EU) No 1321/2014, approved to manage the continuing airworthiness of the aircraft listed in the attached terms of approval and, when stipulated, to issue recommendations and airworthiness review certificates after an airworthiness review as specified in point M.A.901 of Annex I (Part-M) or ML.A.901 of Annex Vb (Part-ML), and, when stipulated, to issue permits to fly as specified in point M.A.711(c) of Annex I (Part-M) to that Regulation.

#### **CONDITIONS**

- 1. This certificate is limited to that specified in the scope of work section of the approved continuing airworthiness management exposition as referred to in Section A, Subpart G of Annex I (Part-M) to Regulation (EU) No 1321/2014.
- 2. This certificate requires compliance with the procedures specified in the continuing airworthiness management exposition approved in accordance with Subpart G of Annex I (Part-M) to Regulation (EU) No 1321/2014.
- 3. This certificate is valid whilst the approved continuing airworthiness management organisation remains in compliance with Annex I (Part-M) and, if applicable, Annex Vb (Part-ML) to Regulation (EU) No 1321/2014.
- 4. Where the continuing airworthiness management organisation contracts under its Quality System the service of an organisation or several organisations, this certificate remains valid subject to such organisation(s) fulfilling applicable contractual obligations.
- 5. Subject to compliance with the conditions 1 to 4 above, this certificate shall remain valid until 24 March 2022, unless the certificate has previously been surrendered, superseded, suspended or revoked. If this form is also used for licenced air carriers in accordance with Regulation (EC) No 1008/2008, the Air Operator Certificate (AOC) number shall be added to the reference, in addition to the standard number, and the condition 5 shall be replaced by the following extra conditions 6, 7 and 8:
- 6. This certificate does not constitute an authorisation to operate the types of aircraft referred in condition 1. The authorisation to operate the aircraft is the AOC.
- 7. Termination, suspension or revocation of the AOC automatically invalidates this certificate in relation to the aircraft registrations specified in the AOC, unless otherwise explicitly stated by the competent authority.
- 8. Subject to compliance with conditions 1 to 4, 6 and 7, this certificate shall remain valid until 24 March 2022, unless the certificate has previously been surrendered, superseded, suspended or revoked.

Date of original issue:		
Signed:		
Date of this revision:	Revision No:	
For the Competent Authority: [COMPETENT AUTHORI	TY OF THE MEMBER STATE (*)]	
		Page 1 of 2

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Page 2 of 2

# CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION TERMS OF APPROVAL

Reference: [MEMBER STATE CODE (\*)].MG.XXXX (ref. AOC XX.XXXX)

Organisation: [COMPANY NAME AND ADDRESS]

Aircraft type/series/group	Airworthiness	Permits to fly	Organisation(s) working
	review authorised [YES/NO] (***)	authorised [YES/NO] (***)	under quality system
	[YES/NO] (***)	[YES/NO] (***)	
	[YES/NO] (***)	[YES/NO] (***)	
	[YES/NO] (***)	[YES/NO] (***)	

These terms of approval are limited to that specified in the scope of work contained in the approved Continuing Airworthiness Management Exposition section
Continuing Airworthiness Management Exposition Reference:
Date of original issue:
Signed:
Date of this revision:
For the Competent Authority: [COMPETENT AUTHORITY OF THE MEMBER STATE *]

#### EASA Form 14-MG Issue 6

- (\*) Or EASA if EASA is the competent authority
- (\*\*) Delete for non-EU Member State or EASA
- (\*\*\*) Delete as appropriate if the organisation is not approved.

# AMC to Appendix VI to Part-M — Continuing Airworthiness Management Organisation Approval referred to in Annex I (Part-M) Subpart G

ED Decision 2015/029/R

The following fields on page 2 'Continuing Airworthiness Management Organisation Approval Schedule' of the continuing airworthiness management organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the continuing airworthiness management exposition
- Date of last revision: It refers to the date of the last revision of the continuing airworthiness management exposition affecting the content of the certificate. Changes to the continuing



airworthiness management exposition which do not affect the content of the certificate do not require the reissuance of the certificate.

Revision No: It refers to the revision No of the last revision of the continuing airworthiness
management exposition affecting the content of the certificate. Changes to the continuing
airworthiness management exposition which do not affect the content of the certificate do not
require the reissuance of the certificate.



# **Appendix VII — Complex Maintenance Tasks**

Regulation (EU) 2019/1383

The following constitutes the complex maintenance tasks referred to in points (b)(2) and (c) of point M.A.801:

- 1. The modification, repair or replacement by riveting, bonding, laminating, or welding of any of the following airframe parts:
  - (a) a box beam;
  - (b) a wing stringer or chord member;
  - (c) a spar;
  - (d) a spar flange;
  - (e) a member of a truss-type beam;
  - (f) the web of a beam;
  - (g) a keel or chine member of a flying boat hull or a float;
  - (h) a corrugated sheet compression member in a wing or tail surface;
  - (i) a wing main rib;
  - (j) a wing or tail surface brace strut;
  - (k) an engine mount;
  - (I) a fuselage longeron or frame;
  - (m) a member of a side truss, horizontal truss or bulkhead;
  - (n) a seat support brace or bracket;
  - (o) a seat rail replacement;
  - (p) a landing gear strut or brace strut;
  - (q) an axle;
  - (r) a wheel; and
  - (s) a ski or ski pedestal, excluding the replacement of a low-friction coating.
- 2. The modification or repair of any of the following parts:
  - (a) aircraft skin, or the skin of an aircraft float, if the work requires the use of a support, jig or fixture;
  - (b) aircraft skin that is subject to pressurization loads, if the damage to the skin measures more than 15 cm (6 inches) in any direction;
  - (c) a load-bearing part of a control system, including a control column, pedal, shaft, quadrant, bell crank, torque tube, control horn and forged or cast bracket, but excluding
    - (i) the swaging of a repair splice or cable fitting, and
    - (ii) the replacement of a push-pull tube end fitting that is attached by riveting; and
  - (d) any other structure, not listed in (1), that a manufacturer has identified as primary structure in its maintenance manual, structural repair manual or instructions for continuing airworthiness.

- 3. The performance of the following maintenance on a piston engine:
  - (a) dismantling and subsequent reassembling of a piston engine other than (i) to obtain access to the piston/cylinder assemblies; or (ii) to remove the rear accessory cover to inspect and/or replace oil pump assemblies, where such work does not involve the removal and re-fitment of internal gears;
  - (b) dismantling and subsequent reassembling of reduction gears;
  - (c) welding and brazing of joints, other than minor weld repairs to exhaust units carried out by a suitably approved or authorised welder but excluding component replacement;
  - (d) the disturbing of individual parts of units which are supplied as bench tested units, except for the replacement or adjustment of items normally replaceable or adjustable in service.
- 4. The balancing of a propeller, except:
  - (a) for the certification of static balancing where required by the maintenance manual;
  - (b) dynamic balancing on installed propellers using electronic balancing equipment where permitted by the maintenance manual or other approved airworthiness data;
- 5. Any additional task that requires:
  - (a) specialized tooling, equipment or facilities; or
  - (b) significant coordination procedures because of the extensive duration of the tasks and the involvement of several persons.

# **AMC to Appendix VII — Complex Maintenance Tasks**

ED Decision 2015/029/R

The sentence 'suitably approved or authorised welder' contained in Appendix VII, paragraph 3(c), means that the qualification should meet an officially recognised standard or, otherwise, should be accepted by the competent authority.



# Appendix VIII — Limited Pilot-owner Maintenance

Regulation (EU) 2020/270

In addition to the requirements laid down in Annex I (Part-M), the following basic principles are to be complied with before any maintenance task is carried out under the terms of Pilot-owner maintenance:

- (a) Competence and responsibility
  - 1. The Pilot-owner is always responsible for any maintenance that he performs.
  - 2. Before carrying out any Pilot-owner maintenance tasks, the Pilot-owner must satisfy himself that he is competent to do the task. It is the responsibility of Pilot-owners to familiarize themselves with the standard maintenance practices for their aircraft and with the aircraft maintenance programme. If the Pilot-owner is not competent for the task to be carried out, the task cannot be released by the Pilot-owner.
  - 3. The Pilot-owner (or his contracted CAMO or CAO) is responsible for identifying the Pilot-owner tasks according to these basic principles in the maintenance programme and for ensuring that the document is updated in a timely manner.
  - 4. The approval of the maintenance programme has to be carried out in accordance with point M.A.302.

#### (b) Tasks

The Pilot-owner may carry out simple visual inspections or operations to check for general condition and obvious damage and normal operation of the airframe, engines, systems and components.

Maintenance tasks shall not be carried out by the Pilot-owner when the task:

- 1. is a critical maintenance task;
- 2. requires the removal of major components or major assembly and/or;
- 3. is carried out in compliance with an Airworthiness Directive or an Airworthiness Limitation Item, unless specifically allowed in the AD or the ALI and/or;
- 4. requires the use of special tools, calibrated tools (except torque wrench and crimping tool) and/or;
- 5. requires the use of test equipments or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or;
- 6. is composed of any unscheduled special inspections (e.g. heavy landing check) and/or;
- 7. is effecting systems essential for the IFR operations and/or;
- 8. is listed in <u>Appendix VII</u> to this Annex or is a component maintenance task in accordance with points <u>M.A.502(a)</u>, (b), (c) or (d) and/or;

The criteria 1 to 9 cannot be overridden by less restrictive instructions issued in accordance with  $(\underline{M.A.302(d)})$  Maintenance Programme'.

Any task described in the aircraft flight manual as preparing the aircraft for flight (Example: assembling the glider wings or pre-flight), is considered to be a pilot task and is not considered a Pilot-owner maintenance task and therefore does not require a Certificate of Release to Service.

(c) Performance of the maintenance Pilot-owner tasks and records

The maintenance data as specified in point M.A.401 must be always available during the conduct of Pilot-owner maintenance and must be complied with. Details of the data referred to in the conduct of Pilot-owner maintenance must be included in the Certificate of Release to Service in accordance with point M.A.803(d).

The Pilot-owner must inform the approved continuing airworthiness management organisation responsible for the continuing airworthiness of the aircraft (if applicable) not later than 30 days after completion of the Pilot-owner maintenance task in accordance with point M.A.305(a).

# AMC to Appendix VIII — Limited Pilot Owner Maintenance

ED Decision 2015/029/R

- 1. The lists here below specify items that can be expected to be completed by an owner who holds a current and valid pilot licence for the aircraft type involved and who meets the competence and responsibility requirements of <a href="#Appendix VIII">Appendix VIII to Part-M</a>.
- 2. The list of tasks may not address in a detailed manner the specific needs of the various aircraft categories. In addition, the development of technology and the nature of the operations undertaken by these categories of aircraft cannot be always adequately considered.
- 3. Therefore, the following lists are considered to be the representative scope of limited Pilotowner maintenance referred to in M.A.803 and Appendix VIII:
  - Part A applies to aeroplanes;
  - Part B applies to rotorcraft;
  - Part C applies to sailplanes and powered sailplanes;
  - Part D applies to balloons and airships.
- 4. Inspection tasks/checks of any periodicity included in an approved maintenance programme can be carried out providing that the specified tasks are included in the generic lists of Parts A to D of this AMC and remains compliant with Part M Appendix VIII basic principles.

The content of periodic inspections/checks as well as their periodicity is not regulated or standardised in an aviation specification. It is the decision of the manufacturer/Type Certificate Holder (TCH) to recommend a schedule for each specific type of inspection/check.

For an inspection/check with the same periodicity for different TCHs, the content may differ, and in some cases may be critically safety-related and may need the use of special tools or knowledge and thus would not qualify for Pilot-owner maintenance. Therefore, the maintenance carried out by the Pilot-owner cannot be generalised to specific inspections such as 50 Hrs, 100 Hrs or 6 Month periodicity.

The Inspections to be carried out are limited to those areas and tasks listed in this <u>AMC to Appendix VIII</u>; this allows flexibility in the development of the maintenance programme and does not limit the inspection to certain specific periodic inspections. A 50 Hrs/6 Month periodic inspection for a fixed wing aeroplane as well as the one-year inspection on a glider may normally be eligible for Pilot-owner maintenance.



#### **TABLES**

Note: Tasks in Part A or Part B shown with \*\* exclude IFR operations following Pilot-owner maintenance. For these aircraft to operate under IFR operations, these tasks should be released by an appropriate licensed engineer.

## Part A/ PILOT-OWNER MAINTENANCE TASKS for POWERED AIRCRAFT (AEROPLANES)

	PILOT-OWNER MAINTENANCE TASKS for POWERED AIRCRAFT (AEROPLANES)			
AT A	Area	Task	Aeroplanes <=2 730kg	
09	Towing	Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).	Yes	
		Mirror –Installation and replacement of mirrors.	Yes	
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes	
12	Servicing	Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes	
20	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes	
		Simple Non-Structural Standard Fasteners – Replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting.	Yes	
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes	
23	Communication	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors, excluding IFR operations.	Yes**	
24	Electrical power	Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.	Yes**	
		Wiring – Repairing broken circuits in non critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	
		Bonding – Replacement of broken bonding cable.	Yes	
		Fuses – Replacement with the correct rating.	Yes	
25	Equipment	Safety Belts – Replacement of safety belts and harnesses excluding belts fitted with airbag systems.	Yes	
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.	Yes	
		Non-essential instruments and/or equipment - Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes	
		Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems.	Yes	
		ELT – Removal/Reinstallation.	Yes	
27	Flight controls	Removal or reinstallation of co-pilot control column and rudder pedals where provision for quick disconnect is made by design.	Yes	
28	Fuel System	Fuel Filter elements – Cleaning and/or replacement.	Yes	
30	Ice and Rain Protection	Windscreen Wiper – Replacement of wiper blade.	Yes	



	PILOT-OV	VNER MAINTENANCE TASKS for POWERED AIRCRAFT (AEROPLANES)	
AT A	Area	Task	Aeroplanes <=2 730kg
31	Instruments	Instrument Panel – Removal and reinstallation provided this it is a design feature with quick disconnect connectors, excluding IFR operations.	Yes**
		Pitot Static System – Simple sense and leak check, excluding IFR operations.	Yes**
		Drainage – Drainage of water drainage traps or filters within the Pitot Static system excluding IFR operations.	Yes**
		Instruments – Check for legibility of markings and those readings are consistent with ambient conditions.	Yes
32	Landing Gear	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes
		Servicing – Replenishment of hydraulic fluid	Yes
		Shock Absorber – Replacement of elastic cords or rubber dampers.	Yes
		Shock Struts – Replenishment of oil or air.	Yes
		Skis – Changing between wheel and ski landing gear.	Yes
		Landing skids – Replacement of landing skids and skid shoes.	Yes
		Wheel fairings (spats) – Removal and reinstallation.	Yes
		Mechanical brakes – Adjustment of simple cable operated systems.	Yes
		Brake – Replacement of worn brake pads.	Yes
33	Lights	Lights – Replacement of internal and external bulbs, filaments, reflectors and lenses.	Yes
34	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders.	Yes
		Navigation devices – Removal and replacement of self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system and IFR operations.	Yes**
		Self contained data logger – Installation, data restoration.	Yes
51	Structure	Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.	Yes
		Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes
		Surface finish - Minor restoration where no disassembly of any primary structure or operating system is involved This includes application of signal coatings or thin foils as well as registration markings.	Yes
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour.	Yes
52	Doors and Hatches	Doors - Removal and reinstallation	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes

	PILOT-OWNER MAINTENANCE TASKS for POWERED AIRCRAFT (AEROPLANES)				
AT A	Area	Task	Aeroplanes <=2 730kg		
56	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process	Yes		
61	Propeller	Spinner – Removal and reinstallation.	Yes		
71	Powerplant installation	Cowling – Removal and reinstallation not requiring removal of propeller or disconnection of flight controls.	Yes		
		Induction System – Inspection and replacement of induction air filter.	Yes		
72	Engine	Chip detectors – Removal, checking and reinstallation provided the chip detector is a self-sealing type and not electrically indicated.	Yes		
73	Engine fuel	Strainer or Filter elements – Cleaning and/or replacement.	Yes		
		Fuel - Mixing of required oil into fuel.	Yes		
74	Ignition	Spark Plugs – Removal, cleaning, adjustment and reinstallation.	Yes		
75	Cooling	Coolant - Replenishment of coolant fluid.	Yes		
77	Engine Indicating	Engine Indicating – Removal and replacement of self contained, instrument panel mount indicators that have quick-release connectors and do not employ direct reading connections.	Yes		
79	Oil System	Strainer or filter elements – Cleaning and/or replacement.	Yes		
		Oil – Changing or replenishment of engine oil and gearbox fluid.	Yes		



## Part B/ PILOT-OWNER MAINTENANCE TASKS for ROTORCRAFT

PILOT	-OWNER MAINTEN	IANCE TASKS for ROTORCRAFT	
АТА	Area	Task	Single Engine Rotorcraft <=2 730kg
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes
12	Servicing	Fuel, oil, hydraulic, de-iced and windshield liquid replenishment.	Yes
		Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes
20	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes
		Simple non-structural standard fasteners – Replacement and adjustment, excluding latches and the replacement of receptacles and anchor nuts requiring riveting.	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes
23	Communication	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors, excluding IFR operations.	Yes**
24	Electrical power	Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.	Yes**
		Wiring – Repairing broken circuits in noncritical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes
		Bonding – Replacement of broken bonding cable excluding bonding on rotating parts and flying controls.	Yes
		Fuses – Replacement with the correct rating.	Yes
25	Equipment	Safety Belts - Replacement of safety belts and harnesses excluding belts fitted with airbag systems.	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system excluding flight crew seats.	Yes
		Removal/installation of emergency flotation gears with quick disconnect connectors.	Yes
		Non-essential instruments and/or equipment - Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes
		ELT - Removal/Reinstallation.	Yes
30	Ice and rain protection	Windshield wiper replacement	Yes
31	Instruments	Instrument Panel—Removal and reinstallation provided this it is a design feature with quick disconnect connectors, excluding IFR operations.	Yes**
		Pitot Static System – Simple sense and leak check, excluding IFR operations.	Yes**
		Drainage – Drainage of water drainage traps or filters within the Pitot Static system excluding IFR operations.	Yes**



PILOT-OWNER MAINTENANCE TASKS for ROTORCRAFT				
АТА	Area	Task	Single Engine Rotorcraft <=2 730kg	
		Instruments – Check for legibility of markings and those readings are consistent with ambient conditions.	Yes	
32	Landing Gears	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes	
		Replacement of skid wear shoes.	Yes	
		Fit and remove snow landing pads.	Yes	
		Servicing – Replenishment of hydraulic fluid.	Yes	
		Brake – Replacement of worn brake pads.	Yes	
33	Lights	Lights – replacement of internal and external bulbs, filaments, reflectors and lenses.	Yes	
34	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders.	Yes	
		Navigation devices – Remove and replace self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system and IFR operations.	Yes**	
		Self contained data logger – Installation, data restoration.	Yes	
51	Structure	Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes	
		Surface finish - Minor restoration where no disassembly of any primary structure or operating system is involved, excluding intervention on main and tail rotors. This includes application of signal coatings or thin foils as well as Registration markings.	Yes	
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour.	Yes	
52	Doors	Doors - Removal and reinstallation.	Yes	
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes	
56	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process.	Yes	
62	Main rotor	Removal/installation of main rotor blades that are designed for removal where special tools are not required (tail rotor blades excluded) limited to installation of the same blades previously removed refitted in the original position.	Yes	
63 65	Transmission	Chip detectors – Remove, check and replace provided the chip detector is a self-sealing type and not electrically indicated.	Yes	
67	Flight control	Removal or reinstallation of co-pilot cyclic and collective controls and yaw pedals where provision for quick disconnect is made by design.	Yes	
71	Powerplant installation	Cowlings - Removal and re-fitment.	Yes	
72	Engine	Chip detectors –removal, checking and reinstallation provided the chip detector is a self sealing type and not electrically indicated.	Yes	

PILOT-OWNER MAINTENANCE TASKS for ROTORCRAFT					
АТА	Area	Task	Single Engine Rotorcraft <=2 730kg		
79	Oil System	Filter elements – Replacement, provided that the element is of the "spin on/off" type.	Yes		
		Oil - Changing or replenishment of engine oil.	Yes		

## Part C/ PILOT-OWNER MAINTENANCE TASKS for SAILPLANES AND POWERED SAILPLANES

Abbreviations applicable to this Part:

N/A not applicable for this category

SP sailplane

SSPS self-sustained powered sailplane

SLPS/TM self-launching powered sailplane/touring motorglider

	PILOT-OWNER MAINTENANCE TASKS for SAILPLANES AND POWERED SAILPLANES				
ATA	Area	Task	SP	SSPS	SLPS/TM
08	Weighing	Recalculation – Small changes of the Trim plan without needing a reweighing.	Yes	Yes	Yes
09	Towing	Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).	Yes	Yes	Yes
		Mirror - Installation and replacement of mirrors.	Yes	Yes	Yes
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes	Yes	Yes
12	Servicing	Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes	Yes	Yes
20	Standard. Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes	Yes	Yes
		Simple Non-Structural Standard Fasteners – Replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting.	Yes	Yes	Yes
		Free play – Measurement of the free play in the control system and the wing to fuselage attachment including minor adjustments by simple means provided by the manufacturer.	Yes	Yes	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes	Yes	Yes
23	Communication	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors.	Yes	Yes	Yes
24	Electrical power	Batteries and solar panels – Replacement and servicing.	Yes	Yes	Yes
		Wiring - Installation of simple wiring connections to the existing wiring for additional non-required equipment such as electric variometers, flight computers but excluding required communication, navigation systems and engine wiring.	Yes	Yes	Yes
		Wiring – Repairing broken circuits in landing light and any other wiring for non-required equipment such as electrical variometers or flight computers, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	Yes	Yes



	PILOT-OWN	IER MAINTENANCE TASKS for SAILPLANES AND POWERI	ED SAILP	LANES	
ATA	Area	Task	SP	SSPS	SLPS/TM
		Bonding – Replacement of broken bonding cable.	Yes	Yes	Yes
		Switches – This includes soldering and crimping of non- required equipment such as electrical variometers or flight computers, but excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	Yes	Yes
		Fuses – Replacement with the correct rating.	Yes	Yes	Yes
25	Equipment	Safety Belts – Replacement of safety belt and harnesses.	Yes	Yes	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.	Yes	Yes	Yes
		Non-essential instruments and/or equipment - Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes	Yes	Yes
		Removal and installation of non-required instruments and/or equipment.	Yes	Yes	Yes
		Wing Wiper, Cleaner – Servicing, removal and reinstallation not involving disassembly or modification of any primary structure, control.	Yes	Yes	Yes
		Static Probes – Removal or reinstallation of variometer static and total energy compensation probes.	Yes	Yes	Yes
		Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems.	Yes	Yes	Yes
		Air Brake Chute – Installation and servicing	Yes	Yes	Yes
		ELT – Removal / Reinstallation.	Yes	Yes	Yes
26	Fire Protection	Fire Warning – Replacement of sensors and indicators.	N/A	Yes	Yes
27	Flight Control	Gap Seals – Installation and servicing if it does not require complete flight control removal.	Yes	Yes	Yes
		Control System – Measurement of the control system travel without removing the control surfaces.	Yes	Yes	Yes
		Control Cables – Simple optical Inspection for Condition.	Yes	Yes	Yes
		Gas Dampener – Replacement of Gas Dampener in the Control or Air Brake System.	Yes	Yes	Yes
		Co-pilot stick and pedals - Removal or reinstallation where provision for quick disconnect is made by design.	Yes	Yes	Yes
28	Fuel System	Fuel lines – Replacement of prefabricated fuel lines fitted with self-sealing couplings.	N/A	Yes	NO
		Fuel Filter – Cleaning and/or replacement.	N/A	Yes	Yes
31	Instruments	Instrument Panel—Removal and reinstallation provided this is a design feature with quick disconnect, excluding IFR operations.	Yes	Yes	Yes
		Pitot Static System – Simple sense and leak check.	Yes	Yes	Yes



	PILOT-OWN	IER MAINTENANCE TASKS for SAILPLANES AND POWERI	ED SAILP	LANES	
ATA	Area	Task	SP	SSPS	SLPS/TM
		Instrument Panel vibration damper/shock absorbers-Replacement.	Yes	Yes	Yes
		Drainage – Drainage of water drainage traps or filters within the Pitot static system.	Yes	Yes	Yes
		Flexible tubes - Replacement of damaged tubes.	Yes	Yes	Yes
32	Landing Gear	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes	Yes	Yes
		Servicing – Replenishment of hydraulic fluid	Yes	Yes	Yes
		Shock Absorber – Replacement or servicing of elastic cords or rubber dampers.	Yes	Yes	Yes
		Shock Struts – Replenishment of oil or air.	Yes	Yes	Yes
		Landing gear doors - Removal or reinstallation and repair including operating straps.	Yes	Yes	Yes
		Skis – Changing between wheel and ski landing gear.	Yes	Yes	Yes
		Skids – Removal or reinstallation and servicing of main, wing and tail skids.	Yes	Yes	Yes
		Wheels fairing (spats) – Removal and reinstallation.	Yes	Yes	Yes
		Mechanical brakes – Adjustment of simple cable operated systems.	Yes	Yes	Yes
		Brake – Replacement of worn brake pads.	Yes	Yes	Yes
		Springs – Replacement of worn or aged springs.	Yes	Yes	Yes
		Gear Warning –Removal or reinstallation of simple gear warning systems.	Yes	Yes	Yes
33	Lights	Lights – Replacement of internal and external bulbs, filaments, reflectors and lenses.	N/A	N/A	Yes
34	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders and including update of non-required instruments/equipment.	Yes	Yes	Yes
		Navigation devices – Removal and replacement of self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system.	Yes	Yes	Yes
		Self contained data logger – Installation, data restoration.	Yes	Yes	Yes
51	Structure	Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.	Yes	Yes	Yes
		Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes	Yes	Yes
		Surface finish - Minor restoration of paint or coating where the underlying primary structure is not affected. This includes application of signal coatings or thin foils as well as Registration markings.	Yes	Yes	Yes



PILOT-OWNER MAINTENANCE TASKS for SAILPLANES AND POWERED SAILPLANES								
ATA	Area	Task	SP	SSPS	SLPS/TM			
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour.	Yes	Yes	Yes			
52	Doors	Doors - Removal and reinstallation.	Yes	Yes	Yes			
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes	Yes	Yes			
56	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process.	Yes	Yes	Yes			
		Canopies - Removal and re-fitment.	Yes	Yes	Yes			
		Gas dampener – Replacement of Canopy Gas dampener.	Yes	Yes	Yes			
57	Wings	Wing Skids – Removal or reinstallation and service of lower wing skids or wing roller including spring assembly.	Yes	Yes	Yes			
		Water ballast – Removal or reinstallation of flexible tanks.	Yes	Yes	Yes			
		Turbulator and sealing tapes – Removal or reinstallation of approved sealing tapes and turbulator tapes.	Yes	Yes	Yes			
61	Propeller	Spinner – Removal and reinstallation.	N/A	Yes	Yes			
71	Powerplant installation	Removal or installation of Powerplant unit including engine and propeller.	N/A	Yes	NO			
		Cowling - Removal and reinstallation not requiring removal of propeller or disconnection of flight controls.	N/A	Yes	Yes			
		Induction System – Inspection and replacement of induction air filter.	N/A	Yes	Yes			
72	Engine	Chip detectors – Removal, checking and reinstallation provided the chip detector is a self-sealing type and not electrically indicated.	N/A	Yes	Yes			
73	Engine fuel	Strainer or Filter elements – Cleaning and/or replacement.	N/A	Yes	Yes			
		Fuel - Mixing of required oil into fuel.	N/A	Yes	Yes			
74	Ignition	Spark Plugs – Removal, cleaning, adjustment and reinstallation.	N/A	Yes	Yes			
75	Cooling	Coolant – Replenishment of coolant fluid.	N/A	Yes	Yes			
76	Engine Controls	Controls – Minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight.	N/A	Yes	NO			
77	Engine Indicating	Engine Indicating – Removal and replacement of self- contained instrument panel mount indicators that have quick-release connectors and do not employ direct reading connections.	N/A	Yes	Yes			
79	Oil System	Strainer or Filter elements – Cleaning and/or replacement.	N/A	Yes	Yes			
		Oil – Changing or replenishment of engine oil and gearbox fluid.	N/A	Yes	Yes			



## Part D/ PILOT-OWNER MAINTENANCE TASKS for BALLOONS/AIRSHIPS

PILOT-OWNER MAINTENANCE TASKS for BALLOONS/AIRSHIPS								
Area and Task	Hot Air	Hot Air	Gas					
	Airship	Balloon	Balloon					
A) ENVELOPE	v	v						
1- Fabric repairs - excluding complete panels (as defined in, and in accordance with, Type Certificate holders' instructions) not requiring load tape repair or replacement.	Yes	Yes	No					
2- Nose line - Replacement	Yes	N/A	N/A					
3- Banners - fitment, replacement or repair (without sewing).	Yes	Yes	Yes					
4- Melting link (temperature flag) - replacement.	Yes	Yes	N/A					
5- Temperature transmitter and temperature indication cables - removal or reinstallation.	Yes	Yes	N/A					
6- Crown line - replacement (where permanently attached to the crown ring).	No	Yes	N/A					
7- Scoop or skirt-replacement or repair of (including fasteners).	Yes	Yes	N/A					
B) BURNER								
8- Burner - cleaning and lubrication.	Yes	Yes	N/A					
9- Piezo igniters - adjustment.	Yes	Yes	N/A					
10- Burner jets - cleaning and replacement.	Yes	Yes	N/A					
11- Burner frame corner buffers - replacement or reinstallation.	Yes	Yes	N/A					
12- Burner Valves - adjustment of closing valve not requiring special tools or test equipment.	Yes	Yes	N/A					
C) BASKET AND GONDOLA								
13- Basket/gondola frame trim - repair or replacement.	Yes	Yes	Yes					
14- Basket/gondola runners (including wheels) - repair or replacement.	Yes	Yes	Yes					
15- External rope handles - repair.	Yes	Yes	Yes					
16- Replacement of seat covers - upholsteries and safety belts.	Yes	Yes	Yes					
D) FUEL CYLINDER								
17- Liquid valve - replacement of O-rings in the outlet.	Yes	Yes	No					
E) INSTRUMENTS AND EQUIPMENT								
18- Batteries - replacement of for self-contained instruments and communication equipment.	Yes	Yes	Yes					
19- Communication, navigation devices, instruments and/or equipment — Remove and replace self-contained, instrument panel mounted communication devices with quick disconnect connectors.	Yes	Yes	Yes					
F) ENGINES								
20- Cleaning and Lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings and fairings.	Yes	N/A	N/A					
21- Cowling-removal and re-fitment not requiring removal of the propeller	Yes	N/A	N/A					
22- Fuel and oil strainers and/or filter elements - Removal, cleaning and/or replacement	Yes	N/A	N/A					
23- Batteries - replacing and servicing (excluding servicing of Ni-Cd batteries).	Yes	N/A	N/A					
24- Propeller Spinner – removal and installation for inspection.	Yes	N/A	N/A					
25- Powerplant - Removal or installation of powerplant unit including engine and propeller.	Yes	N/A	N/A					
26- Engine- Chip detectors – remove, check and replace.	Yes	N/A	N/A					

PILOT-OWNER MAINTENANCE TASKS for BALLOONS/AIRSHIPS							
Area and Task	Hot Air Airship	Hot Air Balloon	Gas Balloon				
27- Ignition Spark Plug – removal or installation and adjustment including gap clearance.	Yes	N/A	N/A				
28- Coolant fluid - replenishment.		N/A	N/A				
29- Engine Controls - minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight.	Yes	N/A	N/A				
30- Engine instruments - removal and replacement.		N/A	N/A				
31- Lubrication oil – changing or replenishment of engine oil and gearbox fluid.		N/A	N/A				
32- Fuel lines - replacement of prefabricated hoses with self- sealing couplings.	Yes	N/A	N/A				
33- Air filters (if installed) – removal, cleaning and replacement.	Yes	N/A	N/A				



# **APPENDICES TO AMC AND GM TO ANNEX I (PART-M)**

# Appendix I to AMC M.A.302 and AMC M.B.301(b) — Content of the maintenance programme

ED Decision 2020/023/

Note: For the purpose of this Appendix, references to CAMO should be understood as references to CAMO or CAO and references to Part145 organisations should be understood as references to Subpart F or Part-CAO organisations.

#### 1. General requirements

- 1.1. The maintenance programme should contain the following basic information.
  - 1.1.1. The type/model and registration number of the aircraft, engines and, where applicable, auxiliary power units and propellers.
  - 1.1.2. The name and address of the owner, operator or CAMO managing the aircraft airworthiness.
  - 1.1.3. The reference, the date of issue and issue number of the approved maintenance programme.
  - 1.1.4. A statement signed by the owner, operator or CAMO managing the aircraft airworthiness to the effect that the specified aircraft will be maintained to the programme and that the programme will be reviewed and updated as required.
  - 1.1.5. Contents/list of effective pages and their revision status of the document.
  - 1.1.6. Check periods, which reflect the anticipated utilisation of the aircraft. Such utilisation should be stated and include a tolerance of not more than 25%. Where utilisation cannot be anticipated, calendar time limits should also be included.
  - 1.1.7. Procedures for the escalation of established check periods, where applicable and acceptable to the competent authority of registry.
  - 1.1.8. Provision to record the date and reference of approved amendments incorporated in the maintenance programme.
  - 1.1.9. Details of pre-flight maintenance tasks that are accomplished by maintenance staff.
  - 1.1.10. The tasks and the periods (intervals/frequencies) at which each part of the aircraft, engines, APU's, propellers, components, accessories, equipment, instruments, electrical and radio apparatus, together with the associated systems and installations should be inspected. This should include the type and degree of inspection required.
  - 1.1.11. The periods at which components should be checked, cleaned, lubricated, replenished, adjusted and tested.
  - 1.1.12. If applicable details of ageing aircraft system requirements together with any specified sampling programmes.
  - 1.1.13. If applicable, details of specific structural maintenance programmes including, but not limited to:
    - (a) (supplemental) structural inspection programmes ((S)SIPs or (supplemental) structural inspection documents (S)SIDs) issued by the design approval holder.

Annex I (Part-M)

APPENDICES TO AMC AND GM TO

ANNEX I (Part-M)

- (b) Corrosion prevention and control programmes (CPCPs) taking into account the baseline CPCP issued by the design approval holder.
- (c) For large aeroplanes, maintenance data arising from compliance with the ageing structure requirements of point 26.370 of Annex I (Part-26) to Regulation (EU) 2015/640.
- 1.1.14. If applicable, details of Critical Design Configuration Control Limitations together with appropriate procedures.
- 1.1.15. If applicable a statement of the limit of validity in terms of total flight cycles/calendar date/flight hours for the structural programme in 1.1.13.
- 1.1.16. The periods at which overhauls and/or replacements by new or overhauled components should be made.
- 1.1.17. A cross-reference to other documents approved by EASA which contain the details of maintenance tasks related to mandatory life and inspection limitations, Certification Maintenance Requirements (CMRs) and ADs.
- Note: To prevent inadvertent variations to such tasks or intervals these items should not be included in the main portion of the maintenance programme document, or any planning control system, without specific identification of their mandatory status.
- 1.1.18. Details of, or cross-reference to, any required reliability programme or statistical methods of continuous Surveillance.
- 1.1.19. A statement that practices and procedures to satisfy the programme should be to the standards specified in the TC holder's Maintenance Instructions. In the case of approved practices and procedures that differ, the statement should refer to them.
- 1.1.20. Each maintenance task quoted should be defined in a definition section of the programme.

#### 2. Programme basis

- 2.1. An owner or a CAMO aircraft maintenance programme should normally be based upon the MRB report, where applicable, and the TC holder's maintenance planning document or Chapter 5 of the maintenance manual, (i.e. the manufacturer's recommended maintenance programme).
  - The structure and format of these maintenance recommendations may be re-written by the owner or the CAMO to better suit the operation and control of the particular maintenance programme.
- 2.2. For a newly type-certificated aircraft where no previously approved maintenance programme exists, it will be necessary for the owner or the CAMO to comprehensively appraise the manufacturer's recommendations (and the MRB report where applicable), together with other airworthiness information, in order to produce a realistic programme for approval.
- 2.3. For existing aircraft types it is permissible for the owner or CAMO to make comparisons with maintenance programmes previously approved. It should not be assumed that a programme approved for one owner or the CAMO would automatically be approved for another.
  - Evaluation should be made of the aircraft/fleet utilisation, landing rate, equipment fit and, in particular, the experience of the owner or the CAMO when assessing an existing programme.
  - Where the competent authority is not satisfied that the proposed maintenance programme can be used as is, the competent authority should request appropriate changes such as additional maintenance tasks or de-escalation of check frequencies as necessary.

#### 2.4. Critical Design Configuration Control Limitations (CDCCL)

If CDCCL have been identified for the aircraft type by the TC/STC holder, maintenance instructions should be developed. CDCCL's are characterised by features in an aircraft installation or component that should be retained during modification, change, repair, or scheduled maintenance for the operational life of the aircraft or applicable component or part.

#### 3. Amendments

Amendments (revisions) to the approved maintenance programme should be made by the owner or the CAMO, to reflect changes in the TC holder's recommendations, modifications, service experience, or as required by the competent authority.

#### 4. Permitted variations to maintenance periods

The owner or the CAMO may only vary the periods prescribed by the programme with the approval of the competent authority or through a procedure developed in the maintenance programme and approved by the competent authority.

#### 5. Periodic review of maintenance programme contents

- 5.1. The owner or the CAMO approved maintenance programmes should be subject to periodic review to ensure that they reflect current TC holder's recommendations, revisions to the MRB report if applicable, mandatory requirements and the maintenance needs of the aircraft.
- 5.2. The owner or the CAMO should review the detailed requirements at least annually for continued validity in the light of operating experience.

#### 6. Reliability Programmes

#### 6.1. Applicability

- 6.1.1. A reliability programme should be developed in the following cases:
  - (a) the aircraft maintenance programme is based upon MSG-3 logic;
  - (b) the aircraft maintenance programme includes condition monitored components;
  - (c) the aircraft maintenance programme does not contain overhaul time periods for all significant system components;
  - (d) when specified by the Manufacturer's maintenance planning document or MRB.
- 6.1.2. A reliability Programme need not be developed in the following cases:
  - (a) the maintenance programme is based upon the MSG-1 or 2 logic but only contains hard time or on condition items;
  - (b) the aircraft is not a complex motor-powered aircraft according to <a href="Part-M">Part-M</a>;
  - (c) the aircraft maintenance programme provides overhaul time periods for all significant system components;
  - (d) Note: for the purpose of this paragraph, a significant system is a system the failure of which could hazard the aircraft safety.
- 6.1.3. Notwithstanding paragraphs 6.1.1 and 6.1.2 above, a CAMO may however, develop its own reliability monitoring programme when it may be deemed beneficial from a maintenance planning point of view.

- 6.2. Applicability for CAMO/operator of small fleets of aircraft.
  - 6.2.1. For the purpose of this paragraph, a small fleet of aircraft is a fleet of less than 6 aircraft of the same type.
  - 6.2.2. The requirement for a reliability programme is irrespective of the CAMO fleet size.
  - 6.2.3. Complex reliability programmes could be inappropriate for a small fleet. It is recommended that such CAMOs tailor their reliability programmes to suit the size and complexity of operation.
  - 6.2.4. One difficulty with a small fleet of aircraft consists in the amount of available data which can be processed: when this amount is too low, the calculation of alert level is very coarse. Therefore 'alert levels' should be used carefully.
  - 6.2.5. A CAMO of a small fleet of aircraft, when establishing a reliability programme, should consider the following:
    - (a) The programme should focus on areas where a sufficient amount of data is likely to be processed.
    - (b) When the amount of available data is very limited, the CAMO engineering judgement is then a vital element. In the following examples, careful engineering analysis should be exercised before taking decisions:
      - A '0' rate in the statistical calculation may possibly simply reveal that enough statistical data is missing, rather that there is no potential problem.
      - When alert levels are used, a single event may have the figures reach the alert level. Engineering judgement is necessary so as to discriminate an artefact from an actual need for a corrective action.

In making his engineering judgement, a CAMO is encouraged to establish contact and make comparisons with other CAMOs of the same aircraft, where possible and relevant. Making comparison with data provided by the manufacturer may also be possible.

- 6.2.6. In order to obtain accurate reliability data, it should be recommended to pool data and analysis with one or more other CAMO(s). Paragraph 6.6 of this paragraph specifies under which conditions it is acceptable that CAMOs share reliability data.
- 6.2.7. Notwithstanding the above there are cases where the CAMO will be unable to pool data with other CAMO, e.g. at the introduction to service of a new type. In that case the competent authority should impose additional restrictions on the MRB/MPD tasks intervals (e.g. no variations or only minor evolution are possible, and with the competent authority approval).

#### 6.3. Engineering judgement

- 6.3.1. Engineering judgement is itself inherent to reliability programmes as no interpretation of data is possible without judgement. In approving the CAMO maintenance and reliability programmes, the competent authority is expected to ensure that the organisation which runs the programme (it may be CAMO, or an <a href="Part-145">Part-145</a> organisation under contract) hires sufficiently qualified personnel with appropriate engineering experience and understanding of reliability concept (see <a href="AMC M.A.706">AMC M.A.706</a>).
- 6.3.2. It follows that failure to provide appropriately qualified personnel for the reliability programme may lead the competent authority to reject the approval of the reliability programme and therefore the aircraft maintenance programme.

#### 6.4. Contracted maintenance

6.4.1. Whereas M.A.302 specifies that, the aircraft maintenance programme -which includes the associated reliability programme-, should be managed and presented by the CAMO to the competent authority, the CAMO may subcontract certain functions to the maintenance organisation under contract, provided this organisation proves to have the appropriate expertise.

#### 6.4.2. These functions are:

- (a) Developing the aircraft maintenance and reliability programmes,
- (b) Performing the collection and analysis of the reliability data,
- (c) Providing reliability reports, and
- (d) Proposing corrective actions to the CAMO.
- 6.4.3. Notwithstanding the above decision to implement a corrective action (or the decision to request from the competent authority the approval to implement a corrective action) remains the CAMO prerogative and responsibility. In relation to paragraph 6.4.2(d) above, a decision not to implement a corrective action should be justified and documented.
- 6.4.4. The arrangement between the CAMO and the maintenance organisation should be specified in the maintenance contract (see <u>Appendix XI to AMC M.A.708(c)</u>) and the relevant CAME, and maintenance organisation procedures.

#### 6.5. Reliability programme

In preparing the programme details, account should be taken of this paragraph. All associated procedures should be clearly defined.

#### 6.5.1. Objectives

- 6.5.1.1. A statement should be included summarising as precisely as possible the prime objectives of the programme. To the minimum it should include the following:
  - (a) to recognise the need for corrective action,
  - (b) to establish what corrective action is needed and,
  - (c) to determine the effectiveness of that action.
- 6.5.1.2. The extent of the objectives should be directly related to the scope of the programme. Its scope could vary from a component defect monitoring system for a small CAMO, to an integrated maintenance management programme for a big CAMO. The manufacturer's maintenance planning documents may give guidance on the objectives and should be consulted in every case.
- 6.5.1.3. In case of a MSG-3 based maintenance programme, the reliability programme should provide a monitor that all MSG-3 related tasks from the maintenance programme are effective and their periodicity is adequate.

#### 6.5.2. Identification of items.

The items controlled by the programme should be stated, e.g. by ATA Chapters. Where some items (e.g. aircraft structure, engines, APU) are controlled by separate programmes, the associated procedures (e.g. individual sampling or life development

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programmes, constructor's structure sampling programmes) should be cross referenced in the programme.

#### 6.5.3. Terms and definitions.

The significant terms and definitions applicable to the Programme should be clearly identified. Terms are already defined in MSG-3, Part-145 and Part-M.

- 6.5.4. Information sources and collection.
  - 6.5.4.1. Sources of information should be listed and procedures for the transmission of information from the sources, together with the procedure for collecting and receiving it, should be set out in detail in the CAME or MOE as appropriate.
  - 6.5.4.2. The type of information to be collected should be related to the objectives of the Programme and should be such that it enables both an overall broad based assessment of the information to be made and also allow for assessments to be made as to whether any reaction, both to trends and to individual events, is necessary. The following are examples of the normal prime sources:
    - (a) Pilots Reports.
    - (b) Technical Logs.
    - (c) Aircraft Maintenance Access Terminal / On-board Maintenance System readouts.
    - (d) Maintenance Worksheets.
    - (e) Workshop Reports.
    - (f) Reports on Functional Checks.
    - (g) Reports on Special Inspections.
    - (h) Stores Issues/Reports.
    - (i) Air Safety Reports.
    - (j) Reports on Technical Delays and Incidents.
    - (k) Other sources: ETOPS, RVSM, CAT II/III.
  - 6.5.4.3. In addition to the normal prime sources of information, due account should be taken of continuing airworthiness and safety information promulgated under Part-21.

#### 6.5.5. Display of information.

Collected information may be displayed graphically or in a tabular format or a combination of both. The rules governing any separation or discarding of information prior to incorporation into these formats should be stated. The format should be such that the identification of trends, specific highlights and related events would be readily apparent.

- 6.5.5.1. The above display of information should include provisions for 'nil returns' to aid the examination of the total information.
- 6.5.5.2. Where 'standards' or 'alert levels' are included in the programme, the display of information should be oriented accordingly.

6.5.6. Examination, analysis and interpretation of the information.

The method employed for examining, analysing and interpreting the programme information should be explained.

#### 6.5.6.1. Examination.

Methods of examination of information may be varied according to the content and quantity of information of individual programmes. These can range from examination of the initial indication of performance variations to formalised detailed procedures at specific periods, and the methods should be fully described in the programme documentation.

#### 6.5.6.2. Analysis and Interpretation.

The procedures for analysis and interpretation of information should be such as to enable the performance of the items controlled by the programme to be measured; they should also facilitate recognition, diagnosis and recording of significant problems. The whole process should be such as to enable a critical assessment to be made of the effectiveness of the programme as a total activity. Such a process may involve:

- (a) Comparisons of operational reliability with established or allocated standards (in the initial period these could be obtained from in-service experience of similar equipment of aircraft types).
- (b) Analysis and interpretation of trends.
- (c) The evaluation of repetitive defects.
- (d) Confidence testing of expected and achieved results.
- (e) Studies of life-bands and survival characteristics.
- (f) Reliability predictions.
- (g) Other methods of assessment.
- 6.5.6.3. The range and depth of engineering analysis and interpretation should be related to the particular programme and to the facilities available. The following, at least, should be taken into account:
  - (a) Flight defects and reductions in operational reliability.
  - (b) Defects occurring on-line and at main base.
  - (c) Deterioration observed during routine maintenance.
  - (d) Workshop and overhaul facility findings.
  - (e) Modification evaluations.
  - (f) Sampling programmes.
  - (g) The adequacy of maintenance equipment and publications.
  - (h) The effectiveness of maintenance procedures.
  - (i) Staff training.
  - (j) Service bulletins, technical instructions, etc.

6.5.6.4. Where the CAMO relies upon contracted maintenance and/or overhaul facilities as an information input to the programme, the arrangements for availability and continuity of such information should be established and details should be included.

#### 6.5.7. Corrective Actions.

- 6.5.7.1. The procedures and time scales both for implementing corrective actions and for monitoring the effects of corrective actions should be fully described. Corrective actions shall correct any reduction in reliability revealed by the programme and could take the form of:
  - (a) Changes to maintenance, operational procedures or techniques.
  - (b) Maintenance changes involving inspection frequency and content, function checks, overhaul requirements and time limits, which will require amendment of the scheduled maintenance periods or tasks in the approved maintenance programme. This may include escalation or de-escalation of tasks, addition, modification or deletion of tasks.
  - (c) Amendments to approved manuals (e.g. maintenance manual, crew manual).
  - (d) Initiation of modifications.
  - (e) Special inspections of fleet campaigns.
  - (f) Spares provisioning.
  - (g) Staff training.
  - (h) Manpower and equipment planning.

<u>Note</u>: Some of the above corrective actions may need the competent authority's approval before implementation.

- 6.5.7.2. The procedures for effecting changes to the maintenance programme should be described, and the associated documentation should include a planned completion date for each corrective action, where applicable.
- 6.5.8. Organisational Responsibilities.

The organisational structure and the department responsible for the administration of the programme should be stated. The chains of responsibility for individuals and departments (Engineering, Production, Quality, Operations etc.) in respect of the programme, together with the information and functions of any programme control committees (reliability group), should be defined. Participation of the competent authority should be stated. This information should be contained in the CAME as appropriate.

6.5.9. Presentation of information to the competent authority.

The following information should be submitted to the competent authority for approval as part of the reliability programme:

- (a) The format and content of routine reports.
- (b) The time scales for the production of reports together with their distribution.

(c) The format and content of reports supporting request for increases in periods between maintenance (escalation) and for amendments to the approved maintenance programme. These reports should contain sufficient detailed information to enable the competent authority to make its own evaluation where necessary.

#### 6.5.10. Evaluation and review.

Each programme should describe the procedures and individual responsibilities in respect of continuous monitoring of the effectiveness of the programme as a whole. The time periods and the procedures for both routine and non-routine reviews of maintenance control should be detailed (progressive, monthly, quarterly, or annual reviews, procedures following reliability 'standards' or 'alert levels' being exceeded, etc.).

- 6.5.10.1. Each Programme should contain procedures for monitoring and, as necessary, revising the reliability 'standards' or 'alert levels'. The organisational responsibilities for monitoring and revising the 'standards' should be specified together with associated time scales.
- 6.5.10.2. Although not exclusive, the following list gives guidance on the criteria to be taken into account during the review.
  - (a) Utilisation (high/low/seasonal).
  - (b) Fleet commonality.
  - (c) Alert Level adjustment criteria.
  - (d) Adequacy of data.
  - (e) Reliability procedure audit.
  - (f) Staff training.
  - (g) Operational and maintenance procedures.

#### 6.5.11. Approval of maintenance programme amendment

The competent authority may authorise the CAMO to implement in the maintenance programme changes arising from the reliability programme results prior to their formal approval by the authority when satisfied that;

- (a) the Reliability Programme monitors the content of the Maintenance Programme in a comprehensive manner, and
- (b) the procedures associated with the functioning of the 'Reliability Group' provide the assurance that appropriate control is exercised by the CAMO over the internal validation of such changes.

#### 6.6. Pooling Arrangements.

6.6.1. In some cases, in order that sufficient data may be analysed it may be desirable to 'pool' data: i.e. collate data from a number of CAMOs of the same type of aircraft. For the analysis to be valid, the aircraft concerned, mode of operation, and maintenance procedures applied should be substantially the same: variations in utilisation between two CAMOs may, more than anything, fundamentally corrupt the analysis. Although not exhaustive, the following list gives guidance on the primary factors which need to be taken into account.



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- (a) Certification factors, such as: aircraft TCDS compliance (variant)/modification status, including SB compliance.
- (b) Operational Factors, such as: operational environment/utilisation, e.g. low/high/seasonal, etc./respective fleet size operating rules applicable (e.g. ETOPS/RVSM/All Weather etc.)/operating procedures/MEL and MEL utilisation.
- (c) Maintenance factors, such as: aircraft age maintenance procedures; maintenance standards applicable; lubrication procedures and programme; MPD revision or escalation applied or maintenance programme applicable
- 6.6.2. Although it may not be necessary for all of the foregoing to be completely common, it is necessary for a substantial amount of commonality to prevail. Decision should be taken by the competent authority on a case by case basis.
- 6.6.3. In case of a short term lease agreement (less than 6 month) more flexibility against the para 6.6.1 criteria may be granted by the competent authority, so as to allow the owner/CAMO to operate the aircraft under the same programme during the lease agreement effectivity.
- 6.6.4. Changes by any one of the CAMO to the above, requires assessment in order that the pooling benefits can be maintained. Where a CAMO wishes to pool data in this way, the approval of the competent authority should be sought prior to any formal agreement being signed between CAMOs.
- 6.6.5. Whereas this paragraph 6.6 is intended to address the pooling of data directly between CAMOs, it is acceptable that the CAMO participates in a reliability programme managed by the aircraft manufacturer, when the competent authority is satisfied that the manufacturer manages a reliability programme which complies with the intent of this paragraph.

# Appendix II to AMC M.A.711(a)(3) — Subcontracting of continuing airworthiness management tasks

ED Decision 2021/009/R; ED Decision 2020/002/R

#### 1. Subcontracted continuing airworthiness management tasks

- 1.1. To actively control the standards of the subcontracted organisation, the CAMO should employ a person or group of persons who are trained and competent in the disciplines associated with M.A. Subpart G. As such, they are responsible for determining what maintenance is required, when it has to be performed, by whom and to what standard in order to ensure the continuing airworthiness of the aircraft to be operated.
- 1.2. The CAMO should conduct a pre-subcontract audit to establish that the organisation to be subcontracted can achieve the standards required by M.A. Subpart G in connection with those activities to be subcontracted.
- 1.3. The CAMO should ensure that the organisation to be subcontracted has sufficient and qualified personnel who are trained and competent in the functions to be sub-contracted. In assessing the adequacy of personnel resources, the CAMO should consider the particular needs of those activities that are to be subcontracted, while taking into account the subcontracted organisations existing commitments.
- 1.4. To be appropriately approved to subcontract continuing airworthiness management tasks, the CAMO should have procedures for the management control of these arrangements. The continuing airworthiness management exposition should contain relevant procedures to reflect its control of those arrangements made with the sub-contracted organisation.
- 1.5. Subcontracted continuing airworthiness management tasks should be addressed in a contract between the CAMO and the subcontracted organisation. The contract should also specify that the subcontracted organisation is responsible for informing the CAMO, that is in turn responsible for notifying the respective competent authority, of any subsequent changes that affect their ability to fulfil the contract.
- 1.6. The subcontracted organisation should use procedures which set out the manner of fulfilling its responsibilities with regard to the subcontracted activities. Such procedures may be developed by either the subcontracted organisation or the CAMO.
- 1.7. Where the subcontracted organisation develops its own procedures, they should be compatible with the continuing airworthiness management exposition and the terms of the contract. These should be accepted by the competent authority as extended procedures of the CAMO and as such should be cross-referenced from the continuing airworthiness management exposition. One current copy of the subcontracted organisation's relevant procedures should be kept by the CAMO and should be accessible to the competent authority when needed.
  - Note: Should any conflict arise between the subcontracted organisation's procedures and those of the CAMO, then the policy and procedures of the continuing airworthiness management exposition will prevail.
- 1.8. The contract should also specify that the subcontracted organisation's procedures may only be amended with the agreement of the CAMO. The CAMO should ensure that these amendments are compatible with its continuing airworthiness management exposition and comply with <u>M.A. Subpart G.</u>
  - The CAMO should nominate the person responsible for continued monitoring and acceptance of the subcontracted organisation's procedures and their amendments. The controls used to

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fulfil this function should be clearly set out in the amendment section of the continuing airworthiness management exposition detailing the level of CAMO involvement.

1.9. Whenever any elements of the continuing airworthiness management tasks are subcontracted, the CAMO personnel should have access to all relevant data in order to fulfil their responsibilities.

Note: The CAMO retains the authority to override, whenever necessary for the continuing airworthiness of their aircraft, any recommendation of the subcontracted organisation.

- 1.10. The CAMO should ensure that the subcontracted organisation continues to have qualified technical expertise and sufficient resources to perform the sub-contracted tasks while complying with the relevant procedures. Failure to do so may invalidate the CAMO approval.
- 1.11. The contract should provide for competent authority monitoring.
- 1.12. The contract should address the respective responsibilities to ensure that any findings arising from the competent authority monitoring will be closed to the satisfaction of the competent authority.

#### 2. Accomplishment

This paragraph describes the topics which may be applicable to such subcontracting arrangements.

#### 2.1. Scope of work

The type of aircraft and their registrations, engine types and/or components subject to the continuing airworthiness management tasks contract should be specified.

2.2. Maintenance programme development and amendment

The CAMO may subcontract the preparation of the draft maintenance programme and any subsequent amendments. However, the CAMO remains responsible for assessing that the draft proposals meet its needs and for obtaining competent authority approval; the relevant procedures should specify these responsibilities. The contract should also stipulate that any data necessary to substantiate the approval of the initial programme or an amendment to this programme should be provided for CAMO agreement and/or competent authority upon request.

2.3. Maintenance programme effectiveness and reliability

The CAMO should have a system in place to monitor and assess the effectiveness of the maintenance programme based on maintenance and operational experience. The collection of data and initial assessment may be made by the subcontracted organisation; the required actions are to be endorsed by the CAMO.

Where reliability monitoring is used to establish the effectiveness of the maintenance programme, this may be provided by the subcontracted organisation and should be specified in the relevant procedures. Reference should be made to the approved maintenance and reliability programme. Participation of the CAMO's personnel in reliability meetings with the subcontracted organisation should also be specified.

When providing reliability data, the subcontracted organisation is limited to working with primary data/documents provided by the CAMO or data provided by the CAMO's contracted maintenance organisation(s) from which the reports are derived. The pooling of reliability data is permitted if it is acceptable to the competent authority.

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#### 2.4. Permitted variations to the maintenance programme

The reasons and justification for any proposed variation to scheduled maintenance may be prepared by the subcontracted organisation. Acceptance of the proposed variation should be granted by the CAMO. The means by which the CAMO acceptance is given should be specified in the relevant procedures. When outside the limits set out in the maintenance programme, the CAMO is required to obtain approval by the competent authority.

#### 2.5. Scheduled maintenance

Where the subcontracted organisation plans and defines maintenance checks or inspections in accordance with the approved maintenance programme, the required liaison with the CAMO, including feedback, should be defined.

The planning control and documentation should be specified in the appropriate supporting procedures. These procedures should typically set out the CAMO's level of involvement in each type of check. This will normally involve the CAMO assessing and agreeing to a work specification on a case-by-case basis for base maintenance checks. For routine line maintenance checks, this may be controlled on a day-to-day basis by the subcontracted organisation subject to appropriate liaison and CAMO controls to ensure timely compliance. This may typically include but is not necessarily limited to:

- applicable work package, including job cards;
- scheduled component removal list;
- ADs to be incorporated;
- modifications to be incorporated.

The associated procedures should ensure that the CAMO is informed in a timely manner on the accomplishment of such tasks.

#### 2.6. Quality monitoring

The CAMO's quality system should monitor the adequacy of the subcontracted continuing airworthiness management task performance for compliance with the contract and with M.A. Subpart G. The terms of the contract should therefore include a provision allowing the CAMO to perform a quality surveillance (including audits) of the subcontracted organisation. The aim of the surveillance is primarily to investigate and judge the effectiveness of those subcontracted activities and thereby to ensure compliance with M.A Subpart G and the contract. Audit reports may be subject to review when requested by the competent authority.

#### 2.7. Access to the competent authority

The contract should specify that the subcontracted organisation should always grant access to the competent authority.

#### 2.8. Maintenance data

The maintenance data used for the purpose of the contract should be specified, together with those responsible for providing such documentation and the competent authority responsible for the acceptance/approval of such data, when applicable. The CAMO should ensure that such data, including revisions, is readily available to the CAMO personnel and to those in the subcontracted organisation who may be required to assess such data. The CAMO should establish a 'fast track' means to ensure that urgent data is transmitted to the subcontractor in a timely manner. Maintenance data may include but is not necessarily limited to:

the maintenance programme,

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- airworthiness directives,
- service bulletins,
- major repairs/modification data,
- aircraft maintenance manual,
- engine overhaul manual,
- aircraft illustrated parts catalogue (IPC),
- wiring diagrams,
- troubleshooting manual.

#### 2.8. Maintenance data

The maintenance data used for the purpose of the contract should be specified, together with those responsible for providing such documentation and the competent authority responsible for the acceptance/approval of such data, when applicable. The CAMO should ensure that such data, including revisions, is readily available to the CAMO personnel and to those in the subcontracted organisation who may be required to assess such data. The CAMO should establish a 'fast track' means to ensure that urgent data is transmitted to the subcontractor in a timely manner. Maintenance data is defined in M.A.401(b) or ML.A.401(b).

[applicable from 18 May 2022]

#### 2.9. Airworthiness directives (ADs)

While the various aspects of AD assessment, planning and follow-up may be accomplished by the subcontracted organisation, AD embodiment is performed by a maintenance organisation. The CAMO is responsible for ensuring timely embodiment of the applicable ADs and is to be provided with notification of compliance. It, therefore, follows that the CAMO should have clear policies and procedures on AD embodiment supported by defined procedures which will ensure that the CAMO agrees to the proposed means of compliance.

The relevant procedures should specify:

- what information (e.g. AD publications, continuing airworthiness records, flight hours/cycles, etc.) the subcontracted organisation needs from the CAMO;
- what information (e.g. AD planning listing, detailed engineering order, etc.) the CAMO needs from the subcontracted organisation in order to ensure timely compliance with the ADs.

To fulfil the above responsibility, the CAMO should ensure that it receives current mandatory continued airworthiness information for the aircraft and equipment it is managing.

## 2.10. Service bulletin (SB) modifications

The subcontracted organisation may be required to review and make recommendations on the embodiment of an SB and other associated non-mandatory material based on a clear policy established by the CAMO. This should be specified in the contract.

2.11. Mandatory life limitation or scheduled maintenance controls and component control/removal forecast

Where the subcontracted organisation performs planning activities, it should be specified that the organisation should receive the current flight cycles, flight hours, landings and/or calendar controlled details, as applicable, at a frequency to be specified in the contract. The frequency

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should be such that it allows the organisation to properly perform the subcontracted planning functions. It, therefore, follows that there will need to be adequate liaison between the CAMO, the contracted maintenance organisation(s) and the subcontracted organisation. Additionally, the contract should specify how the CAMO will be in possession of all current flight cycles, flight hours, etc., so that it may assure the timely accomplishment of the required maintenance.

#### 2.12. Engine health monitoring

If the CAMO subcontracts the on-wing engine health monitoring, the subcontracted organisation should receive all the relevant information to perform this task, including any parameter reading deemed necessary to be supplied by the CAMO for this control. The contract should also specify what kind of feedback information (such as engine limitation, appropriate technical advice, etc.) the organisation should provide to the CAMO.

#### 2.13. Defect control

Where the CAMO has subcontracted the day-to-day control of technical log deferred defects, this should be specified in the contract and should be adequately described in the appropriate procedures. The operator's MEL/CDL provides the basis for establishing which defects may be deferred and the associated limits. The procedures should also define the responsibilities and actions to be taken for defects such as AOG situations, repetitive defects, and damage beyond the type certificate holder's limits.

For all other defects identified during maintenance, the information should be brought to the attention of the CAMO which, depending upon the procedural authority granted by the competent authority, may determine that some defects can be deferred. Therefore, adequate liaison between the CAMO, its subcontracted organisation and contracted maintenance organisation should be ensured.

The subcontracted organisation should make a positive assessment of potential deferred defects and consider the potential hazards arising from the cumulative effect of any combination of defects. The subcontracted organisations should liaise with the CAMO to get its agreement following this assessment.

Deferment of MEL/CDL allowable defects can be accomplished by a contracted maintenance organisation in compliance with the relevant technical log procedures, subject to the acceptance by the aircraft commander.

#### 2.14. Mandatory occurrence reporting

All incidents and occurrences that meet the reporting criteria defined in <a href="Part-M">Part-M</a> and <a href="Part-145">Part-145</a> should be reported as required by the respective requirements. The CAMO should ensure that adequate liaison exists with the subcontracted organisation and the maintenance organisation.

### 2.15. Continuing airworthiness records

They may be maintained and kept by the subcontracted organisation on behalf of the CAMO, which remains the owner of these documents. However, the CAMO should be provided with the current status of AD compliance and life-limited parts and time-controlled components in accordance with the agreed procedures. The CAMO should also be granted unrestricted and timely access to the original records as and when needed. Online access to the appropriate information systems is acceptable.

The record-keeping requirements of <u>Part-M</u> should be met. Access to the records by duly authorised members of the competent authority should be granted upon request.

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#### 2.16. Maintenance check flight (MCF) procedures

MCFs are performed under the control of the operator in coordination with the CAMO. MCF requirements from the subcontracted organisation or contracted maintenance organisation should be agreed by the operator/CAMO.

- 2.17. Communication between the CAMO and the subcontracted organisation
  - 2.17.1. In order to fulfil its airworthiness responsibility, the CAMO needs to receive all the relevant reports and relevant maintenance data. The contract should specify what information should be provided and when.
  - 2.17.2. Meetings provide one important cornerstone whereby the CAMO can fulfil part of its responsibility for ensuring the airworthiness of the operated aircraft. They should be used to establish good communication between the CAMO, the subcontracted organisation and the contracted maintenance organisation. The terms of the contract should include, whenever appropriate, the provision for a certain number of meetings to be held between the involved parties. Details of the types of liaison meetings and associated terms of reference of each meeting should be documented. The meetings may include but are not limited to all or a combination of:
    - (a) Contract review

Before the contract is enforced, it is very important that the technical personnel of both parties, that are involved in the fulfilment of the contract, meet in order to be sure that every point leads to a common understanding of the duties of both parties.

(b) Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed are commonly agreed.

(c) Technical meeting

Scheduled meetings should be organised in order to review on a regular basis and agree on actions on technical matters such as ADs, SBs, future modifications, major defects found during shop visit, reliability, etc.

(d) Quality meeting

Quality meetings should be organised in order to examine matters raised by the CAMO's quality surveillance and the competent authority's monitoring activity and to agree on necessary corrective actions.

(e) Reliability meeting

When a reliability programme exists, the contract should specify the involvement of the CAMO and of the subcontracted organisation in that programme, including their participation in reliability meetings. Provision to enable competent authority participation in the periodical reliability meetings should also be made.



# Appendix III to GM1 M.B.303(b) — KEY RISK ELEMENTS

ED Decision 2020/002/R

	Title	Description			
A. AIR	A. AIRCRAFT CONFIGURATION				
A.1	Type design and changes to type design	The type design is the part of the approved configuration of a product, as laid down in the TCDS, common to all products of that type. With the exception of changes contained in the certification specifications referred to in Part 21 point 21A.90B or 21A.431B of the Annex (Part 21) any changes to type design shall be approved and, for those embodied, shall be recorded with the reference to the approval.			
A.2	Airworthiness limitations	An airworthiness limitation is a boundary beyond which an aircraft or a component thereof must not be operated, unless the instruction(s) associated to this airworthiness limitation is (are) complied with.			
A.3	Airworthiness Directives	An Airworthiness Directive means a document issued or adopted by the Agency, which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised.  (Part 21A.3B)			
B. AIR	CRAFT OPERATION				
B.1	Aircraft documents	Aircraft certificates and documents necessary for operations.			
B.2	Flight Manual	A manual, associated with the certificate of airworthiness, containing limitations within which operation of the aircraft is to be considered airworthy and, instructions and information necessary to the flight crew members for the safe operation of the aircraft.			
B.3	Mass & balance	Mass and balance data is required to make sure the aircraft is capable of operating within the approved envelope.			
B.4	Markings & placards	Markings and placards are defined in the individual aircraft type design. Some information may also be found in the Type Certificate Data Sheet, the Supplemental Type Certificates, the Flight Manual, the Aircraft Maintenance Manual, the Illustrated Parts Catalogue, etc.			
B.5	Operational requirements	Items required to be installed to perform a specific type of operation.			
B.6	Defect management	Defect management requires a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is captured. This system should be properly documented.  It may include, amongst others, the Minimum Equipment List system, the Configuration Deviation List system and deferred defects management.			

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C. AIRO	C. AIRCRAFT MAINTENANCE			
C.1	Aircraft Maintenance Programme	A document which describes or incorporates by reference the specific scheduled maintenance tasks and their frequency of completion, the associated maintenance procedures and related standard maintenance practices necessary for the safe operation of those aircraft to which it applies.		
C.2	Component control	The component control should consider a twofold objective for components maintenance:  — maintenance for which compliance is mandatory;  — maintenance for which compliance is recommended.		
C.3	Repairs	All repairs and unrepaired damage/degradations need to comply with the instructions of the appropriate maintenance manual (e.g. the SRM, the AMM, the CMM). With the exception of repairs contained in the certification specifications referred to in Part 21 point 21A.90B or 21A.431B of the Annex (Part 21), all repairs not defined in the appropriate maintenance manual need to be appropriately approved and recorded with the reference to the approval.  This includes any damage or repairs to the aircraft/engine(s)/propeller(s), and their components.		
C.4	Records	Continuing Airworthiness records are defined in M.A.305 and M.A.306 and related AMC.		

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A.1 Type design and changes to type design	The type design is the part of the approved configuration of a product, as laid down in the TCDS, common to all products of that type. With the exception of changes contained in the certification specifications referred to in Part 21 point 21A.90B or 21A.431B of the Annex (Part 21) any changes to type design shall be approved and, for those embodied, shall be recorded with the reference to the approval.
Supporting information	Typical inspection items
<ol> <li>the drawings and specifications, and a listing of those drawings and specifications, necessary to define the configuration and the design features of the product (i.e. the aircraft, its components, etc.) shown to comply with the applicable type-certification basis and environmental protection requirements;</li> <li>information on materials and processes and on methods of manufacture and assembly of the product necessary to ensure the conformity of the product;</li> <li>an approved Airworthiness Limitation Section (ALS) of the Instructions for Continued Airworthiness (ICA); and</li> <li>any other data necessary to allow by comparison the determination of the airworthiness, the characteristics of noise, fuel venting, and exhaust emissions (where applicable) of later products of the same type.</li> <li>The individual aircraft design is made of the type design supplemented with changes to the type design (e.g. modifications) embodied on the considered aircraft.</li> <li>Depending on the product State of Design, Bilateral Agreements and/or Agency decisions on acceptance of certification findings exist and should be taken into account.</li> </ol>	<ol> <li>Use the current type certificate data sheets (airframe, engine, propeller as applicable) and check that the aircraft conforms to its type design (correct engine installed, seat configuration, etc.).</li> <li>Check that changes have been approved properly (approved data is used, and a direct relation to the approved data).</li> <li>Check for unintentional deviations from the approved type design, sometimes referred to as concessions, divergences, or non-conformances, Technical Adaptations, Technical Variations, etc.</li> <li>Check cabin configuration (LOPA).</li> <li>Check for embodiment of STC's, and, if any Airworthiness Limitations Section (ALS)/ FM/MEL/WBM and revisions are needed, they have been approved and complied with.         <ol> <li>Aircraft S/N applicable</li> <li>Applicable engines</li> <li>Applicable APU</li> <li>Max. certified weights</li> <li>Seating configuration</li> <li>Exits</li> </ol> </li> <li>Check that the individual aircraft design/configuration is properly established and used as a reference.</li> </ol>
	<ul><li>21.A.31</li><li>21.A.41</li></ul>
	- 21.A.61
	– 21.A.90A
	- 21.A.90B
	- <u>M.A.304</u>
	– <u>M.A.305</u>

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- <u>M.A.401</u>

A.2 Airworthiness limitations	An airworthiness limitation is a boundary beyond which an aircraft or a component thereof must not be operated, unless the instruction(s) associated with this airworthiness limitation is complied with.
Supporting information  Airworthiness limitations are exclusively associated with instructions whose compliance is mandatory as part of the type design. They apply to some scheduled or unscheduled instructions that have been developed to prevent and/or to detect the most severe failure.  They mainly apply to maintenance (mandatory modification, replacement, inspections, checks, etc., but can also apply to instructions to control critical design configurations (for example	<ol> <li>Check that the Aircraft Maintenance Programme (AMP) reflects airworthiness limitations and associated instructions (standard or alternative) issued by the relevant design approval holders and is approved by the competent authority, if applicable.</li> <li>Check that the aircraft and the components thereof comply with the approved AMP.</li> <li>Check the current status of life-limited parts. The current status of life-limited parts is to be maintained throughout the operating life of the part.</li> <li>Typical Airworthiness Limitation items:</li> </ol>
Critical Design Configuration Control Limitations (CDCCL) for the fuel tank safety).	<ul> <li>Safe Life ALI (SL ALI)/Life-limited parts,</li> <li>Damage Tolerant ALI (DT ALI)/Structure, including ageing aircraft structure,</li> <li>Certification Maintenance Requirements (CMR),</li> <li>Ageing Systems Maintenance (ASM), including Airworthiness Limitations for Electrical Wiring Interconnection System (EWIS),</li> <li>Fuel Tank Ignition Prevention (FTIP)/Flammability Reduction Means (FRM),</li> <li>CDCCL, check wiring if any maintenance carried out in same area - wiring separation,</li> <li>Ageing fleet inspections mandated through ALS or AD are included in the AMP.</li> </ul>
Reference documents: EASA	<ul> <li>21.A.31</li> <li>21.A.61</li> <li>CS 22.1529</li> <li>CS 23.1529, Appendix G, para. G25.4</li> <li>CS 25.1529, Appendix H, para. H25.4</li> <li>CS 27.1529, Appendix A, para. A27.4</li> <li>CS 29.1529, Appendix A, para. A29.4</li> <li>CS 31HB.82</li> <li>CS-APU 30</li> <li>CS-E 25</li> <li>CS-P 40</li> </ul>

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M.A.302



**Reference documents: EASA** 

	— —	M.A.305 M.A.710(a)(7)
A.3	Airworthiness Directives	An Airworthiness Directive means a document issued or adopted by the Agency, which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised (Part 21A.3B).
Support	ting information	Typical inspection items
Any Airworthiness Directive issued by a State of Design for an aircraft imported from a third country, or for an engine, propeller, part or appliance imported from a third country and installed on an aircraft registered in a Member State, shall apply unless the Agency has issued a different Decision before the date of entry into force of that airworthiness directive.		<ol> <li>Check if all ADs applicable to the airframe, engine(s), propeller(s) and equipment have been incorporated in the AD-status, including their revisions.</li> <li>Check records for correct AD applicability (including ADs incorrectly listed as non-applicable).</li> </ol>

21.A.3B 21.B.60 21.B.326 21.B.327 M.A.303

M.A.305(d) & (h) M.A.401(a) & (b) M.A.501(b) M.A.503(a) M.A.504(a)2

M.A.504 & AMC M.A.504(c) § 1 (f)

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-	M.A.613 & AMC M.A.613(a) § 2.4.3, 2.5.2, 2.6.1(h) & 2.8(b)
_	M.A.708(b)8
_	M.A.709(a)
_	M.A.710(a)5
_	M.A.801 & AMC M.A.801(h)

B.1 Aircraft documents	Aircraft certificates and documents necessary for operations.
Supporting information	Typical inspection items
The aircraft certificates and documents necessary for operations may include, but are not necessarily limited to:	1. Check that all certificates and documents pertinent to the aircraft and necessary for operations (or copies, as appropriate) are on board.
<ul> <li>Certificate of Registration;</li> </ul>	2. Check C of A modification/Aircraft identification.
<ul><li>Certificate of Airworthiness;</li><li>Noise certificate;</li></ul>	3. Check that noise certificate corresponds to aircraft configuration.
<ul> <li>Aircraft certificate of release to service;</li> </ul>	4. Check Permit to fly and Flight Condition when necessary.
<ul> <li>Technical log book, if required;</li> <li>Airworthiness Review Certificate;</li> <li>Etc.</li> </ul>	5. Check that there is an appropriate aircraft certificate of release to service.
Reference documents: EASA	<ul> <li>Part-21 Subpart H</li> <li>21.A.175</li> <li>21.A.182</li> <li>Part-21 Subpart I</li> <li>Part-21 Subpart P</li> <li>Part-21 Subpart Q</li> <li>21.A.801</li> <li>M.A.201(a)(3)</li> <li>M.A.801</li> </ul>

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B.2 Flight Manual	A manual, associated with the certificate of airworthiness, containing operational limitations, instructions and information necessary for the flight crew members for the safe operation of the aircraft.
Supporting information	Typical inspection items
The Flight Manual needs to reflect the current status/configuration of the aircraft. When it does not, it may provide flight crew members with wrong information.  This may lead to errors and/or to override limitations that could contribute to severe failure.	<ol> <li>Check the conformity of the Flight Manual (FM), latest issue, with aircraft configuration, including modification status, (AD, SB, STC etc.).</li> <li>Check:         <ul> <li>the FM approval, revision control, Supplement to FM;</li> <li>the impact of modification status on noise and weight &amp; balance;</li> <li>additional required manuals (QRH/FCOM/OM-B etc.);</li> <li>FM limitations.</li> </ul> </li> </ol>
Reference documents: EASA	<ul> <li>21.A.174(b)2(iii), (b)3(ii)</li> <li>21.A.204(b)1(ii), (b)2(i)</li> <li>M.A.305, AMC M.A.305(d)</li> <li>M.A.710(a)2</li> <li>M.A.710(c)2</li> <li>AMC M.A.710(a)1</li> <li>AMC M.A.901(d) and (g)</li> <li>M.A.902(b)3</li> <li>AMC M.A.904(a)(2) points 2(c) and 2(k)</li> <li>AMC M.A.904(b) point (c)</li> </ul>

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B.3	Mass & balance	Mass and balance data is required to make sure the aircraft is capable of operating within the approved envelope.
Supporting inf	ormation	Typical inspection items
the aircraft. When it does not, the aircraft might be operated outside the certified operating envelope.		<ol> <li>Check that mass and balance report is valid, considering current configuration.</li> <li>Make sure that modifications and repairs are taken into account in the report.</li> <li>Check that equipment status is recorded on the mass and balance report.</li> <li>Compare current mass and balance report with previous report for consistency.</li> </ol>
Reference doc	uments: EASA	<ul> <li>M.A.305(d)5</li> <li>M.A.708(b)(10)</li> <li>M.A.710(a)(9), AMC M.A.710(a)1</li> <li>Part-CAT: CAT.POL.MAB.100 and related AMCs/GM</li> <li>Part-NCC: NCC.POL.105 and related AMC/GM</li> <li>Part-SPO: SPO.POL.105 and related AMC/GM</li> </ul>

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B.4 Markings & placards	Markings and placards are defined in the individual aircraft type design. Some information may also be found in the TCDS, the Supplemental Type Certificates (STC), the FM, the AMM, the IPC, etc.
Supporting information  Markings and placards on instruments, equipment, controls, etc. shall include such limitations or information as necessary for the direct attention of the crew during flight.  Markings and placards or instructions shall be provided to give any information that is essential to the ground handling in order to preclude the possibility of mistakes in ground servicing (e.g. towing, refuelling) that could pass unnoticed and that could jeopardise the safety of the aircraft in subsequent flights.  Markings and placards or instructions shall be provided to give any information essential in the prevention of passenger injuries.  National registration markings must be installed. They include registration, possible flag, fireproof registration plate.  Product data plates must be installed.  When markings and placards are missing, or unreadable, or not properly installed, mistakes or aircraft damages may occur and could subsequently contribute to a severe failure.	Typical inspection items  Check that the required markings and placards are installed on the aircraft, especially the emergency exit markings instructions and passenger information signs and placards.  Check that all installed placards are readable.  Check the Flight Manual versus the instruments.  Check registration usually).  Check registration markings, including State of Registry fireproof nameplate.  Check product data plates.  Examples of markings & placards:  a door means of opening,  a each compartment's weight/load limitation/placards stating limitation on contents,  a passenger information signs, including no smoking signs,  a emergency exit marking,  pressurised cabin warning,  a calibration placards,  cockpit placards and instrument markings,  cockpit placards and instrument markings,  a cockses to the fuel tanks with flammability reduction means (CDCCL),  fuelling markings (fuel vent, fuel dip stick markings),  EWIS identification,  towing limit markings,  break-in markings,
Reference documents: EASA	<ul> <li>inflate tyres with nitrogen,</li> <li>RVSM + static markings.</li> <li>21.A.175</li> <li>21.A.715</li> <li>21.A.801</li> <li>21.A.803</li> <li>21.A.804</li> </ul>

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	_	21.A.805
	_	21.A.807
	_	relevant CS for the aircraft type being inspected
	_	<u>M.A.501</u>
	_	M.A.710(c)
	_	AMC M.A.504(e)
	_	AMC M.A.603(c)
	_	AMC M.A.904(a)(2) points 2(f) & 2(k)
-		

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B.5 Operational requirements	Requirements for the type of operation are complied with (e.g. equipment, documents, approvals).
Supporting information	Typical inspection items
This includes all equipment required by the applicable operational code including national requirements.  In case of malfunction, it can create a hazardous situation. Especially emergency equipment needs attention during this inspection.	2. Check for the presence and serviceability of equipment required by operational
Reference documents: EASA	<ul> <li>M.A.201(a)(2)</li> <li>Part-21 Subpart I</li> <li>Part-CAT, Part-NCC, Part-NCO, Part-SPO Subpart D 'Instruments, Data and Equipment'.</li> </ul>

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B.6 Defect management	Defect management requires a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is captured. This system should be properly documented. It includes, amongst others, the MEL system, the CDL system and deferred defects management.
Supporting information	Typical inspection items
This KRE addresses the effectiveness of defect management, it should also consider defects found during the physical inspection.	<ol> <li>Check that the deferred defects have been identified, recorded, and rectified/deferred in accordance with approved procedures and within approved time limits.</li> <li>Check that operations outside published approved data have only been performed under a Permit to Fly or under flexibility provisions (Article 71 of Regulation (EU) 2008/1139). Sample on:         <ol> <li>TLB and hold item list,</li> <li>maintenance task cards,</li> <li>engine shop report,</li> <li>(major) component shop report,</li> <li>maintenance/repair/modification working party files after embodiment of modifications or repairs,</li> <li>occurrence reporting data,</li> <li>communications between the user of maintenance data and the maintenance data author in case of inaccurate, incomplete, ambiguous procedures and</li> </ol> </li> </ol>
	practices.
	3. Check that the consequences of the deferral have been managed with Operation/Crew.
	4. Check that defects are being deferred in accordance with approved data (current revision of the MEL, CDL, aircraft maintenance programme).
	5. Compare physical location of parts/serial numbers with recorded locations to identify undocumented parts swaps for troubleshooting.
Reference documents: EASA /EU	- M.A.301(b) - AMC M.A.301(b) - M.A.403 - AMC M.A.710(a) - 145.A.60 - AMC 20-8

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Regulation (EU) No 376/2014

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C.1

Aircraft Maintenance Programme

A document which describes the specific scheduled maintenance tasks and their frequency of completion, related standard maintenance practices and the associated procedures necessary for the safe operation of those aircraft to which it applies.

### **Supporting information**

The Aircraft Maintenance Programme (AMP) is intended to include scheduled maintenance tasks, the associated procedures and standard maintenance practises. It also includes the reliability programme, when required.

Tasks included in the maintenance programme can originate from:

- tasks for which compliance is mandatory: instructions specified in repetitive Airworthiness Directives (AD), or in the Airworthiness Limitations Section (ALS), which may include Certification Maintenance Requirements (CMRs). The ALS is included in the Instructions for Continuing Airworthiness (ICA) of a design approval holder;
- tasks for which compliance is recommended: additional instructions specified in the Maintenance Review Board Report (MRBR), the Maintenance Planning Document (MPD), Service Bulletins (SB), or any other non-mandatory continuing airworthiness information issued by the design approval holder;
- additional or alternative instructions proposed by the owner or the continuing airworthiness management organisation once approved in accordance with point M.A.302(e);

The AMP shall contain details, including frequency, of all maintenance to be carried out, including any specific tasks linked to the type and the specificity of operations.

### **Typical inspection items**

## **Review of AMP contents:**

- Check that the AMP properly reflects mandatory continuing airworthiness instructions (ALIs, CMRs (the latest source documents' revision. Sample check that tasks are implemented within approved compliance times and that no tasks have been omitted.
- 2. Check how recommended scheduled maintenance tasks (such as TBO intervals, recommended through Service Bulletins, Service Letters, etc., the latest source documents' revision) are considered when updating the AMP.
- 3. Check that the AMP properly reflects the maintenance tasks specified in repetitive ADs.
- 4. Check that the AMP properly reflects additional instructions for continuing airworthiness resulting from specific installed equipment or modifications embodied.
- 5. Check that the AMP properly reflects additional instructions for continuing airworthiness resulting from repairs embodied.
- 6. If applicable, check that the AMP properly reflects additional maintenance tasks required by specific approvals (e.g. RVSM, ETOPS, MNPS, B-RNAV).
- 7. Check for any additional scheduled maintenance measures required due to the use of the aircraft and the operational environment.
- 8. If applicable, check for proper identification of pilot-owner maintenance tasks and identification of the pilot-owner(s) or the alternative procedure described in <a href="MAC.803"><u>AMC.803</u></a> point 3.
- 9. Check approval status of additional or alternative instructions (M.A.302(e)).
- 10. Check if a reliability programme is present and active when required.
- 11. Check if the AMP is approved by the competent authority directly, or by the CAMO via indirect approval procedure, or if it is a self-declared maintenance programme.

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	Review of aircraft compliance with an AMP:		
	12. Check if the AMP used is valid for the aircraft, and is reviewed annually.		
	13.	Check if tasks are performed within the value(s) quoted in AMP and the source documents	
	14.	Sample check that no task has been omitted without justifications accepted by the Competent Authority (at the time of decision).	
	15.	Check the reporting of performed scheduled maintenance into the records system.	
	16.	Analyse the effectiveness of the AMP and reliability by reviewing the unscheduled tasks.	
Reference documents: EASA	- - -	M.A.302 and its AMC. M.A.708(b)(1), (b)(2) and (b)(4) M.A.803 and its AMC	

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	<b>EASA</b>
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Component control

The component control should consider a twofold objective for components maintenance:

- maintenance for which compliance is mandatory.
  - maintenance for which compliance is recommended.

## **Supporting information**

Depending on each maintenance task, accomplishment is scheduled or 1. unscheduled. Refer to KRE C.1 'Aircraft Maintenance Programme'.

Components with a mandatory life limitation must be permanently 2. removed from service when, or before, their operating limitation is exceeded. The life limitation is controlled at the component level (in opposition to aircraft level).

Components which are 'time-controlled components' include the 3. following:

- components for which removal and restoration are scheduled, regardless of their level of failure resistance. Reference is made to hard time components: They are subject to periodic maintenance dealing with a deterioration that is assumed to be predictable (the overall reliability invariably decreases with age): Failure is less likely to occur before restoration is necessary;
- components for which failure resistance can reduce and drop below a defined level: Inspections are scheduled to detect potential failures. Reference is made to 'On-condition' components: They are called such because components, which are inspected, are left in service (no further maintenance action taken) on the condition that they continue to meet specified performance standards.

#### Notes:

Restoration tasks for hard time components are not the same as 'On-condition' tasks, since they do not monitor gradual deterioration, but are primarily done to ensure the item may continue to remain in service until the next planned restoration.

## Typical inspection items

- Check that the mandatory maintenance tasks are identified as such and managed separately from recommendations.
- Sample check installed components (PN and SN) against aircraft records:
  - Correct Part Number and Serial Number installed.
  - Correct authorised release document available.
- Check the current status of time-controlled components, with due consideration to deferred items. They must identify:
  - The affected components (Part Number and Serial Number).
  - For components subject to a repetitive task: the task description and reference, the applicable threshold/interval, the last accomplishment data (date, the component's total accumulated life in Hours, Cycles, Landings, Calendar time, as necessary) and the next planned accomplishment data.
  - For components subject to an unscheduled task: the task description and reference, the accomplishment data (date, the component's total accumulated life in Hours, Cycles, Landings, Calendar time, as necessary). Pay attention to ETOPS and CDCCL components.
- Check current status of life-limited parts. This status can be requested upon each transfer throughout the operating life of the part:
  - The life limitation, the component's total accumulated life, and the life remaining before the component's life limitation is reached (indicating Hours, Cycles, Landings, Calendar time, as necessary).
  - If relevant for the determination of the remaining life, a full installation history indicating the number of hours, cycles or calendar time relevant to each installation on these different types of aircraft/engine.

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2. Components subject to 'condition-monitoring' are permitted to remain in service without preventive maintenance until functional failure occurs. Reference is made to 'fly-to-failure'. Such components are subject to unscheduled tasks.		Check if the aircraft maintenance programme and reliability programme results impact the component control.  Check that life-limited and time controlled components are correctly marked during a physical survey.	
Reference documents: EASA		21.A.805 M.A.302 M.A.501 M.A.503 M.A.710	

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C.3 Repairs	All repairs and unrepaired damage/degradations need to comply with the instructions of the appropriate maintenance manual (e.g. the SRM, the AMM, the CMM). With the exception of repairs contained in the certification specifications referred to in Part 21 point 21A.90B or 21A.431B of the Annex (Part 21), all repairs not defined in the appropriate maintenance manual need to be appropriately approved and recorded with the reference to the approval. This includes any damage or repairs to the aircraft/engine(s)/propeller(s), and their components.
Supporting information	Typical inspection items
The data substantiating repairs should include, but is not limited to, the damage assessment, the rationale for the classification of the repair, the evidence the repair has been designed in accordance with approved data, i.e. by reference to the appropriate manual, procedure or to a Part 21 repair design approval, the drawings/material and accomplishment instructions, as well as the maintenance and operational instructions.  'Repair status' means a list of:  the repairs embodied since the original delivery of (and still existent upon) the aircraft/engine/propeller/component; and  the un-repaired damage/degradations.  It also includes, either directly or by reference to supporting documentation (i.e. repair files), the substantiating data supporting compliance with the applicable airworthiness requirements.	<ol> <li>Sample repair files (at least one file for each type of repaired items) to check that repaired and unrepaired damage/deterioration have been assessed against the latest published approved repair data.</li> <li>Check that repair instructions detailed in the repair file comply with published approved repair data.</li> <li>Check that major repairs resulting in new or amended airworthiness limitations and associated mandatory instructions (including ageing aircraft programme) have been included in the aircraft maintenance programme.</li> </ol>
The repair status should identify the repair file reference, the repair classification, the repaired item (i.e. aircraft/engine/propeller/component, and a precise location if necessary), and the date and total life in FH/FC accumulated by the item at the time of repair or finding of the un-repaired damage/degradations. Cross-reference to the aircraft maintenance programme should also be included, as necessary. Depending on the product State of Design, Bilateral Agreements and/or Agency Decisions on acceptance of certification findings exist and should be taken into account for the determination of acceptable data for repairs.	6. Compare the repair status and the physical status of the repaired aircraft/engine(s)/propeller(s), and their repaired components (physical survey) in order to confirm the accuracy of the repair status. Sample embodied repairs to check their conformity against the repair files (physical survey).
Reference documents: EASA	<ul><li>21.A.431A</li><li>21.A.431B</li></ul>

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M.A.304
 AMC M.A.304
 M.A.305
 AMC M.A.305

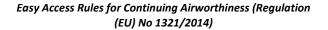
M.A.401AMC M.A.401

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C.4 Records	Continuing Airworthiness records are defined in M.A.305 and M.A.306 and related AMC.
Supporting information	Typical inspection items
Retention/Transfer of the records is required so that the status of the aircraft and its components can be readily established at any time.	1. Check the aircraft continuing airworthiness record system: M.A.305 and M.A.306, as applicable, require that certain records are kept for defined periods.
Task accomplishment is scheduled (one time or periodically), or unscheduled (e.g. following an event). Aircraft continuing airworthiness records (refer to logbooks, technical logbooks, component log cards or task cards) shall provide the status with regard to:  - scheduled tasks:  - one-time: life-limited parts status, modification status, repair status.  - repetitive: maintenance programme status.  - unscheduled tasks.	<ul> <li>Pay attention to the continuity, integrity and traceability of records:</li> <li>a. integrity: Check the data recorded is legible,</li> <li>b. continuity: Check that records are available for the applicable retention period,</li> <li>c. traceability: Check the link between operator/CAMO and maintenance documentation, traceability to approved data, traceability to appropriate</li> </ul>
	release documents, etc.  2. If applicable, make sure that the tech log system is used correctly, including:  a. current aircraft release to service (including the maintenance statement) issued
	<ul> <li>b. pre-flight inspections signed-off by authorised persons;</li> <li>3. Check that any maintenance required following abnormal operation/event (such as overspeed, overweight operation, hard landing, excessive turbulence, and operation outside of Flight Manual limitations) has been performed, as applicable.</li> </ul>
Reference documents: EASA	- M.A.305 - M.A.306 - M.A.307 - M.A.801 - AMC M.A.305 - AMC M.A.306 - AMC M.A.307

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## Abbreviations used:

A/C Aircraft

ACAM Aircraft Continuous Airworthiness Monitoring

AD Airworthiness Directive

ALI Airworthiness Limitation Items

ALS Airworthiness Limitations Section

AMM Aircraft Maintenance Manual

AMP Aircraft Maintenance Programme

APU Auxiliary Power Unit

ASM Ageing Systems Maintenance

B-RNAV Basic Area Navigation

CAMO Continuing Airworthiness Management Organisation

CDL Configuration Deviation List

CDCCL Critical Design Configuration Control Limitations

CMM Component Maintenance Manual

CMR Certification Maintenance Requirement

DT Damage Tolerant

ED Executive Director of EASA

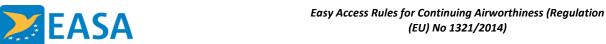
ETOPS Extended Range Operations with Two-engined aeroplanes

ETSO European Technical Standard Order

EWIS Electrical Wiring Interconnection System

EZAP Enhanced Zonal Analysis Procedure

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Annex I (Part-M)

APPENDICES TO AMC AND GM TO ANNEX I (Part-M)

FCOM Flight Crew Operations Manual

FDR Flight Data Recorder

FM Flight Manual

FRM Flammability Reduction Means

FTIP Fuel Tank Ignition Prevention

GA General Aviation

ICA Instructions for Continuing Airworthiness

IPCI Illustrated Parts Catalogue

KRE Key Risk Element

LHIRF Lightning High Intensity Radiated Field

LOPA Layout of Passenger Accommodation

MCAI Mandatory Continuing Airworthiness Information

MEL Minimum Equipment List

MNPS Minimum Navigation Performance Specification

MRB Maintenance Review Board

MRBR Maintenance Review Board Report

MPD Maintenance Planning Document

NAA National Aviation Authority

OEM Original Equipment Manufacturer

OM Operations Manual

OM-B Operations Manual Part-B

PN Part Number

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# Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

Annex I (Part-M)

APPENDICES TO AMC AND GM TO ANNEX I (Part-M)

QRH Quick Reference Handbook

PWR Power

RVSM Reduced Vertical Separation Minima

SN Serial Number

SB Service Bulletin

SM Service Manual

SRM Structural Repair Manual

STC Supplemental Type Certificate

TBO Time Between Overhauls

TC Type Certificate

TCDS Type Certificate Data Sheet

TLB Technical Logbook

TSO Technical Standard Order

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# Appendix IV to AMC M.A.604 — Maintenance organisation manual

ED Decision 2020/002/R

## 1. Purpose

The maintenance organisation manual is the reference for all the work carried out by the approved maintenance organisation. It should contain all the means established by the organisation to ensure compliance with <a href="Part-M">Part-M</a> or Part-ML according to the extent of approval and the privileges granted to the organisation.

The maintenance organisation manual should define precisely the work that the approved maintenance organisation is authorised to carry out and the subcontracted work. It should detail the resources used by the organisation, its structure and its procedures.

## 2. Content

A typical Maintenance Organisation Manual for a small organisation (less than 10 maintenance staff) should be designed to be used directly on a day to day basis. The working documents and lists should be directly included into the manual. It should contain the following:

## Part A — General

- Table of contents
- List of effective pages
- Record of amendments
- Amendment procedure
  - Drafting
  - Amendments requiring direct approval by the competent authority
  - Approval

## Distribution

Name or title of each person holding a copy of the manual

## Accountable manager statement

- Approval of the manual
- Statement that the maintenance organisation manual and any incorporated document identified therein reflect the organisation's means of compliance with Part-M and Part-ML
- Commitment to work according to the manual
- Commitment to amend the manual when necessary

## Part B — Description

## Organisation's scope of work

- Description of the work carried out by the organisation (type of product, type of work) and subcontracted work
- Identification of the level of work which can be performed at each facility.



## General presentation of the organisation

Legal name and social status

## Name and title of management personnel

- Accountable manager
- Senior managers
- Duties and responsibilities

## Organisation chart

## Certifying staff and airworthiness review staff

- Minimum qualification and experience
- List of authorised certifying staff and airworthiness review staff, their scope of qualification and the personal authorisation reference

## Personnel

- Technical personnel (number, qualifications and experience)
- Administrative personnel (number)

## General description of the facility

- Geographical location (map)
- Plan of hangars
- Specialised workshops
- Office accommodation
- Stores
- Availability of all leased facilities.

## Tools, equipment and material

- List of tools, equipment and material used (including access to tools used on occasional basis)
- Test apparatus
- Calibration frequencies

# Maintenance data

 List of maintenance data used in accordance with <u>M.A.402</u> or <u>ML.A.402</u>, and appropriate amendment subscription information (including access to data used on occasional basis).

## Part C — General Procedures

# Organisational review

- Purpose (to insure that the approved maintenance organisation continues to meet the requirements of <u>Part-M</u> and Part-ML)
- Responsibility

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- Organisation, frequency, scope and content (including processing of authority's findings)
- Planning and performance of the review
- Organisational review checklist and forms
- Processing and correction of review findings
- Reporting
- Review of subcontracted work

## Training

- Description of the methods used to ensure compliance with the personnel qualification and training requirements (certifying staff training, specialised training)
- Description of the personnel records to be retained

## Subcontracting of specialised services

- Selection criteria and control
- Nature of subcontracted work
- List of subcontractors
- Nature of arrangements
- Assignment of responsibilities for the certification of the work performed

## One time authorisations

- Maintenance checks
- Certifying staff

# Part D — Working Procedures

## Work order acceptance

# Preparation and issue of the work package

- Control of the work order
- Preparation of the planned work
- Work package content (copy of forms, work cards, procedure for their use, distribution)
- Responsibilities and signatures needed for the authorisation of the work

## Logistics

- Persons/functions involved
- Criteria for choosing suppliers
- Procedures used for incoming inspection and storage of parts, tools and materials
- Copy of forms and procedure for their use and distribution

## Execution

- Persons/functions involved and respective role
- Documentation (work package and work cards)
- Copy of forms and procedure for their use and distribution
- Use of work cards or manufacturer's documentation
- Procedures for accepting components from stores including eligibility check
- Procedures for returning unserviceable components to stores

# Release to Service – Certifying staff

Authorised certifying staff functions and responsibilities

## Release to Service – Supervision

Detailed description of the system used to ensure that all maintenance tasks, applicable to the work requested of the approved maintenance organisation, have been completed as required.

- Supervision content
- Copy of forms and procedure for their use and distribution
- Control of the work package

## Release to Service – Certificate of release to service

- Procedure for signing the CRS (including preliminary actions)
- Certificate of release to service wording and standardised form
- Completion of the aircraft continuing airworthiness record system
- Completion of EASA Form 1
- Incomplete maintenance
- Maintenance check flight authorisation
- Copy of CRS and EASA Form 1

## Records

 Airworthiness review procedures and records for ELA1 aircraft not involved in commercial operations

## Special procedures

Such as specialised tasks, disposal of unsalvageable components, re-certification of parts not having an EASA Form 1, etc.

## Occurrence reporting

- Occurrences to be reported
- Timeframe of reports
- Information to be reported
- Recipients

# Management of indirect approval of the manual

- Amendments content eligible for indirect approval
- Responsibility
- Traceability
- Information to the competent authority
- Final validation

## Part E - Appendices

- Sample of all documents used.
- List of maintenance locations.
- List of Part-145 or M.A. Subpart F organisations.
- List of subcontracted specialised services.

## 3. Approval

The competent authority should approve the manual in writing. This will normally be done by approving a list of effective pages.

Minor amendments, or amendments to a large capability list, can be approved indirectly, through a procedure approved by the member state.

## 4. Continuous compliance with Part-M and Part-ML

When a maintenance organisation manual no longer meets the requirements of this <u>Part-M</u> or Part-ML, whether through a change in Part-M or Part-ML, a change in the organisation or its activities, or through an inadequacy shown to exist by verification inspections conducted under the organisational review, or any other reason that affects the manuals conformity to requirements, the approved maintenance organisation is responsible to prepare and have approved an amendment to its manual.

## 5. Distribution

The manual describes how the organisation works therefore the manual or relevant parts thereof need to be distributed to all concerned staff in the organisation and contracted organisations.

# Appendix V to AMC1 M.A.704 — Continuing airworthiness management exposition

ED Decision 2020/002/R

The following text provides relevant information for developing a CAME for the particular case of a CAMO working on aircraft subject to Part-M and contracting maintenance to Part M Subpart F and Part 145 organisations.

# **CONTINUING AIRWORTHINESS MANAGEMENT EXPOSITION (CAME)**

## **TABLE OF CONTENT**

Part 0	General organisation
0.1	Corporate commitment by the accountable manager
0.2	General information
0.3	Management personnel
0.4	Management organisation chart
0.5	Procedure to notify the competent authority of changes to the organisation's activities/approval/location/personnel
0.6	Exposition amendment procedures
Part 1	Continuing airworthiness management procedures
1.1	Aircraft technical log utilisation and MEL application Aircraft continuing airworthiness record system utilisation
1.2	Aircraft maintenance programmes — development amendment and approval
1.3	Time and continuing airworthiness records, responsibilities, retention and access
1.4	Accomplishment and control of airworthiness directives
1.5	Analysis of the effectiveness of the maintenance programme(s)
1.6	Non-mandatory modification embodiment policy
1.7	Major repair and modification standards
1.8	Defect reports
1.9	Engineering activity
1.10	Reliability programmes
1.11	Pre-flight inspections
1.12	Aircraft weighing
1.13	Maintenance check flight procedures
Part 2	Quality system
2.1	Continuing airworthiness quality policy, plan and audit procedure
2.2	Monitoring of continuing airworthiness management activities
2.3	Monitoring of the effectiveness of the maintenance programme(s)
2.4	Monitoring that all maintenance is carried out by an appropriate maintenance organisation
2.5	Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor
2.6	Quality audit personnel
Part 3	Contracted maintenance
3.1	Maintenance contractor selection procedure
3.2	Quality audit of aircraft

Part 4	Airworthiness review procedures
4.1	Airworthiness review staff
4.2	Review of aircraft records
4.3	Physical survey
4.4	Additional procedures for recommendations to competent authorities for the import of aircraft
4.5	Recommendations to competent authorities for the issue of ARC
4.6	Issue of ARC
4.7	Airworthiness review records, responsibilities, retention and access
Part 4B	Permit to fly procedures
4B.1	Conformity with approved flight conditions
4B.2	Issue of the permit to fly under the CAMO privilege
4B.3	Permit to fly authorised signatories
4B.4	Interface with the local authority for the flight
4B.5	Permit to fly records, responsibilities, retention and access
Part 5	Appendices
5.1	Sample documents
5.2	List of airworthiness review staff
5.3	List of subcontractors as per M.A.711(a)(3)
5.4	List of contracted approved maintenance organisations
5.5	Copy of contracts for subcontracted work (Appendix II to AMC M.A.711(a)(3))

## LIST OF EFFECTIVE PAGES

Page	Revision	Page	Revision	Page	Revision
1	Original	3	Original	5	Original
2	Original	4	Original		

## **DISTRIBUTION LIST**

(The document should include a distribution list to ensure proper distribution of the manual and to demonstrate to the competent authority that all personnel involved in continuing airworthiness activities have access to the relevant information. This does not mean that all personnel have to receive a manual, but that a reasonable amount of manuals is distributed within the organisation(s) so that personnel concerned have quick and easy access to the manual.

Accordingly, the continuing airworthiness management exposition should be distributed to:

- the operator's or the organisation's management personnel and to any person at a lower level as necessary; and
- the Part-145 or M.A. Subpart F contracted maintenance organisation(s); and
- the competent authority.)

## **PART 0 — GENERAL ORGANISATION**

## 0.1 Corporate commitment by the accountable manager

(The accountable manager's exposition statement should embrace the intent of the following paragraph, and in fact this statement may be used without amendment. Any amendment to the statement should not alter its intent.)

'This exposition defines the organisation and procedures upon which the M.A. Subpart G approval of Joe Bloggs under Part-M is based.

These procedures are approved by the undersigned and must be complied with, as applicable, in order to ensure that all continuing airworthiness activities, including maintenance of aircraft managed by Joe Bloggs, are carried out on time to an approved standard.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the Agency or the competent authority from time to time where these new or amended regulations are in conflict with these procedures.

The competent authority will approve this organisation whilst it is satisfied that the procedures are followed. It is understood that the competent authority reserves the right to suspend, limit or revoke the M.A. Subpart G continuing airworthiness management approval of the organisation, as applicable, if the competent authority has evidence that the procedures are not followed and the standards not upheld.

In the case of air carriers licensed in accordance with Regulation (EC) No 1008/2008, suspension or revocation of the approval of the M.A. Subpart G continuing airworthiness management organisation would invalidate the AOC.'

## 0.2 General Information

a) Brief description of the organisation

(This paragraph should describe broadly how the whole organisation (i.e. including the whole operator in the case of air carriers licensed in accordance with Regulation (EC) No 1008/2008 or the whole organisation when other approvals are held) is organised under the management of the accountable manager, and should refer to the organisation charts of paragraph 0.4.)

b) Relationship with other organisations

(This paragraph may not be applicable to every organisation.)

## (1) Subsidiaries/mother company

(For clarity purposes, where the organisation belongs to a group, this paragraph should explain the specific relationship the organisation may have with other members of that group, e.g. links between Joe Bloggs Airlines, Joe Bloggs Finance, Joe Bloggs Leasing, Joe Bloggs Maintenance, etc.)

## (2) Consortia

(Where the organisation belongs to a consortium, it should be indicated here. The other members of the consortium should be specified, as well as the scope of organisation of the consortium (e.g. operations, maintenance, design (modifications and repairs), production etc.). The reason for specifying this is that consortium maintenance may be controlled through specific contracts and through consortium's policy and/or procedures manuals that might unintentionally override the maintenance contracts. In addition, in respect of international consortia, the

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respective competent authorities should be consulted and their agreement to the arrangement should be clearly stated. This paragraph should then make reference to any consortium's continuing airworthiness related manual or procedure and to any competent authority agreement that would apply.)

## c) Scope of work — Aircraft managed

(This paragraph should specify the scope of the work for which the CAMO is approved. This paragraph may include aircraft type/series, aircraft registrations, owner/operator, contract references, etc. The following is given as an example.)

Aircraft type/ series	Date included in the scope of work	Aircraft maintenance programme or 'generic/baseline' maintenance programme	Aircraft registration(s)	Owner/ operator	CAMO contract reference

For air carriers licensed in accordance with Regulation (EC) No 1008/2008, this paragraph can make reference to the operations specifications or operations manual where the aircraft registrations are listed.

(Depending on the number of aircraft, this paragraph may be updated as follows:

- the paragraph is revised each time an aircraft is removed from or added in the list;
- 2) the paragraph is revised each time a type of aircraft or a significant number of aircraft is removed from or added to the list; in that case, the paragraph should explain where the current list of aircraft managed is available for consultation.)

## d) Type of operation

(This paragraph should give broad information on the type of operations such as: commercial air transport operations, (commercial) specialised operations, training organisation, NCC, NCO, long haul/short haul/regional, scheduled/charter, regions/countries/continents flown, etc.)

# 0.3 Management personnel

a) Accountable manager

(This paragraph should address the duties and responsibilities of the accountable manager as regards M.A. Subpart G approvals and should demonstrate that he/she has corporate authority for ensuring that all continuing airworthiness activities can be financed and carried out to the required standard.)

- b) Nominated postholder for continuing airworthiness referred to in M.A.706(d) (This paragraph should:
  - emphasise that the nominated postholder for continuing airworthiness is responsible to ensure that all maintenance is carried out on time and to an approved standard; and
  - describe the extent of his/her authority as regards his/her Part-M responsibility for continuing airworthiness.)

## c) Continuing airworthiness coordination

(This paragraph should list in sufficient detail the job functions that constitute the 'group of persons' as required by M.A.706(c) so as to show that all the continuing airworthiness responsibilities as described in Part-M are covered by the persons that constitute that group. In the case of small operators where the 'nominated postholder' for continuing airworthiness constitutes himself/herself the 'group of persons', this paragraph may be merged with the previous one.)

## d) Duties and responsibilities

(This paragraph should further elaborate the duties and responsibilities of all the nominated persons and of any other management personnel.)

e) Manpower resources and training policy

## (1) Manpower resources

(This paragraph should give broad figures to show that the number of people assigned to the performance of the approved continuing airworthiness activity is adequate. It is not necessary to give the detailed number of employees of the whole company, but only the number of those involved in continuing airworthiness. This could be presented as follows:)

As of 28 November 2003, the number of employees assigned to the performance of the continuing airworthiness management system is the following:

	Full-time	Part-time in equivalent full-time
Quality monitoring	AA	aa = AA'
Continuing airworthiness management	ВВ	bb = BB'
(Detailed information about the	BB1	bb1 = BB1'
management of group of persons)	BB2	bb2 = BB2'
Other	CC	cc =CC'
Total	TT	tt = TT'
Total man-hours	TT + TT'	

(Note: According to the size and complexity of the organisation, this table may be further developed or simplified.)

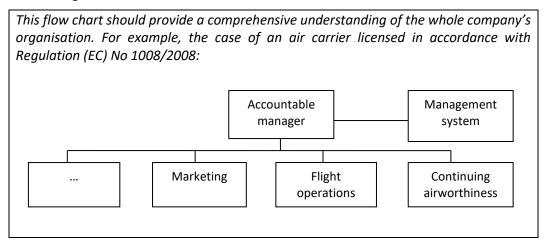
## (2) Training policy

(This paragraph should show that the training and qualification standards for the personnel mentioned above are consistent with the size and complexity of the organisation. It should also explain how the need for recurrent training is assessed and how training recording and follow-up is performed.)



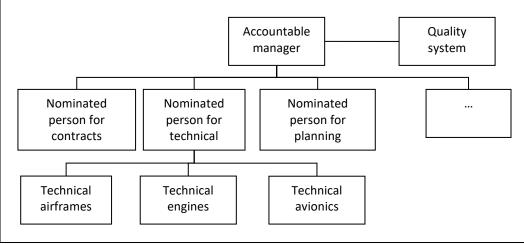
# 0.4 Management organisation charts

## a) General organisation chart



## b) Continuing airworthiness management organisation chart

This flow chart should give further details on the continuing airworthiness management system, and should clearly show the independence of the quality monitoring system, including the links between the quality department and the other departments (see example below). This flow chart may be combined with the one above or subdivided as necessary, depending on the size and complexity of the organisation.



# 0.5 Procedure to notify the competent authority of changes to the organisation's activities/approval/location/personnel

(This paragraph should explain the cases where the company should inform the competent authority prior to incorporating proposed changes, for instance:

The accountable manager (or any nominated person such as the nominated postholder or the quality manager) will notify the competent authority of any change concerning:

- (1) the company's name and location(s);
- (2) the group of persons as specified in paragraph 0.3.c); and

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(3) operations, procedures and technical arrangements, as far as they may affect the approval.

Joe Bloggs will not incorporate such changes until they have been assessed and approved by the competent authority.)

## 0.6 Exposition amendment procedure

(This paragraph should explain who is responsible for the amendment of the exposition and its submission to the competent authority for approval. This may include, if agreed by the competent authority, the possibility for the approved organisation to approve internally minor amendments that have no impact on the approval held. The paragraph should then specify what types of amendments are considered minor and major, and what the approval procedures for both cases are.)

## PART 1 — CONTINUING AIRWORTHINESS MANAGEMENT PROCEDURES

## 1.1 Aircraft technical log utilisation and MEL application

or

## 1.1 Aircraft continuing airworthiness record system utilisation

a) Aircraft technical log and/or continuing airworthiness record system

## (1) General

(It may be useful to recall, in this introductory paragraph, the purpose of the aircraft technical log system and/or the continuing airworthiness record system, with special attention to the options of  $\underline{\mathsf{M.A.305}}$  and  $\underline{\mathsf{M.A.306}}$ .

For that purpose, the paragraphs  $\underline{\text{M.A.305}}$  and  $\underline{\text{M.A.306}}$  may be quoted or further explained.)

# (2) Instructions for use

(This paragraph should provide instructions for using the aircraft technical log and/or continuing airworthiness record system. It should emphasise the respective responsibilities of the maintenance personnel and operating crew. Samples of the technical log and/or continuing airworthiness record system should be included in Part 5 'Appendices' in order to provide enough detailed instructions.)

## (3) Aircraft technical log approval

(This paragraph should explain who is responsible for submitting the aircraft technical log, and any subsequent amendment thereto, to the competent authority for approval and what is the procedure to be followed.)

## b) MEL application

(The MEL is a document not controlled by the CAMO and the decision of whether accepting or not the operation with a defect deferred in accordance with the MEL is normally the responsibility of the operating crew. This paragraph should explain in sufficient detail the MEL application procedure, because the MEL is a tool that the personnel involved in continuing airworthiness and maintenance have to be familiar with in order to ensure proper and efficient communication with the crew in case of a defect rectification to be deferred.)

(This paragraph does not apply to those types of aircraft that do not have an MEL.)



#### (1) General

(This paragraph should explain broadly what an MEL document is. The information could be extracted from the aircraft flight manual.)

#### (2) **MEL** categories

(Where an owner/operator uses a classification system placing a time constraint on the rectification of defects, it should be explained here what are the general principles of such a system. It is essential for the personnel involved in continuing airworthiness and maintenance to be familiar with it for the management of the MEL's deferred defect rectification.)

#### (3) **Application**

(This paragraph should explain how the continuing airworthiness and maintenance personnel make the flight crew aware of an MEL limitation. This should refer to the technical log procedures.)

#### (4) Acceptance by the crew

(This paragraph should explain how the crew notifies their acceptance or nonacceptance of the MEL deferment in the technical log.)

#### (5) Management of the MEL time limits

(Once a technical limitation is accepted by the crew, the defect must be rectified within the time limit specified in the MEL. There should be a system to ensure that the defect will actually be rectified before that time limit. This system could be the aircraft technical log for those (small) operators that use it as a planning document, or a specific follow-up system where control of the maintenance time limit is ensured by other means such as data processed planning systems.)

#### (6) MEL time limitation overrun

(The competent authority may allow the owner/operator to overrun the MEL time limitation under specific conditions. Where applicable, this paragraph should describe the specific duties and responsibilities with regard to controlling these extensions.)

#### 1.2 Aircraft maintenance programme — development and amendment

#### a) General

(This introductory paragraph should recall that the purpose of a maintenance programme is to provide maintenance planning instructions necessary for the safe operation of the aircraft.)

#### b) Content

(This paragraph should explain what is (are) the format(s) of the aircraft maintenance programme(s). Appendix I to AMC M.A.302(a) and M.B.301(d) should be used as a guideline to develop this paragraph.)

#### c) Development

#### (1) **Sources**

(This paragraph should explain what are the sources (MRB, MPD, maintenance manual, etc.) used for the development of an aircraft maintenance programme.)

## (2) Responsibilities

(This paragraph should explain who is responsible for the development of an aircraft maintenance programme.)

## (3) Manual amendments

(This paragraph should demonstrate that there is a system for ensuring the continuing validity of the aircraft maintenance programme. Particularly, it should show how any relevant information is used to update the aircraft maintenance programme. This should include, as applicable, MRB report revisions, consequences of modifications, manufacturer and competent authority recommendations, inservice experience, and reliability reports.)

## (4) Acceptance by the authority

(This paragraph should explain who is responsible for the submission of the maintenance programme to the competent authority and what the procedure to follow is. This should in particular address the issue of the approval for variation to maintenance periods either by the competent authority or by a procedure in the maintenance programme for the organisation to approve internally certain changes.)

## 1.3 Time and continuing airworthiness records, responsibilities, retention and access

## a) Hours and cycles recording

(The recording of flight hours and cycles is essential for the planning of maintenance tasks. This paragraph should explain how the continuing airworthiness management organisation has access to the current flight hours and cycles information and how it is processed through the organisation.)

## b) Records

(This paragraph should give in detail the type of company documents that are required to be recorded and what are the recording period requirements for each of them. This can be provided by a table or series of tables that would include the following:

- family of document (if necessary),
- name of document,
- retention period,
- responsible person for retention,
- place of retention.)

## c) Preservation of records

(This paragraph should set out the means provided to protect the records from fire, flood, etc., as well as the specific procedures in place to ensure that the records will not been altered during the retention period (especially computer records).)

## d) Transfer of continuing airworthiness records

(This paragraph should set out the procedure for the transfer of records in case of purchase/lease-in, sale/lease-out and transfer of an aircraft to another organisation. In particular, it should specify which records have to be transferred and who is responsible for the coordination (if necessary) of the transfer.)

## 1.4 Accomplishment and control of airworthiness directives

(This paragraph should demonstrate that there is a comprehensive system in place for the management of airworthiness directives. This paragraph may, for instance, include the following subparagraphs:)

a) Airworthiness directive information

(This paragraph should explain what the AD information sources are and who receives them in the company. Where available, multiple sources (e.g. Agency + competent authority + manufacturer or association) may be useful.)

b) Airworthiness directive decision

(This paragraph should explain how and by whom the AD information is analysed and what kind of information is provided to the contracted maintenance organisations in order to plan and perform the airworthiness directive. This should include as necessary a specific procedure for the management of emergency airworthiness directives.)

c) Airworthiness directive control

(This paragraph should specify how the organisation manages to ensure that all the applicable airworthiness directives are accomplished and that they are accomplished on time. This should include a closed-loop system that allows verifying that for each new or revised airworthiness directive and for each aircraft:

- the AD is not applicable, or
- if the AD is applicable:
  - the AD is not yet accomplished but the time limit is not overdue,
  - the AD is accomplished and any repetitive inspection is identified and performed.

This may be a continuous process or may be based on scheduled reviews.)

## 1.5 Analysis of the effectiveness of the maintenance programme

(This paragraph should show what tools are used in order to analyse the efficiency of the maintenance programme, such as:

- pilot reports (PIREPS),
- air turnbacks,
- spare consumption,
- repetitive technical occurrence and defect,
- technical delays analysis (through statistics, if relevant),
- technical incidents analysis (through statistics, if relevant),
- etc.

This paragraph should also indicate by whom and how this data is analysed, what is the decision process to take action and what kind of action could be taken. This may include:

- amendment of the maintenance programme,
- amendment of maintenance or operational procedures,

etc.)

## 1.6 Non-mandatory modification embodiment policy

(This paragraph should specify how non-mandatory modification information is processed through the organisation, who is responsible for its assessment against the operator's/owner's own needs and operational experience, what are the main criteria for decision and who takes the decision of implementing (or not) a non-mandatory modification.)

#### 1.7 Major repair and modification standards

(This paragraph should set out a procedure for the assessment of the approval status of any major repair or modification before embodiment. This will include the assessment of the need of an Agency or design organisation approval. It should also identify the type of approval required, and the procedure to follow to have a repair or modification approved by the Agency or design organisation.)

## 1.8 Defect reports

a) Analysis

(This paragraph should explain how the defect reports provided by the contracted maintenance organisations are processed by the continuing airworthiness management organisation. Analysis should be conducted in order to give elements to activities such as maintenance programme evolution and non-mandatory modification policy.)

b) Liaison with manufacturers and regulatory authorities

(Where a defect report shows that such defect is likely to occur to other aircraft, a liaison should be established with the manufacturer and the certification competent authority so that they may take all the necessary action.)

c) Deferred defect policy

(Defects such as cracks and structural defects are not addressed in the MEL and CDL. However, it may be necessary in certain cases to defer the rectification of a defect. This paragraph should establish the procedure to be followed in order to be sure that the deferment of any defect will not lead to any safety concern. This will include appropriate liaison with the manufacturer.)

## 1.9 Engineering activity

(Where applicable, this paragraph should present the scope of the organisation's engineering activity in terms of approval of modifications and repairs. It should set out a procedure for developing and submitting a modification/repair design for approval to the Agency and include reference to the supporting documentation and forms used. It should identify the person in charge of accepting the design before submission to the Agency or the competent authority.

Where the organisation has a DOA capability under Part-21, it should be indicated here and the related manuals should be referred too.)

#### 1.10 Reliability programmes

(This paragraph should explain appropriately the management of a reliability programme. It should at least address the following:

- extent and scope of the reliability programme,
- specific organisational structure, duties and responsibilities,

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- establishment of reliability data,
- analysis of reliability data,
- corrective action system (maintenance programme amendment),
- scheduled reviews (reliability meetings and when the participation of the competent authority is needed.)

(This paragraph may, where necessary, be subdivided as follows:)

- a) Airframe
- b) Propulsion
- c) Component

## 1.11 Pre-flight inspections

(This paragraph should show how the scope and definition of pre-flight inspection, that is usually performed by the operating crew, are kept consistent with the scope of the maintenance performed by the contracted maintenance organisations. It should show how the evolution of the content of the pre-flight inspection and of the maintenance programme are concurrent.)

(The following paragraphs are self-explanatory. Although these activities are normally not performed by continuing airworthiness personnel, these paragraphs have been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures.)

- a) Preparation of aircraft for flight
- b) Subcontracted ground-handling function
- c) Security of cargo and baggage loading
- d) Control of refueling, quantity/quality
- e) Control of snow, ice, residues from de-icing or anti-icing operations, dust and sand contamination to an approved standard

## 1.12 Aircraft weighing

(This paragraph should state the cases where an aircraft has to be weighed (for instance, after a major modification because of weight and balance operational requirements, etc.), who performs it, according to which procedure, who calculates the new weight and balance, and how the result is processed in the organisation.)

## 1.13 Maintenance check flight (MCF) procedures

(The criteria for performing an MCF are normally included in the aircraft maintenance programme or derived by the scenarios described in <u>GM M.A.301(i)</u>. This paragraph should explain how the MCF procedure is established in order to meet its intended purpose (for instance, after a heavy maintenance check, after engine or flight control removal installation, etc.), and the release procedures to authorise such an MCF.)

## PART 2 — QUALITY SYSTEM

## 2.1 Continuing airworthiness quality policy, plan and audit procedure

a) Continuing airworthiness quality policy

(This paragraph should include a formal quality policy statement — that is a commitment to what the quality system is intended to achieve. It should include as a minimum the monitoring compliance with Part-M and with any additional standards specified by the organisation.)

b) Continuing airworthiness quality plan

(This paragraph should show how the quality plan is established. The quality plan will consist of a quality audit and sampling schedule that should cover all the areas specific to Part-M in a definite period of time. However, the scheduling process should also be dynamic and allow for special evaluations when trends or concerns are identified. In case of subcontracting, this paragraph should also address the planning of the auditing of subcontractors at the same frequency with the rest of the organisation.)

c) Continuing airworthiness quality audit procedure

(Quality audit is a key element of the quality system. Therefore, the quality audit procedure should be sufficiently detailed to address all the steps of an audit from preparation to conclusion; it should show the audit report format (e.g. by reference to paragraph 5.1 'Sample of document'), and should explain the rules for the distribution of audit reports in the organisation (e.g. involvement of the quality manager, accountable manager, nominated postholder, etc.).)

d) Continuing airworthiness quality audit remedial action procedure

(This paragraph should explain what system is put in place in order to ensure that the corrective actions are implemented on time and that the result of the corrective actions meets the intended purpose. For instance, where this system consists in periodical corrective actions review, instructions should be given on how such reviews should be conducted and what should be evaluated.)

## 2.2 Monitoring of continuing airworthiness management activities

(This paragraph should set out a procedure to periodically review the activities of the continuing airworthiness management personnel and how they fulfil their responsibilities, as defined in Part 0.)

## 2.3 Monitoring of the effectiveness of the maintenance programme(s)

(This paragraph should set out a procedure to periodically review that the effectiveness of the maintenance programme(s) is actually analysed as defined in Part 1.)

## 2.4 Monitoring that all maintenance is carried out by an appropriate maintenance organisation

(This paragraph should set out a procedure to periodically review that the approval of the contracted maintenance organisations is relevant for the maintenance of the operator's fleet. This may include feedback information from any contracted organisation on any actual or contemplated amendment in order to ensure that the maintenance system remains valid and to anticipate any necessary change in the maintenance agreements.

If necessary, the procedure may be subdivided as follows:

a) Aircraft maintenance

- b) Engines
- c) Components)

# 2.5 Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor

(This paragraph should set out a procedure to periodically review that the continuing airworthiness management personnel are satisfied that all contracted maintenance is carried out in accordance with the contract. This may include a procedure to ensure that the system allows all the personnel involved in the contract (including the contractors and their subcontractors) to familiarise themselves with its terms and that, for any contract amendment, relevant information is distributed in the organisation and to the contractor.)

## 2.6 Quality audit personnel

(This paragraph should establish the required training and qualification standards for auditors. Where persons act as part-time auditors, it should be emphasised that they must not be directly involved in the activity they are auditing.)

#### PART 3 — CONTRACTED MAINTENANCE

#### 3.1 Procedures for contracted maintenance

a) Procedures for the development of maintenance contracts

(This paragraph should explain the procedures that the organisation follows to develop the maintenance contract. The CAMO processes to implement the different elements described in <a href="Appendix XI">Appendix XI to AMC M.A.708(c)</a> should be explained. In particular, it should cover responsibilities, tasks and interaction with the maintenance organisation and with the owner/operator.

This paragraph should also describe, when necessary, the use of work orders for unscheduled line maintenance and component maintenance as per  $\underline{\mathsf{M.A.708(d)}}$ . The organisation may develop a work order template to ensure that the applicable elements of  $\underline{\mathsf{Appendix XI to AMC M.A.708(c)}}$  are considered. Such a template should be included in Part 5.1.)

b) Maintenance contractor selection procedure

(This paragraph should explain how a maintenance contractor is selected by the CAMO. Selection should not be limited to the verification that the contractor is appropriately approved for the specific type of aircraft, but also that the contractor has the industrial capacity to undertake the required maintenance. The selection procedure should preferably include a contract review process in order to ensure that:

- the contract is comprehensive and that it has no gaps or unclear areas,
- everyone involved in the contract (both at the continuing airworthiness management organisation and at the maintenance contractor) agrees with the terms of the contract and fully understands their responsibilities.
- that functional responsibilities of all parties are clearly identified.

The CAMO should agree with the operator on the process to select a maintenance organisation before concluding any contract with a maintenance organisation.)

## 3.2 Quality audit of aircraft

(This paragraph should set out the procedure when performing a quality audit of an aircraft. It should set out the differences between an airworthiness review and a quality audit. This procedure may include:

- compliance with approved procedures;
- contracted maintenance is carried out in accordance with the contract;
- continued compliance with Part-M.)

#### PART 4 — AIRWORTHINESS REVIEW PROCEDURES

#### 4.1 Airworthiness review staff

(This paragraph should establish the working procedures for the assessment of the airworthiness review staff. The assessment addresses experience, qualification, training, etc. A description should be given regarding the issue of authorisations for the airworthiness review staff and how records are kept and maintained.)

#### 4.2 Review of aircraft records

(This paragraph should describe in detail the aircraft records that are required to be reviewed during the airworthiness review. The level of detail that needs to be reviewed as well as the number of records that needs to be reviewed during a sample check should be described.)

#### 4.3 Physical survey

(This paragraph should describe how the physical survey needs to be performed. It should list the topics that need to be reviewed, the physical areas of the aircraft to be inspected, which documents on board the aircraft need to be reviewed, etc.)

## 4.4 Additional procedures for recommendations to competent authorities for the import of aircraft

(This paragraph should describe the additional tasks regarding the recommendation for the issue of an airworthiness review certificate in the case of import of aircraft. This should include: communication with the competent authority of registry, additional items to be reviewed during the airworthiness review of the aircraft, specification of maintenance required to be carried out, etc.)

# 4.5 Recommendations to competent authorities for the issue of airworthiness review certificates (ARCs)

(This paragraph should stipulate the communication procedures with the competent authorities in case of a recommendation for the issue of an airworthiness review certificate. In addition, the content of the recommendation should be described.)

## 4.6 Issue of airworthiness review certificates (ARCs)

(This paragraph should set out the procedure for the issue of ARCs. It should address record-keeping, distribution of ARC copies, etc. The procedure should ensure that an ARC is issued only after an airworthiness review has been properly carried out.)

## 4.7 Airworthiness review records, responsibilities, retention and access

(This paragraph should describe how records are kept, duration of record-keeping, location where records are stored, access to records, and responsibilities.)



#### PART 4B — PERMIT TO FLY PROCEDURES

## 4B.1 Conformity with approved flight conditions

(The procedure should indicate how conformity with approved flight conditions is established, documented and attested by an authorised person.)

## 4B.2 Issue of the permit to fly under the CAMO privilege

(The procedure should describe the process to complete the EASA Form 20b (see Appendix IV to Part-21) and how compliance with 21.A.711(d) and (e) is established before signing off the permit to fly. It should also describe how the organisation ensures compliance with 21.A.711(g) for the revocation of the permit to fly.)

#### 4B.3 Permit to fly authorised signatories

(The person(s) authorised to sign off the permit to fly under the privilege of  $\underline{\mathsf{M.A.711(c)}}$  should be identified (name, signature and scope of authority) in the procedure, or in an appropriate document linked to the CAME.)

## 4B.4 Interface with the local authority for the flight

(The procedure should include provisions describing the communication with the local authority for flight clearance and compliance with the local requirements, since those elements are outside the scope of the conditions of 21.A.708(b) (see Part 21.A.711(e)).)

#### 4B.5 Permit to fly records, responsibilities, retention and access

(This paragraph should describe how records are kept, duration of record-keeping, location where records are stored, access to records, and responsibilities.)

#### PART 5 — APPENDICES

#### 5.1 Sample documents

(A self-explanatory paragraph.)

## 5.2 List of airworthiness review staff

(A self-explanatory paragraph.)

## 5.3 List of subcontractors as per M.A.711(a)(3)

(A self-explanatory paragraph; in addition, it should set out that the list should be periodically reviewed.)

## 5.4 List of approved maintenance organisations contracted

(This paragraph should include the list of contracted maintenance organisations, detailing the scope of the contracted work. In addition, it should set out that the list should be periodically reviewed.)

## 5.5 Copy of contracts for subcontracted work (Appendix II to AMC M.A.711(a)(3))

(A self-explanatory paragraph.)

Annex I (Part-M)

APPENDICES TO AMC AND GM TO

ANNEX I (Part-M)

## Appendix VI to AMC M.B.602(f) — EASA Form 6F

ED Decision 2020/002/R

M.A. SUBPART F APPROVAL RECOMN	IENDATION REPORT EASA FORM 6F
Part 1: General	
Name of organisation:	
Approval reference:	
Requested approval rating/	
EASA Form 3 dated*:	
Other approvals held (If app.)	
Address of facility audited:	
Audit period: from	to
Date(s) of audit(s):	
Audit reference(s):	
Persons interviewed:	
Competent authority surveyor:	Signature(s):
Competent authority office:	Date of EASA Form 6F part 1 completion:
	*delete where applicable



	M.A. SUBPART F APPROVAL REC	OMMENDA	TION REPOR	RT	EASA FORM	1 6F
Part 2: M.A. Subpart F Compliance Audit Review						
The five columns may be labelled and used as necessary to record the approval product line or facility,						
including subcontractor's, reviewed. Against each column used of the following M.A. Subpart F						
	phs please either tick ( $$ ) the box i					
•	iance and specify the reference of		•	o the box or	enter N/A v	vhere an item
	cable, or N/R when applicable but	not reviewe	ed.			
Para	Subject					
M.A.603	Extent of approval					
		I——I			<u> </u>	
M.A.604	Maintenance Organisation					
	Manual (see Part 3)					
M.A.605	Facilities					
M.A.606	Personnel requirements					
<u></u>	· c.scc. · cqucc.					
M.A.607	Certifying staff and					
	airworthiness review staff					
M.A.608	Components, Equipment and					
	tools					
M.A.609	Maintenance data					
M.A.610	Maintenance work orders					
WI.A.010	Wallet Work orders					
M.A.611	Maintenance standards					
		<u> </u>		<u>I I</u>	<u>I</u>	
M.A.612 Aircraft certificate of release to						
	service					
M.A.613	Component certificate of					
	release to service					
M.A.614	Maintenance and airworthiness					
	review records					
M.A.615	Privileges of the organisation					
WI.A.013	rivileges of the organisation					
M.A.616	Organisational review					
1010	organisational review					
M.A.617	Changes to the approved					
	maintenance organisation					
	-		<u>-</u>			
M.A.619	Findings					
Competent authority surveyor(s): Signature(s):						
Competent	authority office:	Date o	of EASA Form	n 6F part 2 co	ompletion:	



		ART F APPROVAL RECOMMENDATION REPORT EASA FORM 6F	
		h M.A. Subpart F maintenance organisation manual (MOM)	
		e box if satisfied with compliance; or cross (x) if not satisfied with compliance and	
•		f the Part 4 finding; or enter N/A where an item is not applicable; or N/R when	
applicable bu		ewed.	
Part A	General		
1.1		Table of content	
1.2		List of effective pages	
1.3		Record of amendments	
1.4		Amendment procedure	
1.5		Distribution	
1.6		Accountable manager's statement	
Part B	Description	on	
2.1		Organisation's scope of work	
2.2		General presentation of the organisation	
2.3		Name and title of management personnel	
2.4		Organisation chart	
2.5		Certifying staff and airworthiness review staff	
2.6		Personnel	
2.7		General description of the facility	
2.8		Tools, equipment and material	
2.9		Maintenance data	
Part C General procedures			
3.1		Organisational review	
3.2		Training	
3.3		Subcontracting of specialised services	
3.4		One time authorisations	

	M.A. SUBPART F APPROVAL RECOMMENDATION REPORT EASA FORM 6F
Part 3: Com	pliance with M.A. Subpart F maintenance organisation manual (MOM)
Part D	Working Procedures
4.1	Work order acceptance
4.2	Preparation and issue of work package
4.3	Logistics
4.4	Execution
4.5	Release to service – Certifying staff
4.6	Release to service – Supervision
4.7	Release to service – Certificate of release to service
4.8	Records
4.9	Airworthiness review procedures and records for ELA1 aircraft not involved in commercial operations
4.10	[Reserved]
4.11	Special procedures
4.12	Occurrence reporting
4.13	Management of indirect approval of the manual
Part E	Appendices
5.1	Sample of all documents used
5.2	List of subcontractors.
5.3	List of maintenance locations
5.4	List of <u>Part-145</u> , <u>M.A. Subpart F</u> or Part-CAO organisations
MOM refere	ence: MOM amendment:
Competent	authority audit staff: Signature(s):
Competent	authority office: Date of EASA Form 6F part 3 completion:



	M.A. SUBPART F APPROVAL RECOMMENDATION REPORT		EA	SA FORM	6 <b>F</b>
Part 4: Find	ings regarding M.A. Subpart F compliance status				
	and 2 finding should be recorded whether it has been recti	ified	d or not an	d should b	e identified
by a simple	cross reference to the Part 2 requirement. All non-rectified	fin	dings shou	ld be copie	ed in writing
	nisation for the necessary corrective action.				
Part	Audit reference(s):	L	Corrective action		
2 or 3	Findings	е	Date	Date	Reference
ref.		V	Due	Closed	
		е			
		1			



M.A. SUBPART F APPROVAL RECOMMENDATION REPORT EASA FORM 6F
Part 5: M.A. Subpart F approval or continued approval or change recommendation
Name of organisation:
Approval reference:
Audit reference(s):
The following M.A. Subpart F scope of approval is recommended for this organisation:
Or, it is recommended that the M.A. Subpart F scope of approval specified in EASA Form 3 referenced be continued.
Name of recommending competent authority surveyor:
Signature of recommending competent authority surveyor:
Competent authority office:
Date of recommendation:
EASA Form 6F review (quality check): Date:

## Appendix VII to AMC M.B.702(f) — EASA Form 13

ED Decision 2021/009/R

M.A. SUBPART G APPROVAL RECOM	MMENDATION REPORT	EASA FORM 13
Part 1: General		
Name of organisation:		
Approval reference:		
Requested approval rating/		
EASA Form 14 or AOC dated*:		
Other approvals held (if app.)		
Address of facility(ies) audited:		
Audit period: from	to	
Date(s) of audit(s):		
Audit reference(s):		
Persons interviewed:		
Competent authority surveyor:	Signature(s):	
Competent authority office:	Date of EASA Form 13 Part 1 cor	mpletion:
		*delete as appropriate



	M.A. SUBPART G APPROVAL RECOMME	NDATION REPORT	EASA FORM 13		
Part 2: M.A. Subpart G Compliance Audit Review					
The five columns may be labelled and used as necessary to record the approval product line or facility, including subcontractor's, reviewed. Against each column used of the following M.A. Subpart G subparagraphs, please either tick ( $$ ) the box if satisfied with compliance, or cross (X) the box if not satisfied with compliance and specify the reference of the Part 4 finding next to the box, or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.					
Para	Subject				
M.A.703	Extent of approval				
M.A.704	Continuing airworthiness management exposition (see Part 3)				
<u>M.A.705</u>	Facilities				
<u>M.A.706</u>	Personnel requirements				
M.A.707	Airworthiness review staff				
M.A.708	Continuing airworthiness management				
M.A.202 ML.A.202	Occurrence reporting				
M.A.709	Documentation				
M.A.710	Airworthiness review				
M.A.711	Privileges of the organisation				
<u>M.A.712</u>	Quality system				
<u>M.A.713</u>	Changes to the approved continuing airworthiness organisation				
M.A.714	Record-keeping				
M.A.716	Findings				
Competent authority surveyor(s): Signature(s):					
Competent authority office: Date of EASA Form 13 Part 2 completion:					



ı	M.A. SU	BPART G APPROVAL RECOMMENDATION REPORT EASA FORM 13
		rith M.A. Subpart G continuing airworthiness management exposition (CAME)
		the box if satisfied with compliance; or cross (x) if not satisfied with compliance and
		of the Part 4 finding; or enter N/A where an item is not applicable; or N/R when
applicable but PART 0		
PARTU	Gener	al organisation
0.1		Corporate commitment by the accountable manager
0.2		General information
0.3		Management personnel
0.4		Management organisation chart
0.5		Notification procedure to the competent authority regarding changes to the organisation's activities/approval/location/personnel
0.6		Exposition amendment procedures
PART 1	Contir	nuing airworthiness management procedures
1.1		Aircraft technical log utilisation and MEL application Aircraft continuing airworthiness record system utilisation
1.2		Aircraft maintenance programmes – development amendment and approval
1.3		Time and continuing airworthiness records, responsibilities, retention, access
1.4		Accomplishment and control of airworthiness directives
1.5		Analysis of the effectiveness of the maintenance programme(s)
1.6		Non mandatory modification embodiment policy
1.7		Major repair and modification standards
1.8		Defect reports
1.9		Engineering activity
1.10		Reliability programmes
1.11		Pre-flight inspections
1.12		Aircraft weighing
1.13		Check flight procedures
PART 2	Qualit	y system
2.1		Continuing airworthiness quality policy, plan and audits procedure
2.2		Monitoring of continuing airworthiness management activities
2.3		Monitoring of the effectiveness of the maintenance programme(s)
2.4		Monitoring that all maintenance is carried out by an appropriate maintenance organisation
2.5		Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor
2.6		Quality audit personnel



PART 3	Contra	acted Maintenance
3.1		Procedures for contracted maintenance
3.2		Quality audit of aircraft
PART 4	Airwo	rthiness review procedures
4.1		Airworthiness review staff
4.2		Review of aircraft records
4.3		Physical survey
4.4		Additional procedures for recommendations to competent authorities for the import of aircraft
4.5		Recommendations to competent authorities for the issue of airworthiness review certificates
4.6		Issuance of airworthiness review certificates
4.7		Airworthiness review records, responsibilities, retention and access
PART 4B	Permi	t to fly procedures
4B.1		Conformity with approved flight conditions
4B.2		Issue of permit to fly under the CAMO privilege
4B.3		Permit to fly authorised signatories
4B.4		Interface with the local authority for the flight
4B.5		Permit to fly records, responsibilities, retention and access
PART 5	Appen	dices
5.1		Sample Documents
5.2		List of airworthiness review staff
5.3		List of subcontractors as per M.A.711(a)(3)
5.4		List of approved maintenance organisations contracted
5.5		Copy of contracts for subcontracted work ( <u>Appendix II to AMC M.A.711(a)(3)</u> )
CAME Refere	uthority	
Competent au	athority	office: Date of EASA Form 13 Part 3 completion:



M.	M.A. SUBPART G APPROVAL RECOMMENDATION REPORT EASA FORM 13				
Part 4: Findings	regarding M.A. Subpart G compliance status				
Each level 1 and	d 2 finding should be recorded whether it has been	rect	ified or not an	d should b	e identified by
a simple cross r	eference to the Part 2 requirement. All non-rectifie	d fir	ndings should	be copied i	in writing to the
organisation fo	r the necessary corrective action.				
Part	Audit reference(s):	L	Corrective ac	tion	
2 or 3	Findings	е			
ref.		٧			
		е	Date	Date	Reference
		ı	Due	Closed	



M.A. SUBPART G APPROVAL RECOMMENDATIO	N REPORT	EASA FORM 13
Part 5: M.A. Subpart G approval or continued approval or cha	ange recommendati	on*
Name of organisation:		
Approval reference:		
Audit reference(s):		
The following M.A. Subpart G scope of approval is recommen	ded for this organisa	ition:
Or, it is recommended that the M.A. Subpart G scope of appro be continued.	oval specified in <u>EAS</u>	A Form 14 referenced
Name of recommending competent authority surveyor:		
Signature of recommending competent authority surveyor:		
Competent authority office:		
Date of recommendation:		
EASA Form 13 review (quality check):	Date:	
		*delete as appropriate

## Appendix VIII to AMC M.A.616 — Organisational Review

ED Decision 2020/002/R

This is only applicable to organisations with less than 10 maintenance staff members. For larger organisations, the principles and practices of an independent quality system should be used.

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, subcontracting of specialised services, etc.), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the Maintenance Organisation Manual (MOM):

- a. Identification of the person responsible for the organisational review programme.
  - By default, this person should be the accountable manager, unless he delegates this responsibility to (one of) the M.A.606(b) person(s).
- b. Identification and qualification criteria for the person(s) responsible for performing the organisational reviews.
  - These persons should have a thorough knowledge of the regulations and of the maintenance organisation procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the competent authority).
- c. Elaboration of the organisational review programme:
  - Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the MOM should be addressed.
  - A schedule for the accomplishment of the checklist items. Each item should be checked
    at least every 12 months. The organisation may choose to conduct one full review
    annually or to conduct several partial reviews.
- d. Performance of organisational reviews

Each checklist item should be answered using an appropriate combination of:

- review of records, documentation, etc;
- sample check of aircraft under contract or being maintained under a work order;
- interview of personnel involved;
- review of discrepancies and difficulty internal reports (e.g. notified difficulties in using current procedures and tools, systematic deviations from procedures, etc.);
- review of complaints filed by customers after delivery.
- e. Management of findings and occurrence reports.
  - All findings should be recorded and notified to the affected persons.
  - All level 1 findings, in the sense of <u>M.A.619(a)</u>, should be immediately notified to the competent authority and all necessary actions on aircraft in service should be immediately taken.

- All occurrence reports should be reviewed with the aim for continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, unsafe behaviours, etc.), and dismissed alerts that, had they been recognised and appropriately managed before the event, could have resulted in the undesired event being prevented.
- Corrective and preventive actions should be approved by the person responsible for the organisational review programme and implemented within a specified time frame.
- Once the person responsible for the organisational review programme is satisfied that
  the corrective action is effective, closure of the finding should be recorded along with a
  summary of the corrective action.
- The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review programme.

Following is a typical example of a simplified organisational review checklist, to be adapted as necessary to cover the MOM procedures:

#### 1 - Scope of work

#### Check that:

- All aircraft and components under maintenance or under contract are covered in EASA Form 3.
- The scope of work in the MOM does not disagree with EASA Form 3.
- No work has been performed outside the scope of EASA Form 3 and the MOM.

#### 2 - Maintenance data

- Check that maintenance data to cover the aircraft in the scope of work of the MOM are present and up-to-date.
- Check that no change has been made to the maintenance data from the TC holder without being notified.

#### 3 - Equipment and Tools

- Check the equipment and tools against the lists in the MOM and check if still appropriate to the TC holder's instructions.
- Check tools for proper calibration (sample check).

## 4 – Stores

- Do the stores meet the criteria in the procedures of the MOM?
- Check by sampling some items in the store for presence of proper documentation and any overdue items.

## 5 - Certification of maintenance and airworthiness review

- Has maintenance on products and components been properly certified?
- Have implementation of modifications/repairs been carried out with appropriate approval of such modifications/repairs (sample check)?
- Have airworthiness reviews been properly performed and the airworthiness review certificate properly been issued?

#### 6 - Relations with the owners/operators

- Has maintenance been carried out with suitable work orders?
- When a contract has been signed with an owner/operator, has the obligations of the contracts been respected on each side?

#### 7 - Personnel

- Check that the current accountable manager and other nominated persons are correctly identified in the approved MOM.
- If the number of personnel has decreased or if the activity has increased, check that the staff are still adequate to ensure a safe product.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.
- Check that the staff have been trained, as necessary, to cover changes in:
  - regulations,
  - competent authority publications,
  - the MOM and associated procedures,
  - the products in the scope of work,
  - maintenance data (significant ADs, SBs, etc.).

#### 8 - Maintenance contracted

- Sample check of maintenance records:
  - Existence and adequacy of the work order,
  - Data received from the maintenance organisation:
    - Valid CRS including any deferred maintenance,
    - List of removed and installed equipment and copy of the associated <u>EASA</u>
       <u>Form 1</u> or equivalent.
- Obtain a copy of the current approval certificate (EASA Form 3) of the maintenance organisations contracted.

## 9 - Maintenance subcontracted

Check that subcontractors for specialised services are properly controlled by the organisation.

## 10 - Technical records and record-keeping

- Have the maintenance actions been properly recorded?
- Have the certificates (EASA Form 1 and Conformity certificates) been properly collected and recorded?
- Perform a sample check of technical records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

## 11 - Occurrence reporting procedures

Check that reporting is properly performed.



Annex I (Part-M)

APPENDICES TO AMC AND GM TO
ANNEX I (Part-M)

Actions taken and recorded.

Annex I (Part-M)

APPENDICES TO AMC AND GM TO

ANNEX I (Part-M)

## Appendix IX to AMC M.A.602 and AMC M.A.702 — EASA Form 2

ED Decision 2020/002/R

Application for				
Comp	etent authority	Part-M Subpart F Approval* Part-145 Approval* Part-M Subpart G Approval* Part-CAMO approval* Part-CAO approval*	Initial */ Change*	
1.	Registered name of applican	t:		
2.	Trading name (if different):			
3.	Addresses requiring approval:			
4.	Tel	Fax		
	E-mail			
5.	Terms of approval and scope	of work relevant to this application:		
6.	Position and name of the (pr	oposed*) Accountable Manager:		
7.	Signature of the (proposed*)	Accountable Manager:		
8.	Place:			
9.	Date:			
Note (1): A note giving the address(es) to which the EASA Form(s) should be sent.				
Note (2): An optional note to give information on any fees payable.				
* delete as applicable				

EASA Form 2 Page 1 of 1

Annex I (Part-M)

APPENDICES TO AMC AND GM TO

ANNEX I (Part-M)

# Appendix X to AMC M.B.602(a) and AMC M.B.702(a) — EASA Form

ED Decision 2015/029/R

[COMPETENT AUTHORITY]			
Details of Management Personnel required to be accepted as specified in Part			
1.	Name:		
2.	Position:		
3.	Qualifications relevant to the item (2) position:		
4.	Work experience relevant to the item (2) position:		
Ciamat.	Data		
Signature: Date:			
On completion, please send this form under confidential cover to the competent authority			
Competent authority use only  Name and signature of authorised competent authority staff member accepting this person:			
Signat	ure: Date:		
Name:	Office:		

EASA Form 4

Annex I (Part-M)

APPENDICES TO AMC AND GM TO
ANNEX I (Part-M)

## Appendix XI to AMC M.A.708(c) — Contracted maintenance

ED Decision 2020/002/R

#### 1. Maintenance contracts

The following paragraphs are not intended to provide a standard maintenance contract, but to provide a list of the main points that should be addressed, when applicable, in a maintenance contract between the CAMO managing aircraft subject to Part-M and a maintenance organization approved in accordance with Part-145 or Subpart F of Part M. The following paragraphs only address technical matters and exclude matters such as costs, delay, warranty, etc.

When maintenance is contracted to more than one maintenance organisation (for example, aircraft base maintenance to X, engine maintenance to Y, and line maintenance to Z1, Z2 and Z3), attention should be paid to the consistency of the different maintenance contracts.

A maintenance contract is not normally intended to provide appropriate detailed work instructions to personnel. Accordingly, there should be established organisational responsibilities, procedures and routines in the CAMO and the maintenance organisation to cover these functions in a satisfactory way such that any person involved is informed about his/her responsibilities and the procedures that apply. These procedures and routines can be included/appended to the CAME and to the maintenance organisation's manual/MOE, or can consist in separate procedures. In other words, procedures and routines should reflect the conditions of the contract.

## 2. Aircraft/engine maintenance

The following subparagraphs may be adapted to a maintenance contract that applies to aircraft base maintenance, aircraft line maintenance, and engine maintenance.

Aircraft maintenance also includes the maintenance of the engines and APU while they are installed on the aircraft.

## 2.1. Scope of work

The type of maintenance to be performed by the maintenance organisation should be specified unambiguously. In case of line and/or base maintenance, the contract should specify the aircraft type and, preferably, should include the aircraft's registrations.

In case of engine maintenance, the contract should specify the engine type.

## 2.2. Locations identified for the performance of maintenance/certificates held

The place(s) where base, line or engine maintenance, as applicable, will be performed should be specified. The certificate held by the maintenance organisation at the place(s) where maintenance will be performed should be referred to in the contract. If necessary, the contract may address the possibility of performing maintenance at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity to support occasional line maintenance.

## 2.3. Subcontracting

The maintenance contract should specify under which conditions the maintenance organisation may subcontract tasks to a third party (regardless if this third party is approved or not). At least the contract should make reference to M.A.615 and 145.A.75. Additional guidance is provided by the associated AMC/GM. In addition, the CAMO may require the maintenance organisation to obtain the CAMO approval before subcontracting to a third party. Access should be given to the CAMO to any information (especially the quality monitoring information) about the

maintenance organisation's subcontractors involved in the contract. It should, however, be noted that under the CAMO responsibility both the CAMO and its competent authority are entitled to be fully informed about subcontracting, although the competent authority will normally only be concerned with aircraft, engine and APU subcontracting.

#### 2.4. Maintenance programme

The maintenance programme, under which maintenance has to be performed, has to be specified.

The CAMO should have that maintenance programme approved by its competent authority.

## 2.5. Quality monitoring

The terms of the contract should include a provision allowing the CAMO to perform a quality surveillance (including audits) of the maintenance organisation. The maintenance contract should specify how the results of the quality surveillance are taken into account by the maintenance organisation (see also paragraph 2.22. 'Meetings').

## 2.6. Competent authority involvement

The contract should identify the competent authority(ies) responsible for the oversight of the aircraft, the operator, the CAMO, and the maintenance organisation. Additionally, the contract should allow competent authority(ies) access to the maintenance organisation.

#### 2.7. Maintenance data

The contract should specify the maintenance data and any other manual required for the fulfilment of the contract, and how these data and manuals are made available and kept current (regardless if they are provided by the CAMO or by the maintenance organisation).

This may include but is not limited to:

- maintenance programme,
- airworthiness directives,
- major repairs/modification data,
- aircraft maintenance manual,
- aircraft illustrated parts catalogue (IPC),
- wiring diagrams,
- troubleshooting manual,
- Minimum Equipment List (normally on board the aircraft),
- operator's manual,
- flight manual,
- engine maintenance manual,
- engine overhaul manual.

## 2.8. Incoming conditions

The contract should specify in which condition the aircraft should be made available to the maintenance organisation. For extensive maintenance, it may be beneficial that a work scope planning meeting be organised so that the tasks to be performed may be commonly agreed (see also paragraph 2.23 'Meetings').

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## 2.9. Airworthiness directives and service bulletins/modifications

The contract should specify the information that the CAMO is responsible to provide to the maintenance organisation, such as:

- the status of the ADs including due date and the selected means of compliance, if applicable; and
- status of modifications and the decision to embody a modification or an SB.

In addition, the contract should specify the type of information the CAMO will need in return to complete the control of ADs and modification status.

## 2.10. Hours and cycles control

Hours and cycles control is the responsibility of the CAMO, and the contract should specify how the CAMO should provide the current hours and cycles to the maintenance organisation and whether the maintenance organisation should receive the current flight hours and cycles on a regular basis so that it may update the records for its own planning functions (see also paragraph 2.22 'Exchange of information').

#### 2.11. Life-limited parts and time-controlled components

The control of life-limited parts and time-controlled components is the responsibility of the CAMO. The contract should specify whether the CAMO should provide the status of life-limited parts and time-controlled components to the maintenance organisation, and the information that the approved organisation will have to provide to the CAMO about the removal/installation of the life-limited parts and time-controlled components removal/installation so that the CAMO may update its records (see also paragraph 2.22 'Exchange of information').

## 2.12. Supply of parts

The contract should specify whether a particular type of material or component is supplied by the CAMO or by the maintenance organisation, which type of component is pooled, etc. The contract should clearly state that it is the maintenance organisation's responsibility to be in any case satisfied that the component in question meets the approved data/standard and to ensure that the aircraft component is in a satisfactory condition for installation. Additional guidance on the acceptance of components is provided in M.A.402 and 145.A.42.

## 2.13. Pooled parts at line stations

If applicable, the contract should specify how the subject of pooled parts at line stations should be addressed.

## 2.14. Scheduled maintenance

For planning scheduled maintenance checks, the support documentation to be given to the maintenance organisation should be specified. This may include but is not limited to:

- applicable work package, including job cards;
- scheduled component removal list;
- modifications to be incorporated.

When the maintenance organisation determines, for any reason, to defer a maintenance task, it has to be formally agreed with the CAMO. If the deferment goes beyond an approved limit, please refer to paragraph 2.17 'Deviation from the maintenance schedule'. This should be addressed, where applicable, in the maintenance contract.

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## 2.15. Unscheduled maintenance/defect rectification

The contract should specify to which level the maintenance organisation may rectify a defect without reference to the CAMO. It should describe, as a minimum, the management of approval of repairs and the incorporation of major repairs. The deferment of any defect rectification should be submitted to the CAMO.

#### 2.16. Deferred tasks

See paragraphs 2.14 and 2.15 above, as well as <a href="145.A.50(e">145.A.50(e</a>) and <a href="M.A.801(g">M.A.801(g</a>). In addition, for aircraft line and base maintenance, the use of the operator's MEL and the liaison with the CAMO in case of a defect that cannot be rectified at the line station should be addressed.

#### 2.17. Deviation from the maintenance schedule

Deviations from the maintenance schedule have to be managed by the CAMO in accordance with the procedures established in the maintenance programme. The contract should specify the support the maintenance organisation may provide to the operator in order to substantiate the deviation request.

## 2.18. Maintenance check flight

If any maintenance check flight is required after aircraft maintenance, it should be performed in accordance with the procedures established in the continuing airworthiness management exposition or the operator's manual.

#### 2.19. Bench test

The contract should specify the acceptability criterion and whether a representative of the CAMO should witness an engine undergoing test.

## 2.20. Release to service documentation

The release to service has to be performed by the maintenance organisation in accordance with its maintenance organisation procedures. The contract should, however, specify which support forms have to be used (aircraft technical log, maintenance organisation's release format, etc.) and the documentation that the maintenance organisation should provide to the CAMO upon delivery of the aircraft. This may include but is not limited to:

- certificate of release to service,
- flight test report,
- list of modifications embodied,
- list of repairs,
- list of ADs accomplished,
- maintenance visit report,
- test bench report.

#### 2.21. Maintenance record-keeping

The CAMO may subcontract the maintenance organisation to retain some of the maintenance records required by <u>Part-M Subpart C</u>. This means that the CAMO subcontracts under its quality system part of its record-keeping tasks and, therefore, the provisions of <u>M.A.711(a)(3)</u> apply.

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## 2.22. Exchange of information

Each time exchange of information between the CAMO and the maintenance organisation is necessary, the contract should specify what information should be provided and when (i.e. in which case or at what frequency), how, by whom and to whom it has to be transmitted.

## 2.23. Meetings

The maintenance contract should include the provision for a certain number of meetings to be held between the CAMO and the maintenance organisation.

## 2.23.1. Contract review

Before the contract is enforced, it is very important that the technical personnel of both parties, that are involved in the fulfilment of the contract, meet in order to be sure that every point leads to a common understanding of the duties of both parties

## 2.23.2. Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed may be commonly agreed.

#### 2.23.3. Technical meeting

Scheduled meetings may be organised in order to review on a regular basis technical matters such as ADs, SBs, future modifications, major defects found during maintenance check, aircraft and component reliability, etc.

## 2.23.4. Quality meeting

Quality meetings may be organised in order to examine matters raised by the CAMO's quality surveillance and to agree upon necessary corrective actions.

## 2.23.5. Reliability meeting

When a reliability programme exists, the contract should specify the CAMO's and maintenance organisation's respective involvement in that programme, including the participation in reliability meetings.

# Appendix XII to AMC M.A.706(f) and AMC1 M.B.102(c) — Fuel tank safety training

ED Decision 2021/009/R: ED Decision 2016/011/R

This appendix includes general instructions for providing training on Fuel Tank Safety issues.

## A) Effectivity:

- Large aeroplanes as defined in Decision 2003/11/RM of the Executive Director of the Agency (CS-25) and certified after 1 January 1958 with a maximum type certified passenger capacity of 30 or more or a maximum certified payload capacity of 7500 lbs (3402 kg) cargo or more, and
- Large aeroplanes as defined in Decision 2003/11/RM of the Executive Director of the Agency (CS-25) which contains CS-25 amendment 1 or later in their certification basis.

## B) Affected organisations:

- CAMOs involved in the continuing airworthiness management of aeroplanes specified in paragraph A).
- Competent authorities responsible for the oversight as per M.B.704 of aeroplanes specified in paragraph A) and for the oversight of the CAMOs specified in this paragraph B).

## C) Persons from affected organisations who should receive training:

## Phase 1 only:

- The quality manager and quality personnel.
- Personnel of the competent authorities responsible for the oversight as per M.B.704 of aeroplanes specified in paragraph A) and in the oversight of CAMOs specified in paragraph B).

## <u>Phase 1 + Phase 2 + Continuation training:</u>

 Personnel of the CAMO involved in the management and review of the continuing airworthiness of aircraft specified in paragraph A);

## D) General requirements of the training courses

## Phase 1 - Awareness

The training should be carried out before the person starts to work without supervision but not later than 6 months after joining the organisation. The persons who have already attended the Level 1 Familiarisation course in compliance with ED Decision 2007/001/R Appendix XII are already in compliance with Phase 1.

<u>Type:</u> Should be an awareness course with the principal elements of the subject. It may take the form of a training bulletin, or other self-study or informative session. Signature of the reader is required to ensure that the person has passed the training.

<u>Level</u>: It should be a course at the level of familiarisation with the principal elements of the subject.

## Objectives:

The trainee should, after the completion of the training:

1. Be familiar with the basic elements of the fuel tank safety issues.

- 2. Be able to give a simple description of the historical background and the elements requiring a safety consideration, using common words and showing examples of non-conformities.
- 3. Be able to use typical terms.

## **Content:** The course should include:

- a short background showing examples of FTS accidents or incidents,
- the description of concept of fuel tank safety and CDCCL,
- some examples of manufacturers documents showing CDCCL items,
- typical examples of FTS defects,
- some examples of TC holders repair data
- some examples of maintenance instructions for inspection.

## Phase 2 - Detailed training

A flexible period may be allowed by the competent authorities to allow organisations to set the necessary courses and impart the training to the personnel, taking into account the organisation's training schemes/means/practices. This flexible period should not extend beyond 31 December 2010.

The persons who have already attended the Level 2 Detailed training course in compliance with ED Decision 2007/001/R Appendix XII either from a CAMO or from a Part-147 training organisation are already in compliance with Phase 2 with the exception of continuation training.

Staff should have received Phase 2 training by 31 December 2010 or within 12 months of joining the organization, whichever comes later.

<u>Type:</u> Should be a more in-depth internal or external course. It should not take the form of a training bulletin or other self-study. An examination should be required at the end, which should be in the form of a multi choice question, and the pass mark of the examination should be 75%.

Level: It should be a detailed course on the theoretical and practical elements of the subject.

The training may be made either:

- in appropriate facilities containing examples of components, systems and parts affected by Fuel Tank Safety (FTS) issues. The use of films, pictures and practical examples on FTS is recommended; or
- by attending a distance course (e-learning or computer based training) including a film when such film meets the intent of the objectives and content here below. An e-learning or computer based training should meet the following criteria:
  - A continuous evaluation process should ensure the effectiveness of the training and its relevance;
  - Some questions at intermediate steps of the training should be proposed to ensure that the trainee is authorized to move to the next step;
  - The content and results of examinations should be recorded;
  - Access to an instructor in person or at distance should be possible in case support is needed.

A duration of 8 hours for phase 2 is an acceptable compliance.

When the course is provided in a classroom, the instructor should be very familiar with the data in Objectives and Guidelines. To be familiar, an instructor should have attended himself a similar course in a classroom and made additionally some lecture of related subjects.

## Objectives:

The attendant should, after the completion of the training:

- have knowledge of the history of events related to fuel tank safety issues and the theoretical and practical elements of the subject, have an overview of the FAA regulations known as SFAR (Special FAR) 88 of the FAA and of JAA Temporary Guidance Leaflet TGL 47, be able to give a detailed description of the concept of fuel tank system ALI (including Critical Design Configuration Control Limitations CDCCL, and using theoretical fundamentals and specific examples;
- have the capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner;
- have knowledge on how the above items affect the aircraft;
- be able to identify the components or parts or the aircraft subject to FTS from the manufacturer's documentation,
- be able to plan the action or apply a Service Bulletin and an Airworthiness Directive.

Content: Following the guidelines described in paragraph E).

## **Continuation training:**

The organisation should ensure that the continuation training is performed in each two years period. The syllabus of the training programme referred to in the Training policy of the Continuing Airworthiness Management Exposition (CAME) should contain the additional syllabus for this continuation training.

The continuation training may be combined with the phase 2 training in a classroom or at distance.

The continuing training should be updated when new instructions are issued which are related to the material, tools, documentation and manufacturer's or competent authority's directives.

## E) Guidelines for preparing the content of Phase 2 courses.

The following guidelines should be taken into consideration when the phase 2 training programme are being established:

- a) understanding of the background and the concept of fuel tank safety,
- b) how the mechanics can recognise, interpret and handle the improvements in the instructions for continuing airworthiness that have been made or are being made regarding fuel tank systems,
- c) awareness of any hazards especially when working on the fuel system, and when the Flammability Reduction System using nitrogen is installed.

Paragraphs a), b) and c) above should be introduced in the training programme addressing the following issues:

- i) The theoretical background behind the risk of fuel tank safety: the explosions of mixtures of fuel and air, the behaviour of those mixtures in an aviation environment, the effects of temperature and pressure, energy needed for ignition, etc., the 'fire triangle', Explain 2 concepts to prevent explosions:
  - (1) ignition source prevention and
  - (2) flammability reduction,
- ii) The major accidents related to fuel tank systems, the accident investigations and their conclusions,
- iii) SFAR 88 of the FAA and JAA Interim Policy INT POL 25/12: ignition prevention program initiatives and goals, to identify unsafe conditions and to correct them, to systematically improve fuel tank maintenance),
- iv) Explain briefly the concepts that are being used: the results of SFAR 88 of the FAA and JAA INT/POL 25/12: modifications, airworthiness limitations items and CDCCL,
- v) Where relevant information can be found and how to use and interpret this information in the various instructions for continuing airworthiness (aircraft maintenance manuals, component maintenance manual, etc.),
- v) Where relevant information can be found and how to use and interpret this information in the applicable maintenance data as defined in M.A.401(b), [applicable from 18 May 2022]
- vi) Fuel Tank Safety during maintenance: fuel tank entry and exit procedures, clean working environment, what is meant by configuration control, wire separation, bonding of components etc.,
- vii) Flammability reduction systems when installed: reason for their presence, their effects, the hazards of a Flammability Reduction System (FRS) using nitrogen for maintenance, safety precautions in maintenance/working with an FRS,
- viii) Recording maintenance actions, recording measures and results of inspections.

The training should include a representative number of examples of defects and the associated repairs as required by the TC/STC holders maintenance data.

## F) Approval of training

For CAMOs the approval of the initial and continuation training programme and the content of the examination can be achieved by the change of the CAME exposition. The modification of the CAME should be approved as required by M.A.704(b). The necessary changes to the CAME to meet the content of this decision should be made and implemented at the time requested by the competent authority.

## Appendix XIII to AMC M.A.712(f) — Organisational review

ED Decision 2020/002/R

The following text provides relevant information for conducting organisational reviews in accordance with M.A.712 for the particular case of a CAMO working on aircraft subject to Part-M.

Organisational reviews may replace a full quality system in accordance with the provisions of  $\underline{M.A.712(f)}$  and  $\underline{AMC\ M.A.712(f)}$  and as described in the continuing airworthiness management exposition (CAME)

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, privilege to perform airworthiness reviews, etc.), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the CAME:

- a. Identification of the person responsible for the organisational review programme:
  - By default, this person should be the accountable manager, unless he delegates this responsibility to (one of) the  $\underline{M.A.706(c)}$  person(s).
- b. Identification and qualification criteria for the person(s) responsible for performing the organisational reviews:
  - These persons should have a thorough knowledge of the regulations and of the continuing airworthiness management organisation (CAMO) procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the competent authority).
- c. Elaboration of the organisational review programme:
  - Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the CAME should be addressed.
  - A schedule for the accomplishment of the checklist items. Each item should be checked
    at least every 12 months. The organisation may choose to conduct one full review
    annually or to conduct several partial reviews.
- d. Performance of organisational reviews:

Each checklist item should be answered using an appropriate combination of:

- review of records, documentation, etc.
- sample check of aircraft under contract.
- interview of personnel involved.
- review of discrepancies and difficulty internal reports (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, etc.).
- review of complaints filed by customers.
- e. Management of findings and occurrence reports:
  - All findings should be recorded and notified to the affected persons.

- All level 1 findings, in the sense of <u>M.A.716(a)</u>, should be immediately notified to the competent authority and all necessary actions on aircraft in service should be immediately taken.
- All occurrence reports should be reviewed with the aim for continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, unsafe behaviours, etc.), and dismissed alerts that, had they been recognised and appropriately managed before the event, could have resulted in the undesired event being prevented.
- Corrective and preventive actions should be approved by the person responsible for the organisational review programme and implemented within a specified time frame.
- Once the person responsible for the organisational review programme is satisfied that
  the corrective action is effective, closure of the finding should be recorded along with a
  summary of the corrective action.
- The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review programme.

Following is a typical example of a simplified organisational review checklist, to be adapted as necessary to cover the CAME procedures:

#### 1 – Scope of work

- All aircraft under contract are covered in the Form 14.
- The scope of work in the CAME does not disagree with the Form 14.
- No work has been performed outside the scope of the <u>Form 14</u> and the CAME.
- Is it justified to retain in the approved scope of work aircraft types for which the organisation has no longer aircraft under contract?

### 2 – Airworthiness situation of the fleet

Does the continuing airworthiness status (AD, maintenance programme, life limited components, deferred maintenance, ARC validity) show any expired items? If so, are the aircraft grounded?

### 3 – Aircraft maintenance programme

- Check that all revisions to the TC/STC holders Instructions for Continuing Airworthiness, since the last review, have been (or are planned to be) incorporated in the maintenance programme, unless otherwise approved by the Competent Authority.
- Has the maintenance programme been revised to take into account all modifications or repairs impacting the maintenance programme?
- Have all maintenance programme amendments been approved at the right level (competent authority or indirect approval)?
- Does the status of compliance with the maintenance programme reflect the latest approved maintenance programme?
- Has the use of maintenance programme deviations and tolerances been properly managed and approved?

### 4 – Airworthiness Directives (and other mandatory measures issued by the competent authority)

- Have all ADs issued since the last review been incorporated into the AD status?
- Does the AD status correctly reflect the AD content: applicability, compliance date, periodicity...? (sample check on ADs)

### 5 - Modifications/repairs

- Are all modifications/repairs listed in the corresponding status approved in accordance with M.A.304? (sample check on modifications/repairs)
- Have all the modifications/repairs which have been installed since the last review been incorporated in the corresponding status? (sample check from the aircraft/component logbooks)

### 6 – Relations with the owners/operators

- Has a contract (in accordance with <u>Appendix I to Part-M</u>) been signed with each external owner/operator, covering all the aircraft whose airworthiness is managed by the CAMO?
- Have the owners/operators under contract fulfilled their obligations identified in the contract? As appropriate:
  - Are the pre-flight checks correctly performed? (interview of pilots)
  - Are the technical log or equivalent correctly used (record of flight hours/cycles, defects reported by the pilot, identification of what maintenance is next due etc.)?
  - Did flights occur with overdue maintenance or with defects not properly rectified or deferred? (sample check from the aircraft records)
  - Has maintenance been performed without notifying the CAMO (sample check from the aircraft records, interview of the owner/operator)?

### 7 - Personnel

- Check that the current accountable manager and other nominated persons are correctly identified in the approved CAME.
- If the number of personnel has decreased or if the activity has increased, check that the organisation still has sufficient staff.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.
- Check that the staff has been trained, as necessary, to cover changes in:
  - regulations,
  - competent authority publications,
  - the CAME and associated procedures,
  - the approved scope of work,
  - maintenance data (significant ADs, SBs, ICA amendments, etc.).

### 8 - Maintenance contracted

- Sample check of maintenance records:
  - Existence and adequacy of the work order,

- Data received from the maintenance organisation:
  - Valid CRS including any deferred maintenance
  - List of removed and installed equipment and copy of the associated <u>Form 1</u> or equivalent.
- Obtain a copy of the current approval certificate (Form 3) of the maintenance organisations contracted.

### 9 - Technical records and record-keeping

- Have the certificates (<u>Form 1</u> and Conformity certificates) been properly collected and recorded?
- Perform a sample check of technical records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

### 10 – Occurrence reporting procedures

- Check that reporting is properly performed,
- Actions taken and recorded.

### 11 - Airworthiness review



# ANNEX II (PART-145)

## **GENERAL**

## 145.1 General

Regulation (EU) No 1321/2014

For the purpose of this Part, the competent authority shall be:

- 1. for organisations having their principal place of business in a Member State, the authority designated by that Member State, or;
- 2. for organisations having their principal place of business located in a third country, the Agency.

### **SECTION A — TECHNICAL REQUIREMENTS**

## 145.A.10 Scope

Regulation (EU) No 1321/2014

This Section establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft and components.

### **AMC 145.A.10 Scope**

ED Decision 2015/029/R

- 1. Line Maintenance should be understood as any maintenance that is carried out before flight to ensure that the aircraft is fit for the intended flight.
  - (a) Line Maintenance may include:
    - Trouble shooting.
    - Defect rectification.
    - Component replacement with use of external test equipment if required.
       Component replacement may include components such as engines and propellers.
    - Scheduled maintenance and/or checks including visual inspections that will detect obvious unsatisfactory conditions/discrepancies but do not require extensive in depth inspection. It may also include internal structure, systems and powerplant items which are visible through quick opening access panels/doors.
    - Minor repairs and modifications which do not require extensive disassembly and can be accomplished by simple means.
  - (b) For temporary or occasional cases (ADs, SBs) the Quality Manager may accept base maintenance tasks to be performed by a line maintenance organisation provided all requirements are fulfilled as defined by the competent authority.
  - (c) Maintenance tasks falling outside these criteria are considered to be Base Maintenance.
  - (d) Aircraft maintained in accordance with 'progressive' type programmes should be individually assessed in relation to this paragraph. In principle, the decision to allow some 'progressive' checks to be carried out should be determined by the assessment that all tasks within the particular check can be carried out safely to the required standards at the designated line maintenance station.
- 2. Where the organisation uses facilities both inside and outside the Member State such as satellite facilities, sub-contractors, line stations etc., such facilities may be included in the approval without being identified on the approval certificate subject to the maintenance organisation exposition identifying the facilities and containing procedures to control such facilities and the competent authority being satisfied that they form an integral part of the approved maintenance organisation.

### GM 145.A.10 Scope

ED Decision 2020/002/R

This Guidance Material (GM) provides guidance on how the smallest organisations satisfy the intent of Part-145:

- 1. By inference, the smallest maintenance organisation would only be involved in a limited number of light aircraft, or aircraft components, used for commercial air transport. It is therefore a matter of scale; light aircraft do not demand the same level of resources, facilities or complex maintenance procedures as the large organisation.
- 2. It is recognised that a <u>Part-145</u> approval may be required by two quite different types of small organisations, the first being the light aircraft maintenance hangar, the second being the component maintenance workshop, e.g. small piston engines, radio equipment, etc.
- 3. Where only one person is employed (in fact having the certifying function and others), these organisations approved under <a href="Part-145">Part-145</a> may use the alternatives provided in point 3.1 limited to the following:

Class A2 Base and Line maintenance of aeroplanes of 5 700 kg and below (piston engines only).

Class A3 Base and Line maintenance of single-engined helicopters of less than 3 175 kg.

Class A4 Aircraft other than A1, A2 and A3

Class B2 Piston engines with maximum output of less than 450 HP.

Class C Components.

Class D1 Non-destructive Testing.

- 3.1. <a href="145.A.30">145.A.30</a>(b): The minimum requirement is for one full-time person who meets the <a href="Part-66">Part-66</a> requirements for certifying staff and holds the position of 'accountable manager, maintenance engineer and is also certifying staff and, if applicable, airworthiness review staff'. No other person may issue a certificate of release to service and therefore if absent, no maintenance may be released during such absence.
  - 3.1.1. The quality monitoring function of <a href="145.A.65(c">145.A.65(c)</a> may be contracted to an appropriate organisation approved under <a href="Part-145">Part-145</a> or to a person with appropriate technical knowledge and extensive experience of quality audits employed on a part-time basis, with the agreement of the competent authority.
    - Note: Full-time for the purpose of <u>Part-145</u> means not less than 35 hrs per week except during vacation periods.
  - 3.1.2. <a href="145.A.35"><u>145.A.35</u></a>. In the case of an approval based on one person using a subcontracted quality monitoring arrangement, the requirement for a record of certifying staff is satisfied by the submission to and acceptance by the competent authority of the <a href="EASA Form 4">EASA Form 4</a>. With only one person the requirement for a separate record of authorisation is unnecessary because the EASA Form 3 approval schedule defines the authorisation. An appropriate statement, to reflect this situation, should be included in the exposition.
  - 3.1.3. <a href="145.A.65(c">145.A.65(c</a>). It is the responsibility of the contracted quality monitoring organisation or person to make a minimum of 2 visits per 12 months and it is the responsibility of this organisation or person to carry out such monitoring on the basis of 1 pre-announced visit and 1 not announced visit to the organisation.

Annex II (Part-145)
SECTION A — TECHNICAL
REQUIREMENTS

It is the responsibility of the organisation to comply with the findings of the contracted quality monitoring organisation or the person.

CAUTION: it should be understood that if the contracted organisation or the above mentioned person loses or gives up its approval, then the organisation's approval will be suspended.

- 4. Recommended operating procedure for a <u>Part-145</u> approved maintenance organisation based upon up to 10 persons involved in maintenance.
  - 4.1. <a href="145.A.30(b">145.A.30(b</a>): The normal minimum requirement is for the employment on a full-time basis of two persons who meet the competent authorities' requirements for certifying staff, whereby one holds the position of 'maintenance engineer' and the other holds the position of 'quality audit engineer'.

Either person can assume the responsibilities of the accountable manager providing that they can comply in full with the applicable elements of <a href="145.A.30(a">145.A.30(a</a>), but the 'maintenance engineer' is the certifying person to retain the independence of the 'quality audit engineer' to carry out audits. Nothing prevents either engineer from undertaking maintenance tasks providing that the 'maintenance engineer' issues the certificate of release to service. This 'maintenance engineer' may also be nominated as airworthiness review staff to carry out airworthiness reviews and issue the corresponding airworthiness review certificate for aircraft for which Part-ML applies in accordance with <a href="ML.A.903">ML.A.903</a>.

The 'quality audit engineer' should have similar qualifications and status to the 'maintenance engineer' for reasons of credibility, unless he/she has a proven track-record in aircraft quality assurance, in which case some reduction in the extent of maintenance qualifications may be permitted.

In cases where the competent authority agrees that it is not practical for the organisation to nominate a post holder for the quality monitoring function, this function may be contracted in accordance to paragraph 3.1.1.

## 145.A.15 Application

Regulation (EU) No 1321/2014

An application for the issue or change of an approval shall be made to the competent authority in a form and manner established by such authority.

## AMC 145.A.15 Application

ED Decision 2015/029/R

In a form and in a manner established by the competent authority means that the application should be made on an <u>EASA Form 2</u> (refer to <u>Appendix III to AMC to Part-145</u>).

## 145.A.20 Terms of Approval

Regulation (EU) No 1321/2014

The organisation shall specify the scope of work deemed to constitute approval in its exposition (<u>Appendix IV to Annex I (Part-M)</u> contains a table of all classes and ratings).



### AMC 145.A.20 Terms of approval

ED Decision 2015/029/R

The following table identifies the ATA Specification 2200 chapter for the category C component rating. If the maintenance manual (or equivalent document) does not follow the ATA Chapters, the corresponding subjects still apply to the applicable C rating.

CLASS	RATING	ATA CHAPTERS
COMPONENTS OTHER	C1 Air Cond & Press	21
THAN COMPLETE ENGINES OR APUS	C2 Auto Flight	22
	C3 Comms and Nav	23 - 34
	C4 Doors - Hatches	52
	C5 Electrical Power & Lights	24 – 33 - 85
	C6 Equipment	25 - 38 - 44 – 45 - 50
	C7 Engine – APU	49 - 71 - 72 - 73 - 74 - 75 - 76 - 77 - 78 - 79 - 80 - 81 - 82 - 83
	C8 Flight Controls	27 - 55 - 57.40 - 57.50 -57.60 - 57.70
	C9 Fuel	28 - 47
	C10 Helicopters - Rotors	62 - 64 - 66 - 67
	C11 Helicopter - Trans	63 - 65
	C12 Hydraulic Power	29
	C13 Indicating/Recording Systems	31 – 42 - 46
	C14 Landing Gear	32
	C15 Oxygen	35
	C16 Propellers	61
	C17 Pneumatic & Vacuum	36 - 37
	C18 Protection ice/rain/fire	26 - 30
	C19 Windows	56
	C20 Structural	53 - 54 - 57.10 - 57.20 - 57.30
	C21 Water Ballast	41
	C22 Propulsion Augmentation	84

## 145.A.25 Facility requirements

Regulation (EU) No 1321/2014

The organisation shall ensure that:

- (a) Facilities are provided appropriate for all planned work, ensuring in particular, protection from the weather elements. Specialised workshops and bays are segregated as appropriate, to ensure that environmental and work area contamination is unlikely to occur.
  - 1. For base maintenance of aircraft, aircraft hangars are both available and large enough to accommodate aircraft on planned base maintenance;
  - 2. For component maintenance, component workshops are large enough to accommodate the components on planned maintenance.
- (b) Office accommodation is provided for the management of the planned work referred to in point (a), and certifying staff so that they can carry out their designated tasks in a manner that contributes to good aircraft maintenance standards.

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- (c) The working environment including aircraft hangars, component workshops and office accommodation is appropriate for the task carried out and in particular special requirements observed. Unless otherwise dictated by the particular task environment, the working environment must be such that the effectiveness of personnel is not impaired:
  - 1. temperatures must be maintained such that personnel can carry out required tasks without undue discomfort.
  - 2. dust and any other airborne contamination are kept to a minimum and not be permitted to reach a level in the work task area where visible aircraft/component surface contamination is evident. Where dust/other airborne contamination results in visible surface contamination, all susceptible systems are sealed until acceptable conditions are re-established.
  - 3. lighting is such as to ensure each inspection and maintenance task can be carried out in an effective manner.
  - 4. noise shall not distract personnel from carrying out inspection tasks. Where it is impractical to control the noise source, such personnel are provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks.
  - 5. where a particular maintenance task requires the application of specific environmental conditions different to the foregoing, then such conditions are observed. Specific conditions are identified in the maintenance data.
  - 6. the working environment for line maintenance is such that the particular maintenance or inspection task can be carried out without undue distraction. Therefore where the working environment deteriorates to an unacceptable level in respect of temperature, moisture, hail, ice, snow, wind, light, dust/other airborne contamination, the particular maintenance or inspection tasks must be suspended until satisfactory conditions are reestablished.
- (d) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions ensure segregation of serviceable components and material from unserviceable aircraft components, material, equipment and tools. The conditions of storage are in accordance with the manufacturer's instructions to prevent deterioration and damage of stored items. Access to storage facilities is restricted to authorised personnel.

## AMC 145.A.25(a) Facility requirements

ED Decision 2015/029/R

- 1. Where the hangar is not owned by the organisation, it may be necessary to establish proof of tenancy. In addition, sufficiency of hangar space to carry out planned base maintenance should be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the maintenance programme. The aircraft hangar visit plan should be updated on a regular basis.
- 2. Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any twelve month period. Aircraft hangar and component workshop structures should prevent the ingress of rain, hail, ice, snow, wind and dust etc. Aircraft hangar and component workshop floors should be sealed to minimise dust generation.
- 3. For line maintenance of aircraft, hangars are not essential but it is recommended that access to hangar accommodation be demonstrated for usage during inclement weather for minor scheduled work and lengthy defect rectification.

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4. Aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete maintenance records in a proper manner.

### AMC 145.A.25(b) Facility requirements

ED Decision 2015/029/R

It is acceptable to combine any or all of the office accommodation requirements into one office subject to the staff having sufficient room to carry out the assigned tasks.

In addition, as part of the office accommodation, aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete maintenance records in a proper manner.

## AMC 145.A.25(d) Facility requirements

ED Decision 2015/029/R

- Storage facilities for serviceable aircraft components should be clean, well-ventilated and maintained at a constant dry temperature to minimise the effects of condensation. Manufacturer's storage recommendations should be followed for those aircraft components identified in such published recommendations.
- 2. Storage racks should be strong enough to hold aircraft components and provide sufficient support for large aircraft components such that the component is not distorted during storage.
- 3. All aircraft components, wherever practicable, should remain packaged in protective material to minimise damage and corrosion during storage.

### 145.A.30 Personnel requirements

Regulation (EU) No 1321/2014

- (a) The organisation shall appoint an accountable manager who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this Part. The accountable manager shall:
  - 1. ensure that all necessary resources are available to accomplish maintenance in accordance with point 145.A.65(b) to support the organisation approval.
  - 2. establish and promote the safety and quality policy specified in point 145.A.65(a).
  - 3. demonstrate a basic understanding of this <a href="Annex (Part-145">Annex (Part-145)</a>.

Regulation (EU) No 1321/2014

- (b) The organisation shall nominate a person or group of persons, whose responsibilities include ensuring that the organisation complies with this Part. Such person(s) shall ultimately be responsible to the accountable manager.
  - 1. The person or persons nominated shall represent the maintenance management structure of the organisation and be responsible for all functions specified in this Part.
  - 2. The person or persons nominated shall be identified and their credentials submitted in a form and manner established by the competent authority.
  - 3. The person or persons nominated shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft or component maintenance and demonstrate a working knowledge of this Part.



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SECTION A — TECHNICAL

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4. Procedures shall make clear who deputises for any particular person in the case of lengthy absence of the said person.

Regulation (EU) No 1321/2014

(c) The accountable manager under point (a) shall appoint a person with responsibility for monitoring the quality system, including the associated feedback system as required by point <a href="145.A.65(c">145.A.65(c</a>). The appointed person shall have direct access to the accountable manager to ensure that the accountable manager is kept properly informed on quality and compliance matters.

Regulation (EU) No 1321/2014

(d) The organisation shall have a maintenance man-hour plan showing that the organisation has sufficient staff to plan, perform, supervise, inspect and quality monitor the organisation in accordance with the approval. In addition the organisation shall have a procedure to reassess work intended to be carried out when actual staff availability is less than the planned staffing level for any particular work shift or period.

Regulation (EU) 2020/270

(e) The organisation shall establish and control the competence of personnel involved in any maintenance, airworthiness reviews, management and/or quality audits in accordance with a procedure and to a standard agreed by the competent authority. In addition to the necessary expertise related to the job function, competence must include an understanding of the application of human factors and human performance issues appropriate to that person's function in the organisation. 'Human factors' means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration of human performance. 'Human performance' means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

Regulation (EU) 2018/1142

(f) The organisation shall ensure that personnel who carry out or control a continued-airworthiness non-destructive test of aircraft structures or components, or both, are appropriately qualified for the particular non- destructive test in accordance with the European or equivalent standard recognised by the Agency. Personnel who carry out any other specialised task shall be appropriately qualified in accordance with officially recognised standards. By derogation from this point, personnel referred to in point (g), points (h)(1) and (h)(2), qualified in category B1, B3 or L in accordance with Annex III (Part-66), may carry out and/or control colour contrast dye penetrant tests.

Regulation (EU) 2018/1142

(g) Any organisation maintaining aircraft, except where stated otherwise in point (j), shall in the case of aircraft line maintenance, have appropriate aircraft-rated certifying staff qualified as category B1, B2, B2L, B3 and L, as appropriate, in accordance with <a href="Annex III (Part-66">Annex III (Part-66</a>) and point 145.A.35.

In addition such organisations may also use appropriately task-trained certifying staff holding the privileges set out in points <u>66.A.20(a)(1)</u> and <u>66.A.20(a)(3)(ii)</u> and qualified in accordance with <u>Annex III (Part-66)</u> and point <u>145.A.35</u> to carry out minor scheduled line maintenance and simple defect rectification. The availability of such certifying staff shall not replace the need for category B1, B2, B2L, B3 and L certifying staff, as appropriate.

Regulation (EU) 2018/1142

- (h) Any organisation maintaining aircraft, except where stated otherwise in point (j), shall:
  - in the case of base maintenance of complex motor-powered aircraft, have appropriate aircraft-type-rated certifying staff, qualified as category C in accordance with <u>Annex III (Part-66)</u> and point <u>145.A.35</u>. In addition, the organisation shall have sufficient aircraft-type-rated staff qualified as category B1 and B2, as appropriate, in accordance with <u>Annex III (Part-66)</u> and point <u>145.A.35</u> to support the category C certifying staff.
    - (i) Category B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the certificate of release to service.
    - (ii) The organisation shall maintain a register of any such category B1 and B2 support staff
    - (iii) The category C certifying staff shall ensure that compliance with point (i) has been met and that all work required by the customer has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out, with a view to either requiring its accomplishment or agreeing with the operator to defer such work to another specified check or time limit.
  - 2. in the case of base maintenance of aircraft other than complex motor-powered aircraft, have one of the following:
    - (i) appropriate aircraft-rated certifying staff, qualified as category B1, B2, B2L, B3 and L, as appropriate, in accordance with <a href="Annex III">Annex III</a> (Part-66) and point <a href="145.A.35">145.A.35</a>;
    - (ii) appropriate aircraft-rated certifying staff, qualified in category C and assisted by support staff, as set out in point 145.A.35(a)(i).

Regulation (EU) 2018/1142

(i) Component certifying staff shall be qualified in accordance with <a href="Article 5(6)">Article 5(6)</a> and point <a href="145.A.35">145.A.35</a>.

Regulation (EU) 2015/1088

- (j) By derogation to points (g) and (h), in relation to the obligation to comply with Annex III (Part-66), the organisation may use certifying staff qualified in accordance with the following provisions:
  - 1. For organisation facilities located outside the Community territory certifying staff may be qualified in accordance with the national aviation regulations of the State in which the organisation facility is registered subject to the conditions specified in <a href="Appendix IV to this Part">Appendix IV to this Part</a>.
  - 2. For line maintenance carried out at a line station of an organisation which is located outside the Community territory, the certifying staff may be qualified in accordance with the national aviation regulations of the State in which the line station is based, subject to the conditions specified in <a href="Appendix IV to this Part">Appendix IV to this Part</a>.
  - 3. For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the organisation may issue a limited certification authorisation to the aircraft commander and/or the flight engineer on the basis of the flight crew licence held. However, the organisation shall ensure that sufficient practical training has been carried out to ensure that such aircraft commander or flight engineer can accomplish the airworthiness directive to the required standard.

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- 4. In the case of aircraft operating away from a supported location the organisation may issue a limited certification authorisation to the commander and/or the flight engineer on the basis of the flight crew licence held subject to being satisfied that sufficient practical training has been carried out to ensure that the commander or flight engineer can accomplish the specified task to the required standard. The provisions of this point shall be detailed in an exposition procedure.
- 5. In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the organisation contracted to provide maintenance support may issue a one-off certification authorisation:
  - (i) to one of its employees holding equivalent type authorisations on aircraft of similar technology, construction and systems; or
  - (ii) to any person with not less than five years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organisation appropriately approved under this Part at that location and the contracted organisation obtains and holds on file evidence of the experience and the licence of that person.

All such cases as specified in this point must be reported to the competent authority within seven days after issuing such certification authorisation. The organisation issuing the one-off authorisation shall ensure that any such maintenance that could affect flight safety is rechecked by an appropriately approved organisation.

Regulation (EU) 2020/270

- (k) If the organisation performs airworthiness reviews and issues the corresponding airworthiness review certificate in accordance with point ML.A.903 of Annex Vb (Part-ML), it shall have airworthiness review staff qualified and authorised and meeting all of the following requirements:
  - 1. shall hold a certifying staff authorisation for the corresponding aircraft;
  - 2. shall have at least three years of experience as certifying staff;
  - 3. shall be independent from the continuing airworthiness management process of the aircraft being reviewed or shall have overall authority on the continuing airworthiness management process of the complete aircraft being reviewed;
  - 4. shall have acquired knowledge of Subpart C of this Annex (Part-M) or Subpart C of Annex Vb (Part-ML);
  - 5. shall have acquired proven knowledge of the procedures of the maintenance organisation relevant to the airworthiness review and issue of the airworthiness review certificate;
  - 6. shall have been formally accepted by the competent authority after having performed an airworthiness review under the supervision of the competent authority or under the supervision of the organisation's airworthiness review staff in accordance with a procedure approved by the competent authority;
  - 7. shall have performed at least one airworthiness review in the last twelve-month period.

### AMC 145.A.30(a) Personnel requirements

ED Decision 2015/029/R

With regard to the accountable manager, it is normally intended to mean the chief executive officer of the approved maintenance organisation, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be necessarily knowledgeable on technical matters as the maintenance organisation exposition defines the maintenance standards. When the accountable manager is not the chief executive officer the competent authority will need to be assured that such an accountable manager has direct access to chief executive officer and has a sufficiency of 'maintenance funding' allocation.

### AMC 145.A.30(b) Personnel requirements

ED Decision 2015/029/R

- 1. Dependent upon the size of the organisation, the <u>Part-145</u> functions may be subdivided under individual managers or combined in any number of ways.
- 2. The organisation should have, dependent upon the extent of approval, a base maintenance manager, a line maintenance manager, a workshop manager and a quality manager, all of whom should report to the accountable manager except in small <a href="Part-145">Part-145</a> organisation where any one manager may also be the accountable manager, as determined by the competent authority, he/she may also be the line maintenance manager or the workshop manager.
- 3. The base maintenance manager is responsible for ensuring that all maintenance required to be carried out in the hangar, plus any defect rectification carried out during base maintenance, is carried out to the design and quality standards specified in <a href="145.A.65(b">145.A.65(b</a>). The base maintenance manager is also responsible for any corrective action resulting from the quality compliance monitoring of <a href="145.A.65(c">145.A.65(c</a>).
- 4. The line maintenance manager is responsible for ensuring that all maintenance required to be carried out on the line including line defect rectification is carried out to the standards specified in <a href="145.A.65(b">145.A.65(b</a>) and also responsible for any corrective action resulting from the quality compliance monitoring of <a href="145.A.65(c">145.A.65(c</a>).
- 5. The workshop manager is responsible for ensuring that all work on aircraft components is carried out to the standards specified in <a href="145.A.65(b)">145.A.65(b)</a> and also responsible for any corrective action resulting from the quality compliance monitoring of <a href="145.A.65(c)">145.A.65(c)</a>.
- 6. The quality manager's responsibility is specified in <a href="145.A.30(c">145.A.30(c</a>).
- 7. Notwithstanding the example sub-paragraphs 2 6 titles, the organisation may adopt any title for the foregoing managerial positions but should identify to the competent authority the titles and persons chosen to carry out these functions.
- 8. Where an organisation chooses to appoint managers for all or any combination of the identified <a href="Part-145">Part-145</a> functions because of the size of the undertaking, it is necessary that these managers report ultimately through either the base maintenance manager or line maintenance manager or workshop manager or quality manager, as appropriate, to the accountable manager.
  - NOTE: Certifying staff may report to any of the managers specified depending upon which type of control the approved maintenance organisation uses (for example licensed engineers/independent inspection/dual function supervisors etc.) so long as the quality compliance monitoring staff specified in <a href="https://doi.org/10.1001/j.com/licenses/by/45.4.65">45.A.65</a>(c)(1) remain independent.

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### AMC 145.A.30(c) Personnel requirements

ED Decision 2015/029/R

Monitoring the quality system includes requesting remedial action as necessary by the accountable manager and the nominated persons referred to in 145.A.30(b).

## AMC 145.A.30(d) Personnel requirements

ED Decision 2020/002/R

- 1. Has sufficient staff means that the organisation employs or contracts competent staff, as detailed in the man-hour plan, of which at least half the staff that perform maintenance in each workshop, hangar or flight line on any shift should be employed to ensure organisational stability. For the purpose of meeting a specific operational necessity, a temporary increase of the proportion of contracted staff may be permitted to the organisation by the competent authority, in accordance with an approved procedure which should describe the extent, specific duties, and responsibilities for ensuring adequate organisation stability. For the purpose of this subparagraph, employed means the person is directly employed as an individual by the maintenance organisation approved under <a href="Part-145">Part-145</a>, whereas contracted means the person is employed by another organisation and contracted by that organisation to the maintenance organisation approved under <a href="Part-145">Part-145</a>.
- 2. The maintenance man-hour plan should take into account all maintenance activities carried out outside the scope of the <a href="Part-145">Part-145</a> approval.
  - The planned absence (for training, vacations, etc.) should be considered when developing the man-hour plan.
- 3. The maintenance man-hour plan should relate to the anticipated maintenance work load except that when the organisation cannot predict such workload, due to the short term nature of its contracts, then such plan should be based upon the minimum maintenance workload needed for commercial viability. Maintenance work load includes all necessary work such as, but not limited to, planning, maintenance record checks, production of worksheets/cards in paper or electronic form, accomplishment of maintenance, inspection and the completion of maintenance records.
- 4. In the case of aircraft base maintenance, the maintenance man-hour plan should relate to the aircraft hangar visit plan as specified in <u>AMC 145.A.25(a)</u>.
- 5. In the case of aircraft component maintenance, the maintenance man-hour plan should relate to the aircraft component planned maintenance as specified in <a href="145.A.25(a)(2)">145.A.25(a)(2)</a>.
- 6. The quality monitoring compliance function man-hours should be sufficient to meet the requirement of 145.A.65(c) which means taking into account AMC 145.A.65(c)(1). Where quality monitoring staff perform other functions, the time allocated to such functions needs to be taken into account in determining quality monitoring staff numbers.
- 7. The maintenance man-hour plan should be reviewed at least every 3 months and updated when necessary.
- 8. Significant deviation from the maintenance man-hour plan should be reported through the departmental manager to the quality manager and the accountable manager for review. Significant deviation means more than a 25% shortfall in available man-hours during a calendar month for any one of the functions specified in 145.A.30(d).

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### AMC1 145.A.30(e) Personnel requirements

ED Decision 2015/029/R

Competence should be defined as a measurable skill or standard of performance, knowledge and understanding, taking into consideration attitude and behaviour.

The referenced procedure requires amongst others that planners, mechanics, specialised services staff, supervisors, certifying staff and support staff, whether employed or contracted, are assessed for competence before unsupervised work commences and competence is controlled on a continuous basis.

Competence should be assessed by evaluation of:

- on-the-job performance and/or testing of knowledge by appropriately qualified personnel, and
- records for basic, organisational, and/or product type and differences training, and
- experience records.

Validation of the above could include a confirmation check with the organisation(s) that issued such document(s). For that purpose, experience/training may be recorded in a document such as a log book or based on the suggested template in <u>GM3 145.A.30(e)</u>.

As a result of this assessment, an individual's qualification should determine:

- which level of ongoing supervision would be required or whether unsupervised work could be permitted.
- whether there is a need for additional training.

A record of such qualification and competence assessment should be kept.

This should include copies of all documents that attest to qualification, such as the licence and/or any authorisation held, as applicable.

For a proper competence assessment of its personnel, the organisation should consider that:

- 1. In accordance with the job function, adequate initial and recurrent training should be provided and recorded to ensure continued competence so that it is maintained throughout the duration of employment/contract.
- 2. All staff should be able to demonstrate knowledge of and compliance with the maintenance organisation procedures, as applicable to their duties.
- 3. All staff should be able to demonstrate an understanding of human factors and human performance issues in relation with their job function and be trained as per AMC2 145.A.30(e).
- 4. To assist in the assessment of competence and to establish the training needs analysis, job descriptions are recommended for each job function in the organisation. Job descriptions should contain sufficient criteria to enable the required competence assessment.
- 5. Criteria should allow the assessment to establish that, among others (titles might be different in each organisation):
  - Managers are able to properly manage the work output, processes, resources and priorities described in their assigned duties and responsibilities in a safe compliant manner in accordance with regulations and organisation procedures.
  - Planners are able to interpret maintenance requirements into maintenance tasks, and have an understanding that they have no authority to deviate from the maintenance data.

- Supervisors are able to ensure that all required maintenance tasks are carried out and, where not completed or where it is evident that a particular maintenance task cannot be carried out to the maintenance data, then such problems will be reported to the <a href="145.A.30(c">145.A.30(c</a>) person for appropriate action. In addition, for those supervisors, who also carry out maintenance tasks, that they understand such tasks should not be undertaken when incompatible with their management responsibilities.
- Mechanics are able to carry out maintenance tasks to any standard specified in the maintenance data and will notify supervisors of defects or mistakes requiring rectification to re-establish required maintenance standards.
- Specialised services staff are able to carry out specialised maintenance tasks to the standard specified in the maintenance data. They should be able to communicate with supervisors and report accurately when necessary.
- Support staff are able to determine that relevant tasks or inspections have been carried out to the required standard.
- Certifying staff are able to determine when the aircraft or aircraft component is ready to release to service and when it should not be released to service.
- Quality audit staff are able to monitor compliance with <u>Part-145</u> identifying noncompliance in an effective and timely manner so that the organisation may remain in compliance with Part-145.

Competence assessment should be based upon the procedure specified in GM2 145.A.30(e).

## AMC2 145.A.30(e) Personnel requirements

ED Decision 2020/002/R

In respect to the understanding of the application of human factors and human performance issues, all maintenance organisation personnel should have received an initial and continuation human factors training. This should concern to a minimum:

- Post-holders, managers, supervisors;
- Certifying staff, support staff and mechanics;
- Technical support personnel such as planners, engineers, technical record staff;
- Quality control/assurance staff;
- Specialised services staff;
- Human factors staff/human factors trainers;
- Store department staff, purchasing department staff;
- Ground equipment operators.
- 1. Initial human factors training should cover all the topics of the training syllabus specified in GM1 145.A.30(e) either as a dedicated course or else integrated within other training. The syllabus may be adjusted to reflect the particular nature of the organisation. The syllabus may also be adjusted to meet the particular nature of work for each function within the organisation. For example:
  - small organisations not working in shifts may cover in less depth subjects related to teamwork and communication;

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 planners may cover in more depth the scheduling and planning objective of the syllabus and in less depth the objective of developing skills for shift working.

All personnel, including personnel being recruited from any other organisation should receive initial human factors training compliant with the organisation's training standards prior to commencing actual job function, unless their competence assessment justifies that there is no need for such training. Newly directly employed personnel working under direct supervision may receive training within 6 months after joining the maintenance organisation.

- 2. The purpose of human factors continuation training is primarily to ensure that staff remain current in terms of human factors and also to collect feedback on human factors issues. Consideration should be given to the possibility that such training has the involvement of the quality department. There should be a procedure to ensure that feedback is formally passed from the trainers to the quality department to initiate action where necessary.
  - Human factors continuation training should be of an appropriate duration in each two year period in relation to relevant quality audit findings and other internal/external sources of information on human errors in maintenance available to the organisation.
- 3. Human factors training may be conducted by the maintenance organisation itself, or independent trainers, or any training organisations acceptable to the competent authority.
- 4. The human factors training procedures should be specified in the maintenance organisation exposition.

### AMC3 145.A.30(e) Personnel requirements

ED Decision 2015/029/R

Additional training in fuel tank safety as well as associated inspection standards and maintenance procedures should be required for maintenance organisations' technical personnel, especially technical personnel involved in the compliance of CDCCL tasks.

EASA guidance is provided for training to maintenance organisation personnel in <u>Appendix IV to AMC</u> 145.A.30(e) and 145.B.10(3).

## AMC4 145.A.30(e) Personnel requirements

ED Decision 2015/029/R

Competence assessment should include the verification for the need of additional EWIS training when relevant.

EASA guidance is provided for EWIS training programme to maintenance organisation personnel in AMC 20-22.

## **GM1 145.A.30(e)** Personnel requirements

ED Decision 2016/011/R

### TRAINING SYLLABUS FOR INITIAL HUMAN FACTORS TRAINING

The training syllabus below identifies the topics and subtopics to be addressed during the human factors training.

The maintenance organisation may combine, divide, change the order of any subject of the syllabus to suit its own needs, as long as all subjects are covered to a level of detail appropriate to the organisation and its personnel.

Some of the topics may be covered in separate training (health and safety, management, supervisory skills, etc.) in which case duplication of training is not necessary.

Where possible, practical illustrations and examples should be used, especially accident and incident reports.

Topics should be related to existing legislation, where relevant. Topics should be related to existing guidance/advisory material, where relevant (e.g. ICAO HF Digests and Training Manual).

Topics should be related to maintenance engineering where possible; too much unrelated theory should be avoided.

- 1. General/Introduction to human factors
  - 1.1. Need to address human factors
  - 1.2. Statistics
  - 1.3. Incidents
- 2. Safety Culture/Organisational factors
- 3. Human Error
  - 3.1. Error models and theories
  - 3.2. Types of errors in maintenance tasks
  - 3.3. Violations
  - 3.4. Implications of errors
  - 3.5. Avoiding and managing errors
  - 3.6. Human reliability
- 4. Human performance & limitations
  - 4.1. Vision
  - 4.2. Hearing
  - 4.3. Information-processing
  - 4.4. Attention and perception
  - 4.5. Situational awareness
  - 4.6. Memory
  - 4.7. Claustrophobia and physical access
  - 4.8. Motivation
  - 4.9. Fitness/Health
  - 4.10. Stress
  - 4.11. Workload management
  - 4.12. Fatigue
  - 4.13. Alcohol, medication, drugs
  - 4.14. Physical work
  - 4.15. Repetitive tasks/complacency

- 5. Environment
  - 5.1. Peer pressure
  - 5.2. Stressors
  - 5.3. Time pressure and deadlines
  - 5.4. Workload
  - 5.5. Shift Work
  - 5.6. Noise and fumes
  - 5.7. Illumination
  - 5.8. Climate and temperature
  - 5.9. Motion and vibration
  - 5.10. Complex systems
  - 5.11. Hazards in the workplace
  - 5.12. Lack of manpower
  - 5.13. Distractions and interruptions
- 6. Procedures, information, tools and practices
  - 6.1. Visual Inspection
  - 6.2. Work logging and recording
  - 6.3. Procedure practice/mismatch/norms
  - 6.4. Technical documentation access and quality
  - 6.5. Critical maintenance tasks and error-capturing methods (independent inspection, reinspection, etc.)
- 7. Communication
  - 7.1. Shift/Task handover
  - 7.2. Dissemination of information
  - 7.3. Cultural differences
- 8. Teamwork
  - 8.1. Responsibility
  - 8.2. Management, supervision and leadership
  - 8.3. Decision making
- 9. Professionalism and integrity
  - 9.1. Keeping up to date; currency
  - 9.2. Error provoking behaviour
  - 9.3. Assertiveness
- 10. Organisation's HF program
  - 10.1. Reporting errors

- 10.2. Disciplinary policy
- 10.3. Error investigation
- 10.4. Action to address problems
- 10.5. Feedback

## GM2 145.A.30(e) Competence assessment procedure

ED Decision 2020/002/R

The organisation should develop a procedure describing the process of competence assessment of personnel. The procedure should specify:

- persons responsible for this process,
- when the assessment should take place,
- credits from previous assessments,
- validation of qualification records,
- means and methods for the initial assessment,
- means and methods for the continuous control of competence including feedback on personnel performance,
- competences to be observed during the assessment in relation with each job function,
- actions to be taken when assessment is not satisfactory,
- recording of assessment results.

For example, according to the job functions and the scope, size and complexity of the organisation, the assessment may consider the following (the table is not exhaustive):

	Managers	Planners	Supervisor	Certifying staff and support staff	Mechanics	Specialised Service staff	Quality audit staff
Knowledge of applicable officially recognised standards						Х	X
Knowledge of auditing techniques: planning, conducting and reporting							X
Knowledge of human factors, human performance and limitations	X	Х	X	X	X	X	X
Knowledge of logistics processes	X	Χ	Χ				
Knowledge of organisation capabilities, privileges and limitations	X	X	X	X		X	X
Knowledge of Part-M, Part-ML, Part-145 and any other relevant regulations	X	х	Х	х			Х
Knowledge of relevant parts of the maintenance organisation exposition and procedures	X	х	Х	х	х	х	х
Knowledge of occurrence reporting system and understanding of the importance of reporting occurrences, incorrect maintenance data and existing or potential defects		X	Х	Х	Х	X	
Knowledge of safety risks linked to the working environment	X	X	X	X	X	X	X
Knowledge on CDCCL when relevant	X	Χ	Χ	Χ	Χ	Χ	Χ
Knowledge on EWIS when relevant	X	Χ	Χ	Χ	Χ	Χ	Χ
Understanding of professional integrity, behaviour and attitude towards safety	X	Х	Х	Х	Х	Х	Х
Understanding of conditions for ensuring continuing airworthiness of aircraft and components				Х			х
Understanding of his/her own human performance and limitations	X	Х	Х	Х	Х	Х	Х
Understanding of personnel authorisations and limitations	X	Х	Х	X	X	X	X
Understanding critical maintenance task		Χ	Χ	Χ	Χ		Χ
Ability to compile and control completed work cards		Х	X	X			
Ability to consider human performance and limitations.	X	X	X	X			X
Ability to determine required qualifications for task performance		Х	Х	Х			

	Managers	Planners	Supervisor	Certifying staff and support staff	Mechanics	Specialised Service staff	Quality audit staff
Ability to identify and rectify existing and potential unsafe conditions			X	X	X	X	X
Ability to manage third parties involved in maintenance activity		X	Х				
Ability to confirm proper accomplishment of maintenance tasks			X	Х	Х	Х	
Ability to identify and properly plan performance of critical maintenance tasks		х	Х	Х			
Ability to prioritise tasks and report discrepancies		Χ	Χ	Χ	Χ		
Ability to process the work requested by the operator		х	Х	Х			
Ability to promote the safety and quality policy	Χ		Χ				
Ability to properly process removed, uninstalled and rejected parts			X	Х	Х	Х	
Ability to properly record and sign for work accomplished			X	X	Х	Х	
Ability to recognise the acceptability of parts to be installed prior to fitment				X	Х		
Ability to split complex maintenance tasks into clear stages		х					
Ability to understand work orders, work cards and refer to and use applicable maintenance data		х	Х	Х	х	х	х
Ability to use information systems	X	Χ	Χ	Χ	Χ	Χ	Χ
Ability to use, control and be familiar with required tooling and/or equipment			X	Х	Х	Х	
Adequate communication and literacy skills	X	Χ	Χ	Χ	Χ	Χ	Χ
Analytical and proven auditing skills (for example, objectivity, fairness, open-mindedness, determination,)							x
Maintenance error investigation skills							Χ
Resources management and production planning skills	X	Х	X				
Teamwork, decision-making and leadership skills	X		Χ				

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# GM3 145.A.30(e) Template for recording experience/training

ED Decision 2015/029/R

The following template may be used to record the professional experience gained in an organisation and the training received and be considered during the competence assessment of the individual in another organisation.

Aviation Maintenance personnel experience credential						
Name	Given name					
Address						
Telephone	E-mail					
Independent worker	L man					
independent Worker						
Trade Group: airframe engine	electric avionics ot	her (specify)				
Employer's details (when applical	ole)					
Name						
Address	Address					
Telephone						
Maintenance organisation details						
Name						
Address						
Telephone						
Approval Number						
Period of employment F	rom:	To:				
Domain of employment						
Planning	Engineering	Technical records				
Store department	Purchasing					
Mechanics/Technician		_				
Line Maintenance	Line Maintenance					
Servicing	Removal/installation Testing/inspection					
Scheduled Maintenance	Inspection	Repair				
Trouble-shooting	Trouble-shooting	U Overhaul				
	☐ Repair ☐ Re-treatment					
A/C to use	A /C to us a	Reassembly				
A/C type	A/C type	Component type				
Contribution Staff and accompant staff						
Certifying Staff and support staff  Cat. A  Cat. B1	Cat. B2 Cat. C	Component type Other (e.g. NDT)				
		Component Type Specify				
A/CType A/CType A	yc type Ayc type c	Specify Specify				
Certification privileges: Yes / No						
Specialised services Speciality (NDT, composites, welding, etc.):						
Skilled personnel S	peciality (sheet metal, structu	ures, wireman, upholstery, etc.):				
Ground equipment operation						
	ality assurance	] Training				
	,	Total number of check boxes ticked:				
		Total Manuaci of Circum Bones Honour				



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Details of employment	
Tools in a second form the control time and a second secon	
Training received from the contracting organisation Date Nature of training	
Certified by:	
Name:	Date:
Position:	Signature:
Contact details:	
Advisory note: A copy of the present credential maintenance organisation.	I will be kept for at least 3 years from its issuance by the

## AMC 145.A.30(f) Personnel requirements

ED Decision 2021/009/R; ED Decision 2015/029/R

- 1. Continued airworthiness non-destructive testing means such testing specified by the type certificate holder /aircraft or engine or propeller manufacturer in accordance with the maintenance data as specified in <a href="145.A.45">145.A.45</a> for in service aircraft/aircraft components for the purpose of determining the continued fitness of the product to operate safely.
- 2. Appropriately qualified means to Level 1, 2 or 3 as defined by the European Standard EN 4179 dependent upon the non-destructive testing function to be carried out.
- 3. Notwithstanding the fact that Level 3 personnel may be qualified via EN 4179 to establish and authorise methods, techniques, etc., this does not permit such personnel to deviate from methods and techniques published by the type certificate holder/manufacturer in the form of continued airworthiness data, such as in non-destructive test manuals or service bulletins, unless the manual or service bulletin expressly permits such deviation.
- 3. Notwithstanding the fact that Level 3 personnel may be qualified via EN 4179 to establish and authorise methods, techniques, etc., this does not permit such personnel to deviate from



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methods and techniques published in the maintenance data, unless the maintenance data the expressly permits such deviation.

[applicable from 18 May 2022]

- 4. Notwithstanding the general references in EN 4179 to a national aerospace non-destructive testing (NDT) board, all examinations should be conducted by personnel or organisations under the general control of such a board. In the absence of a national aerospace NDT board, the aerospace NDT board of another Member State should be used, as defined by the competent authority.
- 5. Particular non-destructive test means any one or more of the following; Dye penetrant, magnetic particle, eddy current, ultrasonic and radiographic methods including X ray and gamma ray.
- 6. It should be noted that new methods are and will be developed, such as, but not limited to thermography and shearography, which are not specifically addressed by EN 4179. Until the time this agreed standard is established, such methods should be carried out in accordance with the particular equipment manufacturer's recommendations including any training and examination process to ensure competence of the personnel in the process.
- 7. Any maintenance organisation approved under <a href="Part-145">Part-145</a> that carries out NDT should establish NDT specialist qualification procedures detailed in the exposition and accepted by the competent authority.
- 8. Boroscoping and other techniques such as delamination coin tapping are non-destructive inspections rather than non-destructive testing. Notwithstanding such differentiation, the maintenance organisation should establish an exposition procedure accepted by the competent authority to ensure that personnel who carry out and interpret such inspections are properly trained and assessed for their competence in the process. Non-destructive inspections, not being considered as NDT by <a href="Part-145">Part-145</a> are not listed in Appendix II under class rating D1.
- 9. The referenced standards, methods, training and procedures should be specified in the maintenance organisation exposition.
- Any such personnel who intend to carry out and/or control a non-destructive test for which
  they were not qualified prior to the effective date of <u>Part-145</u> should qualify for such nondestructive test in accordance with EN 4179.
- 11. In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

## AMC 145.A.30(g) Personnel requirements

ED Decision 2019/009/R

1. For the purposes of <u>66.A.20(a)(1)</u> and <u>66.A.20(a)(3)(ii)</u> personnel, minor scheduled line maintenance means any minor scheduled inspection/check up to and including a weekly check specified in the aircraft maintenance programme. For aircraft maintenance programmes that do not specify a weekly check, the competent authority will determine the most significant check that is considered equivalent to a weekly check.

- 2. Typical tasks permitted after appropriate task training to be carried out by the 66.A.20(a)(1) and the 66.A.20(a)(3)(ii) personnel for the purpose of these personnel issuing an aircraft certificate of release to service as specified in 145.A.50 as part of minor scheduled line maintenance or simple defect rectification are contained in the following list:
  - (a) Replacement of wheel assemblies.
  - (b) Replacement of wheel brake units.
  - (c) Replacement of emergency equipment.
  - (d) Replacement of ovens, boilers and beverage makers.
  - (e) Replacement of internal and external lights, filaments and flash tubes.
  - (f) Replacement of windscreen wiper blades.
  - (g) Replacement of passenger and cabin crew seats, seat belts and harnesses.
  - (h) Closing of cowlings and refitment of quick access inspection panels.
  - (i) Replacement of toilet system components but excluding gate valves.
  - (j) Simple repairs and replacement of internal compartment doors and placards but excluding doors forming part of a pressure structure.
  - (k) Simple repairs and replacement of overhead storage compartment doors and cabin furnishing items.
  - (I) Replacement of static wicks.
  - (m) Replacement of aircraft main and APU aircraft batteries.
  - (n) Replacement of in-flight entertainment system components other than public address.
  - (o) Routine lubrication and replenishment of all system fluids and gases.
  - (p) The de-activation only of sub-systems and aircraft components as permitted by the operator's minimum equipment list where such de-activation is agreed by the competent authority as a simple task.
  - (q) Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers or the use of special tools.
  - (r) Any other task agreed by the competent authority as a simple task for a particular aircraft type. This may include defect deferment when all the following conditions are met:
    - There is no need for troubleshooting; and
    - The task is in the MEL; and
    - The maintenance action required by the MEL is agreed by the competent authority to be simple.

In the particular case of helicopters, and in addition to the items above, the following:

- (s) removal and installation of Helicopter Emergency Medical Service (HEMS) simple internal medical equipment.
- (t) removal and installation of external cargo provisions (i.e., external hook, mirrors) other than the hoist.
- (u) removal and installation of quick release external cameras and search lights.

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- (v) removal and installation of emergency float bags, not including the bottles.
- (w) removal and installation of external doors fitted with quick release attachments.
- (x) removal and installation of snow pads/skid wear shoes/slump protection pads.

No task which requires troubleshooting should be part of the authorised maintenance actions. Release to service after rectification of deferred defects should be permitted as long as the task is listed above.

- 3. The requirement of having appropriate aircraft-rated certifying staff qualified as category B1, B2, B2L, B3, L, as appropriate, in the case of aircraft line maintenance does not imply that the organisation must have B1, B2, B2L, B3 and L personnel at every line station. The MOE should have a procedure on how to deal with defects requiring those categories of certifying staff.
- 4. The competent authority may accept that in the case of aircraft line maintenance an organisation has only B1, B2, B2L, B3 or L certifying staff, as appropriate, provided that the competent authority is satisfied that the scope of work, as defined in the MOE, does not need the availability of all those categories of certifying staff. Special attention should be taken to clearly limit the scope of scheduled and non-scheduled line maintenance (defect rectification) to only those tasks that can be certified by the available category of certifying staff.

### AMC 145.A.30(h) Personnel requirements

ED Decision 2015/029/R

In accordance with <u>145.A.30(h)</u> and <u>145.A.35</u>, the qualification requirements (basic licence, aircraft ratings, recent experience and continuation training) are identical for certifying staff and for support staff. The only difference is that support staff cannot hold certification privileges when performing this role since during base maintenance the release to service will be issued by category C certifying staff.

Nevertheless, the organisation may use as support staff (for base maintenance) persons who already hold certification privileges for line maintenance.

## AMC 145.A.30(j)(4) Personnel requirements

ED Decision 2015/029/R

- 1. For the issue of a limited certification authorisation:
  - (a) the commander should hold either an air transport pilots license (ATPL), or a commercial pilots license (CPL).
  - (b) The flight engineer should hold either an ATPL, CPL or a national flight engineer licence acceptable to the competent authority on the aircraft type.
- 2. In addition the limited certification authorisation is subject to the maintenance organisation exposition containing procedures to address the personnel requirements of <a href="145.A.30(e)">145.A.30(e)</a> and associated AMC and guidance material. The procedures should be accepted by the competent authority and should include as a minimum:
  - (a) Completion of adequate maintenance airworthiness regulation training.
  - (b) Completion of adequate task training for the specific task on the aircraft. The task training should be of sufficient duration to ensure that the individual has a thorough understanding of the task to be completed and will involve training in the use of associated maintenance data.
  - (c) Completion of the procedural training as specified in <a href="Part-145">Part-145</a>.

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- 2.(i) Typical tasks that may be certified and/or carried out by the commander holding an ATPL or CPL are minor maintenance or simple checks included in the following list:
  - (a) Replacement of internal lights, filaments and flash tubes.
  - (b) Closing of cowlings and refitment of quick access inspection panels.
  - (c) Role changes e.g. stretcher fit, dual controls, FLIR, doors, photographic equipment etc.
  - (d) Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers that are easily accessible but not requiring the use of special tools.
  - (e) Any check/replacement involving simple techniques consistent with this AMC and as agreed by the competent authority.
- 2.(ii) Holders of flight engineer licence acceptable to the competent authority on the aircraft type, may only exercise this limited certification authorisation privilege when performing the duties of a flight engineer.

In addition to paragraph 2(i)(a) to (e) other typical minor maintenance or simple defect rectification tasks that may be carried out are included in the following list:

- (a) Replacement of wheel assemblies.
- (b) Replacement of simple emergency equipment that is easily accessible.
- (c) Replacement of ovens, boilers and beverage makers.
- (d) Replacement of external lights.
- (e) Replacement of passenger and cabin crew seats, seat belts and harnesses.
- (f) Simple replacement of overhead storage compartment doors and cabin furnishing items.
- (g) Replacement of static wicks.
- (h) Replacement of aircraft main and APU aircraft batteries.
- (i) Replacement of in-flight entertainment system components other than public address.
- (j) The de-activation only of sub-systems and aircraft components as permitted by the operator's minimum equipment list where such de-activation is agreed by the competent authority as a simple task.
- (k) Re-setting of tripped circuit breakers under the guidance of maintenance control.
- (I) Any other task agreed by the competent authority as a simple task for a particular aircraft type.
- 3. The authorisation should have a finite life of twelve months subject to satisfactory re-current training on the applicable aircraft type.

## GM 145.A.30(j)(4) Personnel requirements (Flight crew)

ED Decision 2015/029/R

For the holder of a flight engineer licence acceptable to the competent authority appendix 1 to JAR FCL 4.160 Technical Training Course (TTC) details the following subjects:

Familiarisation with basic maintenance procedures, to give additional technical background knowledge, especially with respect to the implication of systems malfunctions, and to train the applicant in maintenance related to the Minimum equipment list (MEL).

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The theoretical knowledge instruction consists of 100 hours and includes the following elements:

- 1. Airframe and systems
- 2. Electrics
- 3. Powerplant and emergency equipment
- 4. Flight instruments and automatic flight control systems

Practical skills training provided by an organisation approved under <a href="Part-145">Part-145</a> is given which includes 35 hours practical experience in the following subjects:

- Fuselage and flight controls,
- Engines,
- Instruments,
- Landing gear and brakes,
- Cabin/cockpit/emergency equipment,
- De-icing/anti-icing related maintenance activities;
- Ground handling and servicing,
- Certificate of completion.

Following successful completion of the technical training, the training organisation carrying out the theoretical knowledge instruction and/or the practical skill training should provide the applicant with a certificate of satisfactory completion of the course, or part thereof.

## AMC 145.A.30(j)(5) Personnel requirements

ED Decision 2015/029/R

- 1. For the purposes of this sub-paragraph 'unforeseen' means that the aircraft grounding could not reasonably have been predicted by the operator because the defect was unexpected due to being part of a hitherto reliable system.
- 2. A one-off authorisation should only be considered for issue by the quality department of the contracted organisation after it has made a reasoned judgement that such a requirement is appropriate under the circumstances and at the same time maintaining the required airworthiness standards. The organisation's quality department will need to assess each situation individually prior to the issuance of a one-off authorisation.
- 3. A one-off authorisation should not be issued where the level of certification required could exceed the knowledge and experience level of the person it is issued to. In all cases, due consideration should be given to the complexity of the work involved and the availability of required tooling and/or test equipment needed to complete the work.

### AMC 145.A.30(j)(5)(i) Personnel requirements

ED Decision 2015/029/R

In those situations where the requirement for a one-off authorisation to issue a CRS for a task on an aircraft type for which certifying staff does not hold a type-rated authorisation has been identified, the following procedure is recommended:

- 1. Flight crew should communicate full details of the defect to the operator's supporting maintenance organisation. If necessary, the supporting maintenance organisation will then request the use of a one-off authorisation from the quality department.
- 2. When issuing a one-off authorisation, the quality department of the organisation should verify that:
  - (a) Full technical details relating to the work required to be carried out have been established and passed on to the certifying staff.
  - (b) The organisation has an approved procedure in place for coordinating and controlling the total maintenance activity undertaken at the location under the authority of the one-off authorisation.
  - (c) The person to whom a one-off authorisation is issued has been provided with all the necessary information and guidance relating to maintenance data and any special technical instructions associated with the specific task undertaken. A detailed step by step worksheet has been defined by the organisation, communicated to the one-off authorisation holder.
  - (d) The person holds authorisations of equivalent level and scope on other aircraft type of similar technology, construction and systems.
- 3. The one-off authorisation holder should sign off the detailed step by step worksheet when completing the work steps. The completed tasks should be verified by visual examination and/or normal system operation upon return to an appropriately approved <a href="Part-145">Part-145</a> maintenance facility.

## AMC 145.A.30(j)(5)(ii) Personnel requirements

D Decision 2015/029/R

This paragraph addresses staff not employed by the maintenance organisation who meet the requirements of 145.A.30(j)(5). In addition to the items listed in AMC 145.A.30(j)(5)(i), paragraph 1, 2(a), (b) and (c) and 3 the quality department of the organisation may issue such one-off authorisation providing full qualification details relating to the proposed certifying personnel are verified by the quality department and made available at the location.



### 145.A.35 Certifying staff and support staff

Regulation (EU) 2018/1142

- (a) In addition to the requirements of points 145.A.30(g) and (h), the organisation shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft or components, or both, to be maintained and of the associated organisation procedures. In the case of certifying staff, this shall be accomplished before the issue or reissue of the certification authorisation.
  - 1. 'Support staff' means those staff holding an aircraft maintenance licence under Annex III (Part-66) in category B1, B2, B2L, B3 and/or L with the appropriate aircraft ratings, working in a base maintenance environment while not necessarily holding certification privileges.
  - 2. 'Relevant aircraft and/or components', means those aircraft or components specified in the particular certification authorisation.
  - 3. 'Certification authorisation' means the authorisation issued to certifying staff by the organisation and which specifies the fact that those staff may sign certificates of release to service within the limitations stated in such authorisation on behalf of the approved organisation.

Regulation (EU) 2018/1142

(b) Except for the cases listed in points <a href="mailto:145.A.30(j">145.A.30(j</a>) and <a href="mailto:66.A.20(a)3(ii)">66.A.20(a)3(ii)</a>, the organisation may only issue a certification authorisation to certifying staff in relation to the basic categories or subcategories and, except for the category A licence, any type rating listed on the aircraft maintenance licence as required by <a href="mailto:Annex III (Part-66">Annex III (Part-66</a>), subject to the licence remaining valid throughout the validity period of the authorisation and to the certifying staff remaining in compliance with <a href="mailto:Annex III (Part-66">Annex III (Part-66</a>).

Regulation (EU) No 1321/2014

- (c) The organisation shall ensure that all certifying staff and support staff are involved in at least 6 months of actual relevant aircraft or component maintenance experience in any consecutive 2-year period.
  - For the purpose of this point 'involved in actual relevant aircraft or component maintenance' means that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorisation and/or has actually carried out maintenance on at least some of the aircraft type or aircraft group systems specified in the particular certification authorisation.

Regulation (EU) No 1321/2014

(d) The organisation shall ensure that all certifying staff and support staff receive sufficient continuation training in each two year period to ensure that such staff have up-to-date knowledge of relevant technology, organisation procedures and human factor issues.

Regulation (EU) No 1321/2014

(e) The organisation shall establish a programme for continuation training for certifying staff and support staff, including a procedure to ensure compliance with the relevant points of <a href="145.A.35">145.A.35</a> as the basis for issuing certification authorisations under this Part to certifying staff, and a procedure to ensure compliance with <a href="Annex III">Annex III</a> (Part-66).

Regulation (EU) No 1321/2014

(f) Except where any of the unforeseen cases of point <a href="145.A.30(j)(5)">145.A.30(j)(5)</a> apply, the organisation shall assess all prospective certifying staff for their competence, qualification and capability to carry



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out their intended certifying duties in accordance with a procedure as specified in the exposition prior to the issue or re-issue of a certification authorisation under this Part.

Regulation (EU) No 1321/2014

(g) When the conditions of points (a), (b), (d), (f) and, where applicable, point (c) have been fulfilled by the certifying staff, the organisation shall issue a certification authorisation that clearly specifies the scope and limits of such authorisation. Continued validity of the certification authorisation is dependent upon continued compliance with points (a), (b), (d), and where applicable, (c).

Regulation (EU) No 1321/2014

(h) The certification authorisation must be in a style that makes its scope clear to the certifying staff and any authorised person who may require to examine the authorisation. Where codes are used to define scope, the organisation shall make a code translation readily available. 'Authorised person' means the officials of the competent authorities, the Agency and the Member State who has responsibility for the oversight of the maintained aircraft or component.

Regulation (EU) No 1321/2014

(i) The person responsible for the quality system shall also remain responsible on behalf of the organisation for issuing certification authorisations to certifying staff. Such person may nominate other persons to actually issue or revoke the certification authorisations in accordance with a procedure as specified in the exposition.

Regulation (EU) No 1321/2014

- (j) The organisation shall maintain a record of all certifying staff and support staff, which shall contain:
  - 1. the details of any aircraft maintenance licence held under Annex III (Part-66); and
  - 2. all relevant training completed; and
  - 3. the scope of the certification authorisations issued, where relevant; and
  - 4. particulars of staff with limited or one-off certification authorisations.

The organisation shall retain the record for at least three years after the staff referred to in this point have ceased employment with the organisation or as soon as the authorisation has been withdrawn. In addition, upon request, the maintenance organisation shall furnish the staff referred to in this point with a copy of their personal record on leaving the organisation.

The staff referred to in this point shall be given access on request to their personal records as detailed above.

Regulation (EU) No 1321/2014

(k) The organisation shall provide certifying staff with a copy of their certification authorisation in either a documented or electronic format.

Regulation (EU) No 1321/2014

(I) Certifying staff shall produce their certification authorisation to any authorised person within 24 hours.

Regulation (EU) No 1321/2014

(m) The minimum age for certifying staff and support staff is 21 years.

Regulation (EU) No 1321/2014

(n) The holder of a category A aircraft maintenance licence may only exercise certification privileges on a specific aircraft type following the satisfactory completion of the relevant category A

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aircraft task training carried out by an organisation appropriately approved in accordance with Annex II (Part-145) or Annex IV (Part-147). This training shall include practical hands on training and theoretical training as appropriate for each task authorised. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment carried out by the organisation.

Regulation (EU) No 1321/2014

- (o) The holder of a category B2 aircraft maintenance licence may only exercise the certification privileges described in point 66.A.20(a)(3)(ii) of Annex III (Part-66) following the satisfactory completion of
  - (i) the relevant category A aircraft task training and
  - (ii) 6 months of documented practical experience covering the scope of the authorisation that will be issued.

The task training shall include practical hands on training and theoretical training as appropriate for each task authorised. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment. Task training and examination/assessment shall be carried out by the maintenance organisation issuing the certifying staff authorisation. The practical experience shall be also obtained within such maintenance organisation.

## AMC 145.A.35(a) Certifying staff and support staff

ED Decision 2015/029/R

- 1. Holding a Part-66 licence with the relevant type/group rating, or a national qualification in the case of components, does not mean by itself that the holder is qualified to be authorised as certifying staff and/or support staff. The organisation is responsible to assess the competence of the holder for the scope of maintenance to be authorised.
- 2. The sentence 'the organisation shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organisation procedures' means that the person has received training and has been successfully assessed on:
  - the type of aircraft or component;
  - the differences on:
    - the particular model/variant;
    - the particular configuration.

The organisation should specifically ensure that the individual competencies have been established with regard to:

- relevant knowledge, skills and experience in the product type and configuration to be maintained, taking into account the differences between the generic aircraft type rating training that the person received and the specific configuration of the aircraft to be maintained.
- appropriate attitude towards safety and observance of procedures.
- knowledge of the associated organisation and operator procedures (i.e. handling and identification of components, MEL use, Technical Log use, independent checks, etc.).

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- 3. Some special maintenance tasks may require additional specific training and experience, including but not limited to:
  - in-depth troubleshooting;
  - very specific adjustment or test procedures;
  - rigging;
  - engine run-up, starting and operating the engines, checking engine performance characteristics, normal and emergency engine operation, associated safety precautions and procedures;
  - extensive structural/system inspection and repair;
  - other specialised maintenance required by the maintenance programme.

For engine run-up training, simulators and/or real aircraft should be used.

- 4. The satisfactory assessment of the competence should be conducted in accordance with a procedure approved by the competent authority (item 3.4 of the MOE, as described in <u>AMC</u> 145.A.70(a)).
- 5. The organisation should hold copies of all documents that attest the competence and recent experience for the period described in <a href="mailto:145.A.35(j">145.A.35(j)</a>.

Additional information is provided in AMC 66.A.20(b)3.

# AMC 145.A.35(b) Certifying staff and support staff

ED Decision 2015/029/R

The organisation issues the certification authorisation when satisfied that compliance has been established with the appropriate paragraphs of <u>Part-145</u> and <u>Part-66</u>. In granting the certification authorisation the maintenance organisation approved under Part-145 needs to be satisfied that the person holds a valid <u>Part-66</u> aircraft maintenance licence and may need to confirm such fact with the competent authority of the Member State that issued the licence.

## AMC 145.A.35(c) Certifying staff and support staff

ED Decision 2015/029/R

For the interpretation of '6 months of actual relevant aircraft maintenance experience in any consecutive 2-year period', the provisions of AMC 66.A.20(b)2 are applicable.

## AMC 145.A.35(d) Certifying staff and support staff

ED Decision 2015/029/R

- Continuation training is a two way process to ensure that certifying staff remain current in terms
  of procedures, human factors and technical knowledge and that the organisation receives
  feedback on the adequacy of its procedures and maintenance instructions. Due to the
  interactive nature of this training, consideration should be given to the possibility that such
  training has the involvement of the quality department to ensure that feedback is actioned.
  Alternatively, there should be a procedure to ensure that feedback is formally passed from the
  training department to the quality department to initiate action.
- 2. Continuation training should cover changes in relevant requirements such as <u>Part-145</u>, changes in organisation procedures and the modification standard of the products being maintained plus

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human factor issues identified from any internal or external analysis of incidents. It should also address instances where staff failed to follow procedures and the reasons why particular procedures are not always followed. In many cases the continuation training will reinforce the need to follow procedures and ensure that incomplete or incorrect procedures are identified to the company in order that they can be corrected. This does not preclude the possible need to carry out a quality audit of such procedures.

- 3. Continuation training should be of sufficient duration in each 2 year period to meet the intent of <u>145.A.35(d)</u> and may be split into a number of separate elements. <u>145.A.35(d)</u> requires such training to keep certifying staff updated in terms of relevant technology, procedures and human factors issues which means it is one part of ensuring quality. Therefore sufficient duration should be related to relevant quality audit findings and other internal / external sources of information available to the organisation on human errors in maintenance. This means that in the case of an organisation that maintains aircraft with few relevant quality audit findings, continuation training could be limited to days rather than weeks, whereas a similar organisation with a number of relevant quality audit findings, such training may take several weeks. For an organisation that maintains aircraft components, the duration of continuation training would follow the same philosophy but should be scaled down to reflect the more limited nature of the activity. For example certifying staff who release hydraulic pumps may only require a few hours of continuation training whereas those who release turbine engine may only require a few days of such training. The content of continuation training should be related to relevant quality audit findings and it is recommended that such training is reviewed at least once in every 24 month period.
- 4. The method of training is intended to be a flexible process and could, for example, include a Part-147 continuation training course, aeronautical college courses, internal short duration courses, seminars, etc. The elements, general content and length of such training should be specified in the maintenance organisation exposition unless such training is undertaken by an organisation approved under Part-147 when such details may be specified under the approval and cross referenced in the maintenance organisation exposition.

## AMC 145.A.35(e) Certifying staff and support staff

ED Decision 2015/029/R

The programme for continuation training should list all certifying staff and support staff and when training will take place, the elements of such training and an indication that it was carried out reasonably on time as planned. Such information should subsequently be transferred to the certifying staff and support staff record as required by 145.A.35(j).

# AMC 145.A.35(f) Certifying staff and support staff

ED Decision 2015/029/R

As stated in  $\underline{145.A.35(f)}$ , except where any of the unforeseen cases of  $\underline{145.A.30(j)(5)}$  applies, all prospective certifying staff and support staff should be assessed for competence related to their intended duties in accordance with AMCs 1, 2, 3 and 4 to  $\underline{145.A.30(e)}$ , as applicable.

# AMC 145.A.35(j) Certifying staff and support staff

D Decision 2015/029/R

1. The following minimum information as applicable should be kept on record in respect of each certifying staff and support staff:

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- (a) Name
- (b) Date of Birth
- (c) Basic Training
- (d) Type Training
- (e) Continuation Training
- (f) Experience
- (g) Qualifications relevant to the authorisation
- (h) Scope of the authorisation
- (i) Date of first issue of the authorisation
- (j) If appropriate expiry date of the authorisation
- (k) Identification Number of the authorisation
- 2. The record may be kept in any format but should be controlled by the organisation's quality department. This does not mean that the quality department should run the record system.
- 3. Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.
- 4. The competent authority is an authorised person when investigating the records system for initial and continued approval or when the competent authority has cause to doubt the competence of a particular person.

# AMC 145.A.35(n) Certifying staff and support staff

ED Decision 2015/029/R

- 1. It is the responsibility of the <u>Part-145</u> organisation issuing the category A certifying staff authorisation to ensure that the task training received by this person covers all the tasks to be authorised. This is particularly important in those cases where the task training has been provided by a <u>Part-147</u> organisation or by a Part-145 organisation different from the one issuing the authorisation.
- 2. 'Appropriately approved in accordance with <u>Annex IV (Part-147)</u>' means an organisation holding an approval to provide category A task training for the corresponding aircraft type.
- 3. 'Appropriately approved in accordance with <u>Annex II (Part-145)</u>' means an organisation holding a maintenance organisation approval for the corresponding aircraft type.

# AMC 145.A.35(o) Certifying staff and support staff

ED Decision 2015/029/R

- 1. The privilege for a B2 licence holder to release minor scheduled line maintenance and simple defect rectification in accordance with 66.A.20(a)(3)(ii) can only be granted by the Part-145 approved organisation where the licence holder is employed/contracted after meeting all the requirements specified in 145.A.35(o). This privilege cannot be transferred to another Part-145 approved organisation.
- 2. When a B2 licence holder already holds a certifying staff authorisation containing minor scheduled line maintenance and simple defect rectification for a particular aircraft type, new

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tasks relevant to category A can be added to that type without requiring another 6 months of experience. However, task training (theoretical plus practical hands-on) and examination/assessment for these additional tasks is still required.

- 3. When the certifying staff authorisation intends to cover several aircraft types, the experience may be combined within a single 6-month period.
- 4. For the addition of new types to the certifying staff authorisation, another 6 months should be required unless the aircraft is considered similar per AMC 66.A.20(b)2 to the one already held.
- 5. The term '6 months of experience' may include full-time employment or part-time employment. The important aspect is that the person has been involved during a period of 6 months (not necessarily every day) in those tasks which are going to be part of the authorisation.

## 145.A.36 Records of airworthiness review staff

Regulation (EU) 2015/1088

The organisation shall record all details concerning the airworthiness review staff and maintain a current list of all the airworthiness review staff together with their scope of approval as part of the organisation's exposition pursuant to point 145.A.70(a)6.

The organisation shall retain the record for at least three years after the staff referred to in this point have ceased employment (or engagement as a contractor or volunteer) with the organisation or as soon as the authorisation has been withdrawn. In addition, upon request, the maintenance organisation shall provide the staff referred to in this point with a copy of their personal record on leaving the organisation.

The staff referred to in this point shall be given access on request to their personal records.

## AMC 145.A.36 Records of airworthiness review staff

ED Decision 2020/002/R

The following minimum information, as applicable, should be kept on record in respect of each airworthiness review staff:

- (a) name;
- (b) date of birth;
- (c) certifying staff authorisation;
- (d) experience as certifying staff on aircraft covered by Part-ML;
- (e) qualifications relevant to the approval (knowledge of relevant parts of Part-ML and knowledge of the relevant airworthiness review procedures);
- (f) scope of the airworthiness review authorisation and personal authorisation reference;
- (g) date of the first issue of the airworthiness review authorisation; and
- (h) if appropriate, expiry date of the airworthiness review authorisation.

# 145.A.40 Equipment and tools

Regulation (EU) 2018/1142

- (a) The organisation shall have available and use the necessary equipment and tools to perform the approved scope of work.
  - (i) Where the manufacturer specifies a particular tool or equipment, the organisation shall use that tool or equipment, unless the use of alternative tooling or equipment is agreed by the competent authority via procedures specified in the exposition.
  - (ii) Equipment and tools must be permanently available, except in the case of any tool or equipment that is so infrequently used that its permanent availability is not necessary. Such cases shall be detailed in an exposition procedure.
  - (iii) An organisation approved for base maintenance shall have sufficient aircraft access equipment and inspection platforms/docking as required for the proper inspection of the aircraft.
- (b) The organisation shall ensure that all tools, equipment and particularly test equipment, as appropriate, are controlled and calibrated according to an officially recognised standard at a frequency to ensure serviceability and accuracy. Records of such calibrations and traceability to the standard used shall be kept by the organisation.

# AMC 145.A.40(a) Equipment and tools

ED Decision 2019/009/R

Once the applicant for approval has determined the intended scope of work for consideration by the competent authority, it will be necessary to show that all tools and equipment as specified in the maintenance data can be made available when needed. All such tools and equipment that require to be controlled in terms of servicing or calibration by virtue of being necessary to measure specified dimensions and torque figures, etc., should be clearly identified and listed in a control register including any personal tools and equipment that the organisation agrees can be used.

# AMC 145.A.40(b) Equipment and tools

ED Decision 2019/009/R

- The control of these tools and equipment requires that the organisation has a procedure to inspect/service and, where appropriate, calibrate such items on a regular basis and indicate to users that the item is within any inspection or service or calibration time-limit. A clear system of labelling all tooling, equipment and test equipment is therefore necessary giving information on when the next inspection or service or calibration is due and if the item is unserviceable for any other reason where it may not be obvious. A register should be maintained for all precision tooling and equipment together with a record of calibrations and standards used.
- 2. Inspection, service or calibration on a regular basis should be in accordance with the equipment manufacturers' instructions except where the organisation can show by results that a different time period is appropriate in a particular case.
- 3. In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.



## 145.A.42 Components

Regulation (EU) 2019/1383; Regulation (EU) 2021/700

- (a) Classification of components. All components shall be classified into the following categories:
  - (i) Components which are in a satisfactory condition, released on an <u>EASA Form 1</u> or equivalent and marked in accordance with Subpart Q of the Annex I (Part-21) to Regulation (EU) No 748/2012, unless otherwise specified in Annex I (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145).
  - (i) Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Subpart Q of Annex I (Part 21) to Regulation (EU) No 748/2012, unless otherwise specified in point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012, in point M.A.502 of Annex I (Part-M), in point ML.A.502 of Annex III (Part-ML), or in this Annex (Part-145).

[applicable from 18 May 2022]

- (ii) Unserviceable components which shall be maintained in accordance with this Regulation.
- (iii) Components categorised as unsalvageable because they have reached their mandatory life limitation or contain a non-repairable defect.
- (iv) Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the maintenance data and accompanied by evidence of conformity traceable to the applicable standard.
- (v) Material, both raw and consumable, used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All material shall be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement as well as the manufacturing and supplier source.
- (b) Components, standard parts and materials for installation
  - (i) The organisation shall establish procedures for the acceptance of components, standard parts and materials for installation to ensure that components, standard parts and materials are in satisfactory condition and meet the applicable requirements of point (a).
  - (ii) The organisation shall establish procedures to ensure that components, standard parts and materials shall only be installed on an aircraft or a component when they are in satisfactory condition, meet the applicable requirements of point (a) and the applicable maintenance data specifies the particular component, standard part or material.
  - (iii) The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities, provided procedures are identified in the exposition.
  - (iv) Components referred to in point 21.A.307(c) of the Annex I (Part-21) to Regulation (EU) No 748/2012 shall only be installed if considered eligible for installation by the aircraft owner on its own aircraft.
  - (iv) Components which are referred to in point (b)(2) of point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012 shall only be installed if considered eligible for installation by the aircraft owner on their own aircraft.

[applicable from 18 May 2022]

(c) Segregation of components

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- (i) Unserviceable and unsalvageable components shall be segregated from serviceable components, standards parts and materials.
- (ii) Unsalvageable components shall not be permitted to re-enter the component supply system, unless mandatory life limitation have been extended or a repair solution has been approved in accordance with Regulation (EU) No 748/2012.

# AMC1 145.A.42(a)(i) Components

ED Decision 2019/009/R

#### **EASA FORM 1 OR EQUIVALENT**

A document equivalent to an <u>EASA Form 1</u> may be:

- (a) a release document issued by an organisation under the terms of a bilateral agreement signed by the European Union;
- (b) a release document issued by an organisation approved under the terms of a JAA bilateral agreement until superseded by the corresponding agreement signed by the European Union;
- (c) a JAA Form One issued prior to 28 November 2004 by a JAR 145 organisation approved by a JAA Full Member State;
- (d) in the case of new aircraft components that were released from manufacturing prior to the Part 21 compliance date, the component should be accompanied by a JAA Form One issued by a JAR 21 organisation approved by a JAA Full Member State and within the JAA mutual recognition system;
- (e) a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations.
- (f) a 'declaration of maintenance accomplished' issued by the person or organisation that performed the maintenance, as specified in point M.A.502(e) or in point ML.A.502(c). [applicable from 18 May 2022]

# GM1 145.A.42(a)(i) Components

ED Decision 2021/009/R

Point (b) of 21.A.307 specifies the new components that do not need an EASA Form 1 or equivalent to be eligible for installation. Point (c) of 21.A.307 specifies the conditions for the document accompanying the component.

[applicable from 18 May 2022]

# AMC1 145.A.42(a)(ii) Components

ED Decision 2020/002/R

## **UNSERVICEABLE COMPONENTS**

(a) The organisation should ensure the proper identification of any unserviceable components. The unserviceable status of the component should be clearly declared on a tag together with the component identification data and any information that is useful to define actions that are necessary to be taken. Such information should state, as applicable, in-service times, maintenance status, preservation status, failures, defects or malfunctions reported or detected, exposure to adverse environmental conditions, and whether the component is installed on an

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aircraft that was involved in an accident or incident. Means should be provided to prevent unintentional separation of this tag from the component.

- (b) Unserviceable components should typically undergo maintenance due to:
  - (1) expiry of the service life limit as defined in the aircraft maintenance programme;
  - (2) non-compliance with the applicable airworthiness directives and other continuing airworthiness requirements mandated by the Agency;
  - (3) absence of the necessary information to determine the airworthiness status or eligibility for installation;
  - (4) evidence of defects or malfunctions; or
  - (5) being installed on an aircraft that was involved in an incident or accident likely to affect the component's serviceability.

## AMC1 145.A.42(a)(iii) Components

ED Decision 2020/002/R

#### **UNSALVAGEABLE COMPONENTS**

The following types of components should typically be classified as unsalvageable:

- (a) components with non-repairable defects, whether visible or not to the naked eye;
- (b) components that do not meet design specifications, and cannot be brought into conformity with such specifications;
- (c) components subjected to unacceptable modification or rework that is irreversible;
- (d) parts with mandatory life limitations that have reached or exceeded these limitations, or have missing or incomplete records;
- (e) components whose airworthy condition cannot be restored due to exposure to extreme forces, heat or adverse environmental conditions;
- (f) components for which conformity with an applicable airworthiness directive cannot be accomplished;
- (g) components for which maintenance records and/or traceability to the manufacturer cannot be retrieved.

# AMC1 145.A.42(a)(iv) Components

ED Decision 2019/009/R

#### **STANDARD PARTS**

(a) Standard parts are parts that are manufactured in complete compliance with an established industry, Agency, competent authority or other government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all the information that is necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications, etc.

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- (b) To designate a part as a standard part, the TC holder may issue a standard parts manual accepted by the competent authority of the original TC holder or may make reference in the parts catalogue to the specification to be met by the standard part. Documentation that accompanies standard parts should clearly relate to the particular parts and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions, such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.
- (c) An EASA Form 1 or equivalent is not normally issued and, therefore, none should be expected.

# AMC2 145.A.42(a)(iv) Components

ED Decision 2019/009/R

#### **STANDARD PARTS**

For sailplanes and powered sailplanes, non-required instruments and/or equipment that are certified under the provision of CS 22.1301(b), if those instruments or equipment, when installed, functioning, functioning improperly or not functioning at all, do not in themselves, or by their effect upon the sailplane and its operation, constitute a safety hazard.

'Required' in the term 'non-required', as used above, means required by the applicable airworthiness code (CS 22.1303, 22.1305 and 22.1307) or required by the relevant regulations for air operations and the applicable Rules of the Air or as required by air traffic management (e.g. a transponder in certain controlled airspace). Examples of non-required equipment which can be considered to be standard parts may be electrical variometers, bank/slip indicators ball-type, total energy probes, capacity glide bottles (for variometers), final calculators, navigation computers, logger/barograph/turnpoint camera, bug-wipers and anti-collision systems. Equipment which must be approved in accordance with the airworthiness code shall comply with the applicable ETSO or equivalent and it is not considered to be a standard part (e.g. oxygen equipment).

# AMC1 145.A.42(a)(v) Components

ED Decision 2019/009/R

## MATERIAL

- (a) Consumable material is any material which is only used once, such as lubricants, cements, compounds, paints, chemical dyes and sealants, etc.
- (b) Raw material is any material that requires further work to make it into a component part of the aircraft, such as metal, plastic, wood, fabric, etc.
- (c) Material both raw and consumable should only be accepted when satisfied that it is to the required specification. To be satisfied, the material and/or its packaging should be marked with the applicable specification and, where appropriate, the batch number.
- (d) Documentation that accompanies all materials should clearly relate to the particular material and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions, such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.
- (e) An <u>EASA Form 1</u> or equivalent should not be issued for such materials and, therefore, none should be expected. The material specification is normally identified in the (S)TC holder's data except in the case where the Agency or the competent authority has agreed otherwise.

## GM1 145.A.42(b) Components

ED Decision 2020/002/R

Used components maintained by a CAO appropriately approved for component maintenance and released on an EASA Form 1 cannot be installed on complex motor-powered aircraft or aircraft used by an air carrier licensed in accordance with Regulation (EC) No 1008/2008.

## AMC1 145.A.42(b)(i) Components

ED Decision 2019/009/R

#### **ACCEPTANCE OF COMPONENTS FOR INSTALLATION**

- (a) The procedures for the acceptance of components, standard parts and materials should have the objective of ensuring that the components, standard parts and materials are in satisfactory condition and meet the organisation's requirements. These procedures should be based upon incoming inspections which include:
  - (1) physical inspection of the components, standard parts and materials;
  - (2) review of the accompanying documentation and data, which should be acceptable in accordance with <a href="145.A.42(a)">145.A.42(a)</a>.
- (b) For the acceptance of components, standard parts and materials from suppliers, the above procedures should include supplier evaluation procedures.

## GM1 145.A.42(b)(i) Components

ED Decision 2019/009/R

#### **INCOMING PHYSICAL INSPECTION**

- (a) To ensure that components, standard parts and materials are in satisfactory condition, the organisation should perform incoming physical inspections.
- (b) The incoming physical inspection should be performed before the component is installed on the aircraft.
- (c) The following list, although not exhaustive, contains typical checks to be performed:
  - (1) verify the general condition of the components and their packaging in relation to damages that could affect their integrity;
  - (2) verify that the shelf life of the component has not expired;
  - (3) verify that items are received in the appropriate package in respect of the type of the component: e.g. correct ATA 300 or electrostatic sensitive devices packaging, when necessary;
  - (4) verify that the component has all plugs and caps appropriately installed to prevent damage or internal contamination. Care should be taken when tape is used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.
- (d) Items (fasteners, etc.) purchased in batches should be supplied in a package. The packaging should state the applicable specification/standard, part number, batch number, and the quantity of the items. The documentation that accompanies the material should contain the applicable specification/standard, part number, batch number, supplied quantity, and the

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manufacturing sources. If the material is acquired from different batches, acceptance documentation for each batch should be provided.

## GM2 145.A.42(b)(i) Components

ED Decision 2019/009/R

#### **EXAMPLES OF SUPPLIERS**

A supplier could be any source that provides components, standard parts or materials to be used for maintenance. Possible sources could be: Part-145 organisations, Part 21 Subpart G organisations, operators, stockist, distributors, brokers, aircraft owners/lessees, etc.

## GM3 145.A.42(b)(i) Components

ED Decision 2019/009/R

#### **SUPPLIER EVALUATION**

- (a) The following elements should be considered for the initial and recurrent evaluation of a supplier's quality system to ensure that the component and/or material is supplied in satisfactory condition:
  - (1) availability of appropriate up-to-date regulations, specifications (such as component handling/storage data) and standards;
  - (2) standards and procedures for the training of personnel and competency assessment;
  - (3) procedures for shelf-life control;
  - (4) procedures for handling of electrostatic sensitive devices;
  - (5) procedures for identifying the source from which components and materials were received;
  - (6) purchasing procedures that identify documentation to accompany components and materials for subsequent use by approved Part-145 maintenance organisations;
  - (7) procedures for incoming inspection of components and materials;
  - (8) procedures for control of measuring equipment that provide for appropriate storage, usage, and for calibration when such equipment is required;
  - (9) procedures to ensure appropriate storage conditions for components and materials that are adequate to protect the components and materials from damage and/or deterioration. Such procedures should comply with the manufacturers' recommendations and relevant standards;
  - (10) procedures for adequate packing and shipping of components and materials to protect them from damage and deterioration, including procedures for proper shipping of dangerous goods (e.g. ICAO and ATA specifications);
  - (11) procedures for detecting and reporting of suspected unapproved components;
  - (12) procedures for handling unsalvageable components in accordance with applicable regulations and standards;
  - (13) procedures for batch splitting or redistribution of lots and handling of the related documents;

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- (14) procedures for notifying purchasers of any components that have been shipped and have later been identified as not conforming to the applicable technical data or standard;
- (15) procedures for recall control to ensure that components and materials shipped can be traced and recalled if necessary;
- (16) procedures for monitoring the effectiveness of the quality system.
- (b) Suppliers which are certified to officially recognised standards that have a quality system that includes the elements specified in (a) may be acceptable; such standards include:
  - (1) EN/AS9120 and listed in the OASIS database;
  - (2) ASA-100;
  - (3) EASO 2012;
  - (4) FAA AC 00-56.

The use of such suppliers does not exempt the organisation from its obligations under <u>145.A.42</u> to ensure that supplied components and materials are in satisfactory condition and meet the applicable criteria of 145.A.42.

(c) Supplier evaluation may depend on different factors, such as the type of component, whether or not the supplier is the manufacturer of the component, the TC holder or a maintenance organisation, or even specific circumstances such as aircraft on ground. This evaluation may be limited to a questionnaire from the Part-145 organisation to its suppliers, a desktop evaluation of the supplier's procedures or an on-site audit, if deemed necessary.

## GM1 145.A.42(b)(ii) Components

ED Decision 2021/009/R; ED Decision 2019/009/R

#### INSTALLATION OF COMPONENTS

Components, standard parts and materials should only be installed when they are specified in the applicable maintenance data. This could include parts catalogue (IPC), service bulletins (SBs), aircraft maintenance manual (AMM), component maintenance manual (CMM) etc. So, the installation of a component, standard part or material can only be done after checking the applicable maintenance data.

This check should ensure that the part number, modification status, limitations, etc., of the component, standard part or material are the ones specified in the applicable maintenance data of the particular aircraft or component (i.e. IPC, SB, AMM, CMM, etc.) where the component, standard part or material is going to be installed. The organisation should establish procedures to ensure that this check is performed before installation.

Components, standard parts and materials should only be installed when they are specified in the applicable maintenance data as specified in 145.A.45(b). So, the installation of a component, standard part or material can only be done after checking the applicable maintenance data.

This check should ensure that the part number, modification status, limitations, etc., of the component, standard part or material are the ones specified in the applicable maintenance data of the particular aircraft or component where the component, standard part or material is going to be installed. The organisation should establish procedures to ensure that this check is performed before installation.

[applicable from 18 May 2022]

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SECTION A — TECHNICAL

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## AMC1 145.A.42(b)(iii) Components

ED Decision 2019/009/R

#### **FABRICATION OF PARTS FOR INSTALLATION**

- (a) The agreement of the competent authority on the fabrication of parts by the approved maintenance organisation should be formalised through the approval of a detailed procedure in the Maintenance Organisation Exposition (MOE). This AMC contains principles and conditions to be taken into account for the preparation of an acceptable procedure.
- (b) Fabrication, inspection, assembly and test should be clearly within the technical and procedural capability of the organisation.
- (c) All necessary data to fabricate the part should be approved either by the Agency or the type certificate (TC) holder, or Part 21 design organisation approval holder, or supplemental type certificate (STC) holder.
- (d) Items that are fabricated by an organisation approved under Part-145 may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components, performing work at its own facilities. The permission to fabricate does not constitute approval for manufacture, or to supply externally, and the parts do not qualify for <a href="EASA Form 1">EASA Form 1</a> certification. This prohibition also applies to the bulk transfer of surplus inventory, in that locally fabricated parts are physically segregated and excluded from any delivery certification.
- (e) Fabrication of parts, modification kits, etc., for onward supply and/or sale may not be conducted by an organisation that is approved under Part-145.
- (f) The data specified in (c) may include repair procedures that involve the fabrication of parts. Where the data on such parts is sufficient to facilitate fabrication, the parts may be fabricated by an organisation that is approved under Part-145. Care should be taken to ensure that the data include details of part numbering, dimensions, materials, processes, and any special manufacturing techniques, special raw material specification and/or incoming inspection requirement, and that the approved organisation has the necessary capability to fabricate those parts. That capability should be defined by way of exposition content. Where special processes or inspection procedures are defined in the approved data which are not available at the organisation, the organisation cannot fabricate the part unless the TC/STC holder gives an approved alternative.
- (g) Examples of fabrication within the scope of a Part-145 approval may include but are not limited to the following:
  - fabrication of bushes, sleeves and shims;
  - (2) fabrication of secondary structural elements and skin panels;
  - (3) fabrication of control cables;
  - (4) fabrication of flexible and rigid pipes;
  - (5) fabrication of electrical cable looms and assemblies;
  - (6) formed or machined sheet metal panels for repairs.

All the above-mentioned fabricated parts should be in accordance with the data provided in the overhaul or repair manuals, modification schemes and service bulletins, drawings, or should be otherwise approved by the competent authority.

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Note: It is not acceptable to fabricate any item to pattern unless an engineering drawing of the item is produced which includes any necessary fabrication process and which is acceptable to the competent authority.

- (h) Where a TC holder or an approved production organisation is prepared to make available complete data which is not referred to in the aircraft manuals or service bulletins but provides manufacturing drawings for items specified in parts lists, the fabrication of these items is not considered to be within the scope of an approval unless agreed otherwise by the competent authority in accordance with a procedure specified in the exposition.
- (i) Inspection and identification

Any locally fabricated part should be subject to inspection before, separately, and preferably independently from any inspection of its installation. The inspection should establish full compliance with the relevant manufacturing data, and the part should be unambiguously identified as fit for use by stating conformity to the approved data. Adequate records should be maintained of all such fabrication processes including heat treatment and final inspections. All parts, except those that do not have enough space, should carry a part number which clearly relates it to the manufacturing/inspection data. In addition to the part's number, the organisation's identity should be marked on the part for traceability purposes.

## AMC1 145.A.42(c) Components

ED Decision 2019/009/R

#### **SEGREGATION OF COMPONENTS**

- (a) Unserviceable components should be identified and stored in a secure location that is under the control of the maintenance organisation until a decision is made on the future status of such components. The organisation that declared the component to be unserviceable may transfer its custody after identifying it as unserviceable to the aircraft owner provided that such transfer is reflected in the aircraft logbook, or engine logbook, or component logbook.
- (b) 'Secure location under the control of an approved maintenance organisation' refers to a secure location whose security is the responsibility of the approved maintenance organisation. This may include facilities that are established by the organisation at locations different from the main maintenance facilities. These locations should be identified in the relevant procedures of the organisation.
- (c) In the case of unsalvageable components, the organisation should:
  - (1) retain such component in the secure location referred to in paragraph (b);
  - (2) arrange for the component to be mutilated in a manner that ensures that they are beyond economic salvage or repair before disposing it; or
  - (3) mark the component indicating that it is unsalvageable, when in agreement with the component owner, the component is disposed of for legitimate non-flight uses (such as training and education aids, research and development), or for non-aviation applications, mutilation is often not appropriate. Alternatively to marking, the original part number or data plate information can be removed or a record kept of the disposal of the components.



# GM1 145.A.42(c)(i) Components

ED Decision 2019/009/R

#### **MUTILATION OF COMPONENTS**

- (a) Mutilation should be accomplished in such a manner that the components become permanently unusable for their originally intended use. Mutilated components should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by replating, shortening and rethreading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.
- (b) Mutilation may be accomplished by one or a combination of the following procedures:
  - (1) grinding;
  - (2) burning;
  - (3) removal of a major lug or other integral feature;
  - (4) permanent distortion of parts;
  - (5) cutting a hole with cutting torch or saw;
  - (6) melting;
  - (7) sawing into many small pieces; and
  - (8) any other method accepted by the competent authority.
- (c) The following procedures are examples of mutilation that are often less successful because they may not be consistently effective:
  - (1) stamping or vibro-etching;
  - (2) spraying with paint;
  - (3) small distortions, incisions, or hammer marks;
  - (4) identification by tags or markings;
  - (5) drilling small holes; and
  - (6) sawing in two pieces only.

## 145.A.45 Maintenance data

Regulation (EU) No 1321/2014; Regulation (EU) 2021/700

- (a) The organisation shall hold and use applicable current maintenance data in the performance of maintenance, including modifications and repairs. 'Applicable' means relevant to any aircraft, component or process specified in the organisation's approval class rating schedule and in any associated capability list.
  - In the case of maintenance data provided by an operator or customer, the organisation shall hold such data when the work is in progress, with the exception of the need to comply with point 145.A.55(c).
- (b) For the purposes of this Part, applicable maintenance data shall be any of the following:
  - 1. Any applicable requirement, procedure, operational directive or information issued by the authority responsible for the oversight of the aircraft or component;

- 2. Any applicable airworthiness directive issued by the authority responsible for the oversight of the aircraft or component;
- 3. Instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders, any other organisation required to publish such data by Annex I (Part-21) to Regulation (EU) No 748/2012 and in the case of aircraft or components from third countries the airworthiness data mandated by the authority responsible for the oversight of the aircraft or component;
- 4. Any applicable standard, such as but not limited to, maintenance standard practices recognised by the Agency as a good standard for maintenance;
- 5. Any applicable data issued in accordance with point (d).
- (b) Applicable maintenance data is the data specified in point M.A.401(b) of Annex I (Part-M) or in point ML.A.401(b) of Annex Vb (Part-ML), as applicable.
  - [applicable from 18 May 2022]
- (c) The organisation shall establish procedures to ensure that if found, any inaccurate, incomplete or ambiguous procedure, practice, information or maintenance instruction contained in the maintenance data used by maintenance personnel is recorded and notified to the author of the maintenance data.
- (d) The organisation may only modify maintenance instructions in accordance with a procedure specified in the maintenance organisation's exposition. With respect to those changes, the organisation shall demonstrate that they result in equivalent or improved maintenance standards and shall inform the type-certificate holder of such changes. Maintenance instructions for the purposes of this point means instructions on how to carry out the particular maintenance task: they exclude the engineering design of repairs and modifications.
- (e) The organisation shall provide a common work card or worksheet system to be used throughout relevant parts of the organisation. In addition, the organisation shall either transcribe accurately the maintenance data contained in points (b) and (d) onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data. Work cards and worksheets may be computer generated and held on an electronic database subject to both adequate safeguards against unauthorised alteration and a back-up electronic database which shall be updated within 24 hours of any entry made to the main electronic database. Complex maintenance tasks shall be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure a record of the accomplishment of the complete maintenance task.

Where the organisation provides a maintenance service to an aircraft operator who requires their work card or worksheet system to be used then such work card or worksheet system may be used. In this case, the organisation shall establish a procedure to ensure correct completion of the aircraft operators' work cards or worksheets.

- (f) The organisation shall ensure that all applicable maintenance data is readily available for use when required by maintenance personnel.
- (g) The organisation shall establish a procedure to ensure that maintenance data it controls is kept up to date. In the case of operator/customer controlled and provided maintenance data, the organisation shall be able to show that either it has written confirmation from the operator/customer that all such maintenance data is up to date or it has work orders specifying the amendment status of the maintenance data to be used or it can show that it is on the operator/customer maintenance data amendment list.



## AMC 145.A.45(b) Maintenance data

ED Decision 2015/029/R

- 1. Except as specified in sub-paragraph 5, each maintenance organisation approved under <a href="Part-145">Part-145</a> should hold and use the following minimum maintenance data relevant to the organisation's approval class rating. All maintenance related Implementing Rules and associated AMCs, approval specifications and Guidance Material, all applicable national maintenance requirements and notices which have not been superseded by an Agency requirement, procedure or directive and all applicable EASA airworthiness directives plus any non-national airworthiness directive supplied by a contracted non-EU operator or customer as well as Critical Design Configuration Control Limitations.
- 2. In addition to sub-paragraph 1, an organisation with an approval class rating in category A Aircraft, should hold and use the following maintenance data where published. The appropriate sections of the operator's aircraft maintenance programme, aircraft maintenance manual, repair manual, supplementary structural inspection document, corrosion control document, service bulletins, service letters, service instructions, modification leaflets, NDT manual, parts catalogue, type certificate data sheet and any other specific document issued by the type certificate or supplementary type certificate holder as maintenance data.
- 3. In addition to subparagraph 1, an organisation with an approval class rating in category B Engines/APUs, should hold and use the following maintenance data where published. The appropriate sections of the engine/APU maintenance and repair manual, service bulletins, service letters, modification leaflets, non-destructive testing (NDT) manual, parts catalogue, type certificate data sheet and any other specific document issued by the type certificate holder as maintenance data.
- 4. In addition to sub-paragraph 1, an organisation with an approval class rating in category C Components other than complete engines/APUs, should hold and use the following maintenance data where published. The appropriate sections of the vendor maintenance and repair manual, service bulletins and service letters plus any document issued by the type certificate holder as maintenance data on whose product the component may be fitted when applicable.
- 5. Appropriate sections of the sub-paragraphs 2 to 4 additional maintenance data means in relation to the maintenance work scope at each particular maintenance facility. For example, a base maintenance facility should have almost complete set(s) of the maintenance data whereas a line maintenance facility may need only the maintenance manual and the parts catalogue.
- 6. An organisation only approved in class rating category D Specialised services, should hold and use all applicable specialised service(s) process specifications.

[deleted from 18 May 2022]

# GM1 145.A.45(b) Maintenance data

ED Decision 2021/009/F

The provisions of GM1 M.A.401(b)(3) and (b)(4), GM1 M.A.401(b)(4) and GM1 ML.A.401(b) apply. [applicable from 18 May 2022]



## AMC 145.A.45(c) Maintenance data

ED Decision 2015/029/R

- 1. The referenced procedure should ensure that when maintenance personnel discover inaccurate, incomplete or ambiguous information in the maintenance data they should record the details. The procedure should then ensure that the <a href="Part-145">Part-145</a> approved maintenance organisation notifies the problem to the author of the maintenance data in a timely manner. A record of such communications to the author of the maintenance data should be retained by the Part-145 approved organisation until such time as the type certificate holder has clarified the issue by e.g. amending the maintenance data.
- 2. The referenced procedure should be specified in the maintenance organisation exposition.

## AMC 145.A.45(d) Maintenance data

ED Decision 2015/029/R

The referenced procedure should address the need for a practical demonstration by the mechanic to the quality personnel of the proposed modified maintenance instruction. When satisfied the quality personnel should approve the modified maintenance instruction and ensure that the type certificate or supplementary type certificate holder is informed of the modified maintenance instruction. The procedure should include a paper/electronic traceability of the complete process from start to finish and ensure that the relevant maintenance instruction clearly identifies the modification. Modified maintenance instructions should only be used in the following circumstances:

- (a) Where the type certificate / supplementary type certificate holders original intent can be carried out in a more practical or more efficient manner.
- (b) Where the type certificate / supplementary type certificate holders original intent cannot be achieved by following the maintenance instructions. For example, where a component cannot be replaced following the original maintenance instructions.
- (c) For the use of alternative tools / equipment.

Important Note: Critical Design Configuration Control Limitations (CDCCL) are airworthiness limitations. Any modification of the maintenance instructions linked to CDCCL constitutes an aircraft modification that should be approved in accordance with Part-21.

# AMC 145.A.45(e) Maintenance data

ED Decision 2015/029/R

- 1. The maintenance organisation should:
  - transcribe accurately the maintenance data onto such work cards or worksheets, or
  - make precise reference to the particular maintenance task(s) contained in such maintenance data, which already identifies the task as a CDCCL where applicable.
- 2. Relevant parts of the organisation means with regard to aircraft base maintenance, aircraft line maintenance, engine workshops, mechanical workshops and avionic workshops. Therefore, engine workshops for example should have a common system throughout such engine workshops that may be different to that in the aircraft base maintenance.
- 3. The workcards should differentiate and specify, when relevant, disassembly, accomplishment of task, reassembly and testing. In the case of a lengthy maintenance task involving a succession of personnel to complete such a task, it may be necessary to use supplementary workcards or worksheets to indicate what was actually accomplished by each individual person.

## AMC 145.A.45(f) Maintenance data

ED Decision 2015/029/R

- 1. Data being made available to personnel maintaining aircraft means that the data should be available in close proximity to the aircraft being maintained for supervisors, mechanics and certifying staff to study.
- 2. Where computer systems are used, the number of computer terminals should be sufficient in relation to the size of the work programme to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.

## AMC 145.A.45(g) Maintenance data

ED Decision 2015/029/R

To keep data up-to-date, a procedure should be set up to monitor the amendment status of all data and maintain a check that all amendments are being received by being a subscriber to any document amendment scheme. Special attention should be given to TC related data such as certification life-limited parts, airworthiness limitations and Airworthiness Limitation Items (ALI), etc.

## 145.A.47 Production planning

Regulation (EU) No 1321/2014

- (a) The organisation shall have a system appropriate to the amount and complexity of work to plan the availability of all necessary personnel, tools, equipment, material, maintenance data and facilities in order to ensure the safe completion of the maintenance work.
- (b) The planning of maintenance tasks, and the organising of shifts, shall take into account human performance limitations.
- (c) When it is required to hand over the continuation or completion of maintenance tasks for reasons of a shift or personnel changeover, relevant information shall be adequately communicated between outgoing and incoming personnel.

# AMC 145.A.47(a) Production planning

ED Decision 2016/011/R

- Depending on the amount and complexity of work generally performed by the maintenance organisation, the planning system may range from a very simple procedure to a complex organisational set-up including a dedicated planning function in support of the production function.
- 2. For the purpose of <u>Part-145</u>, the production planning function includes two complementary elements:
  - scheduling the maintenance work ahead, to ensure that it will not adversely interfere
    with other work as regards the availability of all necessary personnel, tools, equipment,
    material, maintenance data and facilities.
  - during maintenance work, organising maintenance teams and shifts and provide all necessary support to ensure the completion of maintenance without undue time pressure.

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- 3. When establishing the production planning procedure, consideration should be given to the following:
  - logistics,
  - inventory control,
  - square meters of accommodation,
  - man-hours estimation,
  - man-hours availability,
  - preparation of work,
  - hangar availability,
  - environmental conditions (access, lighting standards and cleanliness),
  - co-ordination with internal and external suppliers, etc.
  - scheduling critical maintenance tasks during periods when staff are likely to be most alert.

# AMC 145.A.47(b) Production planning

ED Decision 2015/029/R

Limitations of human performance, in the context of planning safety related tasks, refers to the upper and lower limits, and variations, of certain aspects of human performance (Circadian rhythm / 24 hours body cycle) which personnel should be aware of when planning work and shifts.

## AMC 145.A.47(c) Production planning

ED Decision 2015/029/R

The primary objective of the changeover / handover information is to ensure effective communication at the point of handing over the continuation or completion of maintenance actions. Effective task and shift handover depends on three basic elements:

- The outgoing person's ability to understand and communicate the important elements of the job or task being passed over to the incoming person.
- The incoming person's ability to understand and assimilate the information being provided by the outgoing person.
- A formalised process for exchanging information between outgoing and incoming persons and a planned shift overlap and a place for such exchanges to take place.

## 145.A.48 Performance of maintenance

Regulation (EU) 2020/270

The organisation shall establish procedures to ensure that:

- (a) after completion of maintenance a general verification is carried out to ensure that the aircraft or component is clear of all tools, equipment and any extraneous parts or material, and that all access panels removed have been refitted;
- (b) an error capturing method is implemented after the performance of any critical maintenance task;

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- (c) the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised; and,
- (d) damage is assessed and modifications and repairs are carried out using data specified in point M.A.304 of Annex I (Part-M) or ML.A.304 of Annex Vb (Part-ML), as applicable.

## **GM 145.A.48 Performance of maintenance**

ED Decision 2016/011/R

#### **AUTHORISED PERSON**

An 'authorised person' is a person formally authorised by the maintenance organisation to perform or supervise a maintenance task. An 'authorised person' is not necessarily 'certifying staff'.

#### SIGN-OFF

A 'sign-off' is a statement issued by the 'authorised person' which indicates that the task or group of tasks has been correctly performed. A 'sign-off' relates to one step in the maintenance process and is, therefore, different to a certificate of release to service.

# AMC1 145.A.48(b) Performance of maintenance

ED Decision 2016/011/R

The procedure should identify the error-capturing methods, the critical maintenance tasks, the training and qualification of staff applying error-capturing methods, and how the organisation ensures that its staff is familiar with critical maintenance tasks and error-capturing methods.

## AMC2 145.A.48(b) Performance of maintenance

ED Decision 2016/011/R

## **CRITICAL MAINTENANCE TASKS**

- (a) The procedure should ensure that the following maintenance tasks are reviewed to assess their impact on flight safety:
  - (1) tasks that may affect the control of the aircraft flight path and attitude, such as installation, rigging and adjustments of flight controls;
  - (2) aircraft stability control systems (autopilot, fuel transfer);
  - (3) tasks that may affect the propulsive force of the aircraft, including installation of aircraft engines, propellers and rotors; and
  - (4) overhaul, calibration or rigging of engines, propellers, transmissions and gearboxes.
- (b) The procedure should describe which data sources are used to identify critical maintenance tasks. Several data sources may be used, such as:
  - (1) information from the design approval holder;
  - (2) accident reports;
  - (3) investigation and follow-up of incidents;
  - (4) occurrence reporting;
  - (5) flight data analysis;
  - (6) results of audits;

- (7) normal operations monitoring schemes; and
- (8) feedback from training.

## AMC3 145.A.48(b) Performance of maintenance

ED Decision 2016/011/R

#### **ERROR-CAPTURING METHODS**

- (a) Error-capturing methods are those actions defined by the organisation to detect maintenance errors made when performing maintenance.
- (b) The organisation should ensure that the error-capturing methods are adequate for the work and the disturbance of the system. A combination of several actions (visual inspection, operational check, functional test, rigging check) may be necessary in some cases.

## AMC4 145.A.48(b) Performance of maintenance

ED Decision 2016/011/R

#### INDEPENDENT INSPECTION

Independent inspection is one possible error-capturing method.

(a) What is an independent inspection

An independent inspection is an inspection performed by an 'independent qualified person' of a task carried out by an 'authorised person', taking into account that:

- (1) the 'authorised person' is the person who performs the task or supervises the task and they assume the full responsibility for the completion of the task in accordance with the applicable maintenance data;
- (2) the 'independent qualified person' is the person who performs the independent inspection and attests the satisfactory completion of the task and that no deficiencies have been found. The 'independent qualified person' does not issue a certificate of release to service, therefore they are not required to hold certification privileges;
- (3) the 'authorised person' issues the certificate of release to service or signs off the completion of the task after the independent inspection has been carried out satisfactorily;
- (4) the work card system used by the organisation should record the identification of both persons and the details of the independent inspection as necessary before the certificate of release to service or sign-off for the completion of the task is issued.
- (b) Qualifications of persons performing independent inspections

The organisation should have procedures to demonstrate that the 'independent qualified person' has been trained and has gained experience in the specific inspection to be performed. The organisation could consider making use of, for example:

- (1) staff holding a certifying staff or support staff or sign-off authorisation or equivalent necessary to release or sign off the critical maintenance task;
- (2) staff holding a certifying staff or support staff or sign-off authorisation or equivalent necessary to release or sign off similar task in a product of similar category and having received specific practical training in the task to be inspected; or

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- (3) a commander holding a limited certification authorisation in accordance with <a href="145.A.30(j)(4)">145.A.30(j)(4)</a> and having received adequate practical training and having enough experience in the specific task to be inspected and on how to perform independent inspection.
- (c) How to perform an independent inspection

An independent inspection should ensure correct assembly, locking and sense of operation. When inspecting control systems that have undergone maintenance, the independent qualified person should consider the following points independently:

- (1) all those parts of the system that have actually been disconnected or disturbed should be inspected for correct assembly and locking;
- (2) the system as a whole should be inspected for full and free movement over the complete range;
- (3) cables should be tensioned correctly with adequate clearance at secondary stops;
- (4) the operation of the control system as a whole should be observed to ensure that the controls are operating in the correct sense;
- (5) if different control systems are interconnected so that they affect each other, all the interactions should be checked through the full range of the applicable controls; and
- (6) software that is part of the critical maintenance task should be checked, for example: version, compatibility with aircraft configuration.
- (d) What to do in unforeseen cases when only one person is available

#### **REINSPECTION:**

- (1) Reinspection is an error-capturing method subject to the same conditions as an independent inspection is, except that the 'authorised person' performing the maintenance task is also acting as 'independent qualified person' and performs the inspection.
- (2) Reinspection, as an error-capturing method, should only be performed in unforeseen circumstances when only one person is available to carry out the task and perform the independent inspection. The circumstances cannot be considered unforeseen if the person or organisation has not assigned a suitable 'independent qualified person' to that particular line station or shift.
- (3) The certificate of release to service is issued after the task has been performed by the 'authorised person' and the reinspection has been carried out satisfactorily. The work card system used by the organisation should record the identification and the details of the reinspection before the certificate of release to service for the task is issued.

# AMC 145.A.48(c) Performance of maintenance

ED Decision 2016/011/R

The procedures should be aimed at:

- (a) minimising multiple errors and preventing omissions. Therefore, the procedures should specify:
  - (1) that every maintenance task is signed off only after completion;
  - (2) how the grouping of tasks for the purpose of sign-off allows critical steps to be clearly identified; and

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- (3) that work performed by personnel under supervision (i.e. temporary staff, trainees) is checked and signed off by an authorised person;
- (b) minimising the possibility of an error being repeated in identical tasks and, therefore, compromising more than one system or function. Thus, the procedures should ensure that no person is required to perform a maintenance task involving removal/installation or assembly/disassembly of several components of the same type fitted to more than one system, a failure of which could have an impact on safety, on the same aircraft or component during a particular maintenance check. However, in unforeseen circumstances when only one person is available, the organisation may make use of reinspection as described in point (d) of <u>AMC4 145.A.48(b)</u>.

# GM 145.A.48(c) Performance of maintenance

ED Decision 2020/002/R

To minimise the risk of multiple errors or errors being repeated, the organisation may implement:

- procedures to plan the performance by different persons of the same task in different systems;
- independent inspection or re-inspection procedures.

# GM 145.A.48(d) Performance of maintenance – critical design configuration control limitations (CDCCL)

ED Decision 2020/002/R

The organisation should ensure that when performing maintenance the CDCCL are not compromised. The organisation should pay particular attention to possible adverse effects of any change to the wiring of the aircraft, even of a change not specifically associated with the fuel tank system. For example, it should be common practice to identify segregation of fuel gauging system wiring as a CDCCL. The organisation can prevent adverse effects associated with changes to the wiring by standardising maintenance practices through training, and not through periodic inspections. Training should be provided to avoid indiscriminate routing and splicing of wire and to provide comprehensive knowledge of critical design features of fuel tank systems that would be controlled by a CDCCL. Guidance on the training of maintenance organisation personnel is provided in Appendix IV to AMC 145.A.30(e) and 145.B.10(3).

## 145.A.50 Certification of maintenance

Regulation (EU) 2020/270

- (a) A certificate of release to service shall be issued by appropriately authorised certifying staff on behalf of the organisation when it has been verified that all maintenance ordered has been properly carried out by the organisation in accordance with the procedures specified in point 145.A.70, taking into account the availability and use of the maintenance data specified in point 145.A.45 and that there are no non-compliances which are known to endanger flight safety.
- (b) A certificate of release to service shall be issued before flight at the completion of any maintenance.
- (c) New defects or incomplete maintenance work orders identified during the above maintenance shall be brought to the attention of the aircraft operator for the specific purpose of obtaining agreement to rectify such defects or completing the missing elements of the maintenance work order. In the case where the aircraft operator declines to have such maintenance carried out under this point, point (e) is applicable.

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- (d) A certificate of release to service shall be issued after the required maintenance on a component whilst off the aircraft has been carried out. The authorised release certificate 'EASA Form 1' referred to in Appendix II of Annex I (Part-M) constitutes the component certificate of release to service except if otherwise specified in point M.A.502 of Annex I (Part-M) or ML.A.502 of Annex Vb (Part-ML), as applicable. When an organisation maintains a component for its own use, an EASA Form 1 may not be necessary depending upon the organisation's internal release procedures defined in the exposition.
- (e) By derogation to point (a), when the organisation is unable to complete all maintenance ordered, it may issue a certificate of release to service within the approved aircraft limitations. The organisation shall enter such fact in the aircraft certificate of release to service before the issue of such certificate.
- (f) By derogation to points (a) and <a href="145.A.42">145.A.42</a>, when an aircraft is grounded at a location other than the main line station or main maintenance base due to the non-availability of a component with the appropriate release certificate, it is permissible to temporarily fit a component without the appropriate release certificate for a maximum of 30 flight hours or until the aircraft first returns to the main line station or main maintenance base, whichever is the sooner, subject to the aircraft operator agreement and said component having a suitable release certificate but otherwise in compliance with all applicable maintenance and operational requirements. Such components shall be removed by the above prescribed time limit unless an appropriate release certificate has been obtained in the meantime under points (a) and <a href="145.A.42">145.A.42</a>.

# AMC 145.A.50 Certification of maintenance after embodiment of a Standard Change or Standard Repair (SC/SR)

ED Decision 2020/002/R

<u>AMC M.A.801</u> of the AMC to Part-M and <u>AMC1 ML.A.801</u> of the AMC to Part-ML contain acceptable means of compliance for the release to service of a SC/SR by an organisation approved in accordance with <u>Part-145</u>.

# AMC 145.A.50(a) Certification of maintenance

ED Decision 2015/029/R

'Endangers the flight safety' means any instances where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning, electrical arcing, significant hydraulic fluid or fuel leakage and any emergency system or total system failure. An airworthiness directive overdue for compliance is also considered a hazard to flight safety.

# AMC 145.A.50(b) Certification of maintenance

ED Decision 2015/029/R

- 1. The certificate of release to service should contain the following statement:
  - 'Certifies that the work specified, except as otherwise specified, was carried out in accordance with <u>Part-145</u> and in respect to that work the aircraft/aircraft component is considered ready for release to service'.
  - Reference should also be made to the EASA <u>Part-145</u> approval number.
- 2. It is acceptable to use an alternate abbreviated certificate of release to service consisting of the following statement 'Part-145 release to service' instead of the full certification statement

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specified in paragraph 1. When the alternate abbreviated certificate of release to service is used, the introductory section of the technical log should include an example of the full certification statement from paragraph 1.

- 3. The certificate of release to service should relate to the task specified in the (S)TC holder's or operator's instructions or the aircraft maintenance programme which itself may cross-refer to maintenance data.
- 4. The date such maintenance was carried out should include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings etc., as appropriate.
- 5. When extensive maintenance has been carried out, it is acceptable for the certificate of release to service to summarise the maintenance as long as there is a unique cross-reference to the work package containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.

# AMC1 145.A.50(d) Certification of maintenance

ED Decision 2015/029/R

The purpose of the certificate is to release assemblies/items/components/parts (hereafter referred to as 'item(s)') after maintenance and to release maintenance work carried out on such items under the approval of a competent authority and to allow items removed from one aircraft/aircraft component to be fitted to another aircraft/aircraft component.

The certificate is to be used for export/import purposes, as well as for domestic purposes, and serves as an official certificate for items from the manufacturer/maintenance organisation to users.

It can only be issued by organisations approved by the particular competent authority within the scope of the approval.

The certificate may be used as a rotable tag by utilising the available space on the reverse side of the certificate for any additional information and dispatching the item with two copies of the certificate so that one copy may be eventually returned with the item to the maintenance organisation. The alternative solution is to use existing rotable tags and also supply a copy of the certificate.

A certificate should not be issued for any item when it is known that the item is unserviceable except in the case of an item undergoing a series of maintenance processes at several maintenance organisations approved under <u>Part-145</u> and the item needs a certificate for the previous maintenance process carried out for the next maintenance organisation approved under <u>Part-145</u> to accept the item for subsequent maintenance processes. In such a case, a clear statement of limitation should be endorsed in Block 12.

# AMC2 145.A.50(d) Certification of maintenance

ED Decision 2020/002/F

- 1. A component which has been maintained off the aircraft needs the issuance of a certificate of release to service for such maintenance and another certificate of release to service in regard to being installed properly on the aircraft when such action occurs.
  - When an organisation maintains a component for use by the same organisation, an  $\underline{\sf EASA\ Form\ 1}$  may not be necessary depending upon the organisation's internal release procedures defined in the maintenance organisation exposition.

- 2. In the case of the issue of <u>EASA Form 1</u> for components in storage before <u>Part-145</u> and Part-21 became effective and not released on an <u>EASA Form 1</u> or equivalent in accordance with <u>145.A.42(a)</u> or removed serviceable from a serviceable aircraft or an aircraft which has been withdrawn from service the following applies:
  - 2.1. An EASA Form 1 may be issued for an aircraft component which has been:
    - Maintained before <u>Part-145</u> became effective or manufactured before Part-21 became effective.
    - Used on an aircraft and removed in a serviceable condition. Examples include leased and loaned aircraft components.
    - Removed from aircraft which have been withdrawn from service, or from aircraft
      which have been involved in abnormal occurrences such as accidents, incidents,
      heavy landings or lightning strikes.
    - Maintained by an unapproved organisation.
  - 2.2. An appropriately rated maintenance organisation approved under <a href="Part-145">Part-145</a> may issue an <a href="EASA Form 1">EASA Form 1</a> as detailed in this AMC subparagraph 2.5 to 2.9, as appropriate, in accordance with procedures detailed in the exposition as approved by the competent authority. The appropriately rated organisation is responsible for ensuring that all reasonable measures have been taken to ensure that only approved and serviceable aircraft components are issued an <a href="EASA Form 1">EASA Form 1</a> under this paragraph.
  - 2.3. For the purposes of this AMC No 2 only, appropriately rated means an organisation with an approval class rating for the type of component or for the product in which it may be installed.
  - 2.4. An <u>EASA Form 1</u> issued in accordance with this paragraph 2 should be issued by signing in block 14b and stating 'Inspected/Tested' in block 11. In addition, block 12 should specify:
    - 2.4.1. When the last maintenance was carried out and by whom.
    - 2.4.2. If the component is unused, when the component was manufactured and by whom with a cross-reference to any original documentation which should be included with the Form.
    - 2.4.3. A list of all airworthiness directives, repairs and modifications known to have been incorporated. If no airworthiness directives or repairs or modifications are known to be incorporated, then this should be so stated.
    - 2.4.4. Detail of life used for life-limited parts and time-controlled components being any combination of fatigue, overhaul or storage life.
    - 2.4.5. For any aircraft component having its own maintenance history record, reference to the particular maintenance history record as long as the record contains the details that would otherwise be required in block 12. The maintenance history record and acceptance test report or statement, if applicable, should be attached to the EASA Form 1.
  - 2.5. New/unused aircraft components
    - 2.5.1. Any unused aircraft component in storage without an <u>EASA Form 1</u> up to the effective date(s) for Part-21 that was manufactured by an organisation acceptable to the competent authority at that time may be issued with an <u>EASA Form 1</u> by an

appropriately rated maintenance organisation approved under <u>Part-145</u>. The EASA Form 1 should be issued in accordance with the following subparagraphs which should be included in a procedure within the maintenance organisation manual.

Note 1: It should be understood that the release of a stored but unused aircraft component in accordance with this paragraph represents a maintenance release under Part-145 and not a production release under Part-21. It is not intended to bypass the production release procedure agreed by the Member State for parts and subassemblies intended for fitment on the manufacturers' own production line

- (a) An acceptance test report or statement should be available for all used and unused aircraft components that are subjected to acceptance testing after manufacturing or maintenance as appropriate.
- (b) The aircraft component should be inspected for compliance with the manufacturer's instructions and limitations for storage and condition including any requirement for limited storage life, inhibitors, controlled climate and special storage containers. In addition or in the absence of specific storage instructions the aircraft component should be inspected for damage, corrosion and leakage to ensure good condition.
- (c) The storage life used of any storage life-limited parts should be established.
- 2.5.2. If it is not possible to establish satisfactory compliance with all applicable conditions specified in subparagraph 2.5.1(a) to (c) inclusive, the aircraft component should be disassembled by an appropriately rated organisation and subjected to a check for incorporated airworthiness directives, repairs and modifications and inspected/tested in accordance with the maintenance data to establish satisfactory condition and, if relevant, all seals, lubricants and life-limited parts should be replaced. Upon satisfactory completion after reassembly, an <a href="EASA Form 1">EASA Form 1</a> may be issued stating what was carried out and the reference of the maintenance data included.
- 2.6. Used aircraft components removed from a serviceable aircraft
  - 2.6.1. Serviceable aircraft components removed from a Member State registered aircraft may be issued with an <u>EASA Form 1</u> by an appropriately rated organisation subject to compliance with this subparagraph.
    - (a) The organisation should ensure that the component was removed from the aircraft by an appropriately qualified person.
    - (b) The aircraft component may only be deemed serviceable if the last flight operation with the component fitted revealed no faults on that component/related system.
    - (c) The aircraft component should be inspected for satisfactory condition including in particular damage, corrosion or leakage and compliance with any additional maintenance data.
    - (d) The aircraft record should be researched for any unusual events that could affect the serviceability of the aircraft component such as involvement in accidents, incidents, heavy landings or lightning strikes. Under no circumstances may an <a href="EASA Form 1">EASA Form 1</a> be issued in accordance with this paragraph 2.6 if it is suspected that the aircraft component has been

- subjected to extremes of stress, temperatures or immersion which could affect its operation.
- (e) A maintenance history record should be available for all used serialised aircraft components.
- (f) Compliance with known modifications and repairs should be established.
- (g) The flight hours/cycles/landings as applicable of any life-limited parts and time-controlled components including time since overhaul should be established.
- (h) Compliance with known applicable airworthiness directives should be established.
- (i) Subject to satisfactory compliance with this subparagraph 2.6.1, an <u>EASA Form 1</u> may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.
- 2.6.2. Serviceable aircraft components removed from a non-Member State registered aircraft may only be issued with an <u>EASA Form 1</u> if the components are leased or loaned from the maintenance organisation approved under <u>Part-145</u> who retains control of the airworthiness status of the components. An <u>EASA Form 1</u> may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.
- 2.7. Used aircraft components removed from an aircraft withdrawn from service. Serviceable aircraft components removed from a Member State registered aircraft withdrawn from service may be issued with an <a href="EASA Form 1">EASA Form 1</a> by a maintenance organisation approved under <a href="Part-145">Part-145</a> subject to compliance with this subparagraph.
  - (a) Aircraft withdrawn from service are sometimes dismantled for spares. This is considered to be a maintenance activity and should be accomplished under the control of an organisation approved under <a href="Part-145">Part-145</a>, employing procedures approved by the competent authority.
  - (b) To be eligible for installation, components removed from such aircraft may be issued with an <u>EASA Form 1</u> by an appropriately rated organisation following a satisfactory assessment.
  - (c) As a minimum, the assessment will need to satisfy the standards set out in paragraphs 2.5 and 2.6 as appropriate. This should, where known, include the possible need for the alignment of scheduled maintenance that may be necessary to comply with the maintenance programme applicable to the aircraft on which the component is to be installed.
  - (d) Irrespective of whether the aircraft holds a certificate of airworthiness or not, the organisation responsible for certifying any removed component should ensure that the manner in which the components were removed and stored are compatible with the standards required by <u>Part-145</u>.
  - (e) A structured plan should be formulated to control the aircraft disassembly process. The disassembly is to be carried out by an appropriately rated organisation under the supervision of certifying staff who will ensure that the aircraft components are removed and documented in a structured manner in accordance with the appropriate maintenance data and disassembly plan.

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- (f) All recorded aircraft defects should be reviewed and the possible effects these may have on both normal and standby functions of removed components are to be considered.
- (g) Dedicated control documentation is to be used as detailed by the disassembly plan, to facilitate the recording of all maintenance actions and component removals performed during the disassembly process. Components found to be unserviceable are to be identified as such and quarantined pending a decision on the actions to be taken. Records of the maintenance accomplished to establish serviceability are to form part of the component maintenance history.
- (h) Suitable Part-145 facilities for the removal and storage of removed components are to be used which include suitable environmental conditions, lighting, access equipment, aircraft tooling and storage facilities for the work to be undertaken. While it may be acceptable for components to be removed, given local environmental conditions, without the benefit of an enclosed facility, subsequent disassembly (if required) and storage of the components should be in accordance with the manufacturer's recommendations.
- 2.8. Used aircraft components maintained by organisations not approved in accordance with <a href="Part-145">Part-145</a>. For used components maintained by a maintenance organisation not approved under <a href="Part-145">Part-145</a>, due care should be taken before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under <a href="Part-145">Part-145</a> should establish satisfactory conditions by:
  - (a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data;
  - (b) replacing all life-limited parts and time-controlled components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition;
  - (c) reassembling and testing as necessary the component;
  - (d) completing all certification requirements as specified in 145.A.50.
- 2.9. Used aircraft components removed from an aircraft involved in an accident or incident. Such components should only be issued with an <a href="EASA Form 1">EASA Form 1</a> when processed in accordance with paragraph 2.7 and a specific work order including all additional necessary tests and inspections deemed necessary by the accident or incident. Such a work order may require input from the TC holder or original manufacturer as appropriate. This work order should be referenced in block 12.

# GM 145.A.50(d) EASA Form 1 Block 12 'Remarks'

ED Decision 2015/029/R

Examples of data to be entered in this block as appropriate:

- Maintenance documentation used, including the revision status, for all work performed and not limited to the entry made in block 11.
- A statement such as 'in accordance with the CMM' is not acceptable.
- NDT methods with appropriate documentation used when relevant.
- Compliance with airworthiness directives or service bulletins.

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- Repairs carried out.
- Modifications carried out.
- Replacement parts installed.
- Life-limited parts status.
- Shelf life limitations.
- Deviations from the customer work order.
- Release statements to satisfy a foreign Civil Aviation Authority maintenance requirement.
- Information needed to support shipment with shortages or re-assembly after delivery.
- References to aid traceability, such as batch numbers.

## AMC 145.A.50(e) Certification of maintenance

ED Decision 2020/002/R

- 1. Being unable to establish full compliance with sub-paragraph Part-145.A.50(a) means that the maintenance required by the aircraft operator could not be completed due either to running out of available aircraft maintenance downtime for the scheduled check or by virtue of the condition of the aircraft requiring additional maintenance downtime or because the maintenance data requires a flight to be performed as part of the maintenance, as described in paragraph 4.
- 2. The aircraft operator is responsible for ensuring that all required maintenance has been carried out before flight and therefore 145.A.50(e) requires such operator to be informed in the case where full compliance with 145.A.50(a) cannot be achieved within the operator's limitations. If the operator agrees to the deferment of full compliance, then the certificate of release to service may be issued subject to details of the deferment, including the operator's authority, being endorsed on the certificate.
  - Note: Whether or not the aircraft operator does have the authority to defer maintenance is an issue between the aircraft operator and the competent authority of the State of Registry or State of operator, as appropriate. In case of doubt concerning such a decision of the operator, the approved maintenance organisation should inform its competent authority on such doubt, before issuing the certificate of release to service. This will allow this competent authority to investigate the matter with the competent authority of the State of Registry or the State of the operator as appropriate.
- 3. The procedure should draw attention to the fact that <a href="145.A.50(a">145.A.50(a</a>) does not normally permit the issue of a certificate of release to service in the case of non-compliance and should state what action the mechanic, supervisor and certifying staff should take to bring the matter to the attention of the relevant department or person responsible for technical co-ordination with the aircraft operator so that the issue may be discussed and resolved with the aircraft operator. In addition, the appropriate person(s) as specified in <a href="145.A.30(b">145.A.30(b</a>) should be kept informed in writing of such possible non-compliance situations and this should be included in the procedure.
- 4. Certain maintenance data issued by the design approval holder (e.g. aircraft maintenance manual (AMM)) requires that a maintenance task be performed in flight as a necessary condition to complete the maintenance ordered. Within the aircraft limitations, an appropriately authorised certifying staff should release the incomplete maintenance before the flight on behalf of the maintenance organisation. GM M.A.301(i) or GM1 ML.A.301(f) describe

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the relations with the aircraft operator, which retains the responsibility for the maintenance check flight (MCF). After performing the flight and any additional maintenance necessary to complete the maintenance ordered, a certificate of release to service should be issued in accordance with 145.A.50(a).

# AMC 145.A.50(f) Certification of maintenance

ED Decision 2015/029/R

- 1. Suitable release certificate means a certificate which clearly states that the aircraft component is serviceable; that clearly specifies the organisation releasing said component together with details of the authority under whose approval the organisation works including the approval or authorisation reference.
- 2. Compliance with all other <u>Part-145</u> and operator requirements means making an appropriate entry in the aircraft technical log, checking for compliance with type design standards, modifications, repairs, airworthiness directives, life limitations and condition of the aircraft component plus information on where, when and why the aircraft was grounded.

## 145.A.55 Maintenance and airworthiness review records

Regulation (EU) 2020/270

- (a) The organisation shall record all details of maintenance work carried out. As a minimum, the organisation shall retain records necessary to prove that all requirements have been met for the issue of the certificate of release to service, including subcontractor's release documents, and for the issue of any airworthiness review certificate.
- (b) The organisation shall provide a copy of each certificate of release to service to the aircraft owner or operator, together with a copy of any detailed maintenance record associated with the work carried out and necessary to demonstrate compliance with point M.A.305 of Annex I (Part-M) or ML.A.305 of Annex Vb (Part-ML), as applicable.
- (c) The organisation shall retain a copy of all detailed maintenance records and any associated maintenance data for three years from the date on which the aircraft or component to which the work relates was issued with a certificate of release to service. In addition, it shall retain a copy of all the records related to the issue of airworthiness review certificates for three years from the date of issue and shall provide a copy of them to the owner of the aircraft.
  - 1. The records under this point shall be stored in a manner that ensures protection from damage, alteration and theft.
  - 2. All computer hardware used to ensure backup shall be stored in a different location from that containing the working data in an environment that ensures they remain in good condition.
  - 3. When an organisation approved under this Annex terminates its operations, all retained maintenance records from the period of three years preceding the termination of operations of the organisation shall be distributed to the last owner or customer of respective aircraft or component or shall be stored in a way specified by the competent authority.

## GM 145.A.55(a) Maintenance and airworthiness review records

ED Decision 2020/002/R

- 1. Properly executed and retained records provide owners, operators and maintenance personnel with information essential in controlling unscheduled and scheduled maintenance, and trouble-shooting to eliminate the need for re-inspection and rework to establish airworthiness.
  - The prime objective is to have secure and easily retrievable records with comprehensive and legible contents. The aircraft record should contain basic details of all serialised aircraft components and all other significant aircraft components installed, to ensure traceability to such installed aircraft component documentation, associated maintenance data and data for modifications and repairs.
- 2. Some gas turbine engines are assembled from modules and a true total time in service for a total engine is not kept. When owners and operators wish to take advantage of the modular design, then total time in service and maintenance records for each module is to be maintained. The maintenance records as specified are to be kept with the module and should show compliance with any mandatory requirements pertaining to that module.
- 3. Reconstruction of lost or destroyed records can be done by reference to other records which reflect the time in service, research of records maintained by repair facilities and reference to records maintained by individual mechanics etc. When these things have been done and the record is still incomplete, the owner/operator may make a statement in the new record describing the loss and establishing the time in service based on the research and the best estimate of time in service. The reconstructed records should be submitted to the competent authority for acceptance.

Note: Additional maintenance may be required.

- 4. The maintenance record can be either a paper or computer system or any combination of both.
- 5. Paper systems should use robust material which can withstand normal handling and filing. The record should remain legible throughout the required retention period.
- 6. Computer systems may be used to control maintenance and/or record details of maintenance work carried out. Computer systems used for maintenance should have at least one backup system which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

## AMC 145.A.55(c) Maintenance and airworthiness review records

ED Decision 2015/029/R

Associated maintenance data is specific information such as repair and modification data. This does not necessarily require the retention of all Aircraft Maintenance Manual, Component Maintenance Manual, IPC etc issued by the TC holder or STC holder. Maintenance records should refer to the revision status of the data used.



## 145.A.60 Occurrence reporting

Regulation (EU) No 1321/2014

- (a) The organisation shall report to the competent authority, the state of registry and the organisation responsible for the design of the aircraft or component any condition of the aircraft or component identified by the organisation that has resulted or may result in an unsafe condition that hazards seriously the flight safety.
- (b) The organisation shall establish an internal occurrence reporting system as detailed in the exposition to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under point (a). This procedure shall identify adverse trends, corrective actions taken or to be taken by the organisation to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.
- (c) The organisation shall make such reports in a form and manner established by the Agency and ensure that they contain all pertinent information about the condition and evaluation results known to the organisation.
- (d) Where the organisation is contracted by a commercial operator to carry out maintenance, the organisation shall also report to the operator any such condition affecting the operator's aircraft or component.
- (e) The organisation shall produce and submit such reports as soon as practicable but in any case within 72 hours of the organisation identifying the condition to which the report relates.

## AMC 145.A.60(a) Occurrence reporting

ED Decision 2015/029/R

AMC 20-8 General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances provides further guidance on occurrence reporting.

# GM 145.A.60(a) Occurrence reporting

ED Decision 2015/029/R

The organisation responsible for the design is normally the TC holder of the aircraft, engine or propeller and/or if known the STC holder.

# AMC 145.A.60(b) Occurrence reporting

ED Decision 2015/029/R

- 1. The aim of occurrence reporting is to identify the factors contributing to incidents, and to make the system resistant to similar errors.
- 2. An occurrence reporting system should enable and encourage free and frank reporting of any (potentially) safety related occurrence. This will be facilitated by the establishment of a just culture. An organisation should ensure that personnel are not inappropriately punished for reporting or co-operating with occurrence investigations.
- 3. The internal reporting process should be closed-loop, ensuring that actions are taken internally to address safety hazards.
- 4. Feedback to reportees, both on an individual and more general basis, is important to ensure their continued support for the scheme.

## GM 145.A.60(c) Occurrence reporting

ED Decision 2015/029/R

Each report should contain at least the following information:

- (i) Organisation name and approval reference.
- (ii) Information necessary to identify the subject aircraft and / or component.
- (iii) Date and time relative to any life or overhaul limitation in terms of flying hours/cycles/landings etc. as appropriate.
- (iv) Details of the condition as required by <u>145.A.60(b)</u>.
- (v) Any other relevant information found during the evaluation or rectification of the condition.

# 145.A.65 Safety and quality policy, maintenance procedures and quality system

Regulation (EU) 2015/1536

- (a) The organisation shall establish a safety and quality policy for the organisation to be included in the exposition under point <u>145.A.70</u>.
- (b) The organisation shall establish procedures agreed by the competent authority taking into account human factors and human performance to ensure good maintenance practices and compliance with the applicable requirements established in <a href="145.A.25">145.A.25</a> to <a href="145.A.25">145.A.25</a>. The procedures under this point shall:
  - ensure that a clear work order or contract has been agreed between the organisation and the organisation requesting maintenance to clearly establish the maintenance to be carried out so that aircraft and components may be released to service in accordance with 145.A.50; and,
  - cover all aspects of carrying out maintenance, including the provision and control of specialised services and lay down the standards to which the organisation intends to work.
- (c) The organisation shall establish a quality system that includes the following:
  - Independent audits in order to monitor compliance with required aircraft/aircraft
    component standards and adequacy of the procedures to ensure that such procedures
    invoke good maintenance practices and airworthy aircraft/aircraft components. In the
    smallest organisations the independent audit part of the quality system may be
    contracted to another organisation approved under this Part or a person with
    appropriate technical knowledge and proven satisfactory audit experience; and
  - 2. A quality feedback reporting system to the person or group of persons specified in point <a href="145.A.30(b">145.A.30(b</a>) and ultimately to the accountable manager that ensures proper and timely corrective action is taken in response to reports resulting from the independent audits established to meet point (1).

# AMC 145.A.65(a) Safety and quality policy, maintenance procedures and quality system

ED Decision 2015/029/R

The safety and quality policy should as a minimum include a statement committing the organisation to:

- Recognise safety as a prime consideration at all times.
- Apply Human factors principles.
- Encourage personnel to report maintenance related errors/incidents.
- Recognise that compliance with procedures, quality standards, safety standards and regulations is the duty of all personnel.
- Recognise the need for all personnel to cooperate with the quality auditors.

# AMC 145.A.65(b) Safety and quality policy, maintenance procedures and quality system

ED Decision 2015/029/R

- 1. Maintenance procedures should be held current such that they reflect best practice within the organisation. It is the responsibility of all organisation's employees to report any differences via their organisation's internal occurrence reporting mechanisms.
- 2. All procedures, and changes to those procedures, should be verified and validated before use where practicable.
- 3. All technical procedures should be designed and presented in accordance with good human factors principles.

# GM 145.A.65(b)(1) Safety and quality policy, maintenance procedures and quality system

ED Decision 2021/009/R

Appendix XI to AMC M.A.708(c) or Appendix IV to AMC1 CAMO.A.315(c) provide guidance on the elements that need to be considered for the maintenance contract between the CAMO and the maintenance organisation. The <a href="Part-145">Part-145</a> organisation should take into account these elements to ensure that a clear contract or work order has been concluded before providing maintenance services.

# AMC 145.A.65(b)(2) Safety and quality policy, maintenance procedures and quality system

ED Decision 2015/029/R

Specialised services include any specialised activity, such as, but not limited to non-destructive testing requiring particular skills and/or qualification. <a href="145.A.30(f">145.A.30(f</a>) covers the qualification of personnel but, in addition, there is a need to establish maintenance procedures that cover the control of any specialised process.

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# AMC 145.A.65(c)(1) Safety and quality policy, maintenance procedures and quality system

ED Decision 2015/029/R

- 1. The primary objectives of the quality system are to enable the organisation to ensure that it can deliver a safe product and that organisation remains in compliance with the requirements.
- 2. An essential element of the quality system is the independent audit.
- 3. The independent audit is an objective process of routine sample checks of all aspects of the organisation's ability to carry out all maintenance to the required standards and includes some product sampling as this is the end result of the maintenance process. It represents an objective overview of the complete maintenance related activities and is intended to complement the <a href="145.A.50(a">145.A.50(a</a>) requirement for certifying staff to be satisfied that all required maintenance has been properly carried out before issue of the certificate of release to service. Independent audits should include a percentage of random audits carried out on a sample basis when maintenance is being carried out. This means some audits during the night for those organisations that work at night.
- 4. Except as specified in sub-paragraphs 7 and 9, the independent audit should ensure that all aspects of <a href="Part-145">Part-145</a> compliance are checked every 12 months and may be carried out as a complete single exercise or subdivided over the 12 month period in accordance with a scheduled plan. The independent audit does not require each procedure to be checked against each product line when it can be shown that the particular procedure is common to more than one product line and the procedure has been checked every 12 months without resultant findings. Where findings have been identified, the particular procedure should be rechecked against other product lines until the findings have been rectified after which the independent audit procedure may revert back to 12 monthly for the particular procedure.
- 5. Except as specified otherwise in subparagraphs 7, the independent audit should sample check one product on each product line every 12 months as a demonstration of the effectiveness of maintenance procedures compliance. It is recommended that procedures and product audits be combined by selecting a specific product example, such as an aircraft or engine or instrument and sample checking all the procedures and requirements associated with the specific product example to ensure that the end result should be an airworthy product.
  - For the purpose of the independent audit, a product line includes any product under an Appendix II approval class rating as specified in the approval schedule issued to the particular organisation.
  - It therefore follows for example that a maintenance organisation approved under <u>Part-145</u> with a capability to maintain aircraft, repair engines, brakes and autopilots would need to carry out four complete audit sample checks each year except as specified otherwise in subparagraphs 5, 7 or 9.
- 6. The sample check of a product means to witness any relevant testing and visually inspect the product and associated documentation. The sample check should not involve repeat disassembly or testing unless the sample check identifies findings requiring such action.
- 7. Except as specified otherwise in sub-paragraph 9, where the smallest organisation, that is an organisation with a maximum of 10 personnel actively engaged in maintenance, chooses to contract the independent audit element of the quality system in accordance with <a href="https://doi.org/10.1036/j.cc/1.0/">145.A.65(c)(1)</a> it is conditional on the audit being carried out twice in every 12 month period.

- 8. Except as specified otherwise in sub-paragraph 9, where the organisation has line stations listed as per 145.A.75(d) the quality system should describe how these are integrated into the system and include a plan to audit each listed line station at a frequency consistent with the extent of flight activity at the particular line station. Except as specified otherwise in sub-paragraph 9 the maximum period between audits of a particular line station should not exceed 24 months.
- 9. Except as specified otherwise in sub-paragraph 5, the competent authority may agree to increase any of the audit time periods specified in this <u>AMC 145.A.65(c)(1)</u> by up to 100% provided that there are no safety related findings and subject to being satisfied that the organisation has a good record of rectifying findings in a timely manner.
- 10. A report should be raised each time an audit is carried out describing what was checked and the resulting findings against applicable requirements, procedures and products.
- 11. The independence of the audit should be established by always ensuring that audits are carried out by personnel not responsible for the function, procedure or products being checked. It therefore follows that a large maintenance organisation approved under <a href="Part-145">Part-145</a>, being an organisation with more than about 500 maintenance staff should have a dedicated quality audit group whose sole function is to conduct audits, raise finding reports and follow up to check that findings are being rectified. For the medium sized maintenance organisation approved under Part-145, being an organisation with less than about 500 maintenance staff, it is acceptable to use competent personnel from one section/department not responsible for the production function, procedure or product to audit the section/department that is responsible subject to the overall planning and implementation being under the control of the quality manager. Organisations with a maximum of 10 maintenance staff actively engaged in carrying out maintenance may contract the independent audit element of the quality system to another organisation or a qualified and competent person approved by the competent authority.

# GM 145.A.65(c)(1) Safety and quality policy, maintenance procedures and quality system

ED Decision 2020/002/R

- 1. The purpose of this GM is to give guidance on just one acceptable working audit plan to meet part of the needs of  $\underline{145.A.65(c)1}$ . There is any number of other acceptable working audit plans.
- 2. The proposed plan lists the subject matter that should be covered by the audit and attempts to indicate applicability in the various types of workshops and aircraft facilities. The list should therefore be tailored for the particular situation and more than one list may be necessary. Each list should be shown against a timetable to indicate when the particular item is scheduled for audit and when the audit was completed.

PARA	Comment	HANGAR	ENGINE	MECH	AVIONIC
			Workshop	Workshop	Workshop
145.A.25		Yes	Yes	Yes	Yes
<u>145.A.30</u>		Yes	Yes	Yes	Yes
145.A.35		Yes	Yes	Yes	Yes
<u>145.A.36</u>		Yes	No	No	No
145.A.40		Yes	Yes	Yes	Yes
145.A.42		Yes	Yes	Yes	Yes
145.A.45		Yes	Yes	Yes	Yes
145.A.47		Yes	Yes	Yes	Yes



PARA	Comment	HANGAR	ENGINE	MECH	AVIONIC
			Workshop	Workshop	Workshop
145.A.48		Yes	Yes	if appl.	if appl.
145.A.50		Yes	Yes	Yes	Yes
145.A.55		Yes	Yes	Yes	Yes
145.A.60		Yes	Yes	Yes	Yes
145.A.65		Yes	Yes	Yes	Yes
2.1	MOE	Yes	Yes	Yes	Yes
2.2	MOE	Yes	Yes	Yes	Yes
2.3	MOE	Yes	Yes	Yes	Yes
2.4	MOE	Yes	Yes	Yes	Yes
2.5	MOE	Yes	Yes	Yes	Yes
2.6	MOE	Yes	Yes	Yes	Yes
2.7	MOE	Yes	Yes	Yes	Yes
2.8	MOE	Yes	Yes	Yes	Yes
2.9	MOE	Yes	Yes	Yes	Yes
2.10	MOE	Yes	No	No	No
2.11	MOE	Yes	Yes	Yes	Yes
2.12	MOE	Yes	Yes	Yes	Yes
2.13	MOE	Yes	Yes	Yes	Yes
2.14	MOE	Yes	Yes	Yes	Yes
2.15	MOE	Yes	No	No	No
2.16	MOE	Yes	Yes	Yes	Yes
2.17	MOE	if appl.	if appl.	if appl.	if appl.
2.18	MOE	Yes	Yes	Yes	Yes
2.19	MOE	Yes	Yes	Yes	Yes
2.20	MOE	Yes	Yes	Yes	Yes
2.21	MOE	if appl.	if appl.	if appl.	if appl.
2.22	MOE	Yes	Yes	No	No
2.23	MOE	Yes	Yes	if appl.	if appl.
2.24	MOE	Yes	Yes	Yes	Yes
2.25	MOE	Yes	Yes	Yes	Yes
2.26	MOE	Yes	Yes	Yes	Yes
2.27	MOE	Yes	Yes	Yes	Yes
2.28	MOE	Yes	Yes	Yes	Yes
2.29	MOE	Yes	No	No	No
2.30	MOE	Yes	No	No	No
L2.1	MOE	if appl.	No	No	No
L2.2	MOE	if appl.	No	No	No
L2.3	MOE	if appl.	No	No	No
L2.4	MOE	if appl.	No	No	No
L2.5	MOE	if appl.	No	No	No
L2.6	MOE	if appl.	No	No	No
L2.7	MOE	if appl.	No	No	No
3.9	MOE	if appl.	if appl.	if appl.	if appl.
3.10	MOE	if appl.	if appl.	if appl.	if appl.

PARA	Comment	HANGAR	ENGINE	MECH	AVIONIC
			Workshop	Workshop	Workshop
3.11	MOE	if appl.	if appl.	if appl.	No
3.12	MOE	Yes	Yes	No	No
3.13	MOE	Yes	Yes	Yes	Yes
3.14	MOE	Yes	Yes	Yes	Yes
<u>145.A.70</u>		Yes	Yes	Yes	Yes
<u>145.A.75</u>		Yes	Yes	Yes	Yes
<u>145.A.80</u>		Yes	Yes	Yes	Yes
145.A.85		Yes	Yes	Yes	Yes
<u>145.A.95</u>		if appl.	if appl.	if appl.	if appl.
M.A.201(c)		if appl.	if appl.	if appl.	if appl.
M.A.403(b)		if appl.	No	No	No
ML.A.201(c)		if appl.	if appl.	if appl.	if appl.
ML.A.430(b)		if appl.	if appl.	if appl.	if appl.

Note 1: 'if appl.' means 'if applicable or relevant'.

Note 2: In the case of line stations, all line stations should be audited at the frequency agreed with the competent authority within the limits of <u>AMC 145.A.65(c)(1)</u>.

# GM1 145.A.65(c)(1) and 145.B.30 Safety and quality policy, maintenance procedures and quality system, and Continuation of an approval

ED Decision 2021/009/R

## THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) FOR PERFORMING REMOTE AUDITS

This GM provides technical guidance on the use of remote information and communication technologies (ICT) to support:

- competent authorities when overseeing regulated organisations;
- regulated organisations when conducting internal audits / monitoring compliance of their organisation with the relevant requirements, and when evaluating vendors, suppliers and subcontractors.

#### In the context of this GM:

- 'remote audit' means an audit that is performed with the use of any real-time video and audio communication tools instead of the physical presence of the auditor on-site; the specificities of each type of approval need to be considered in addition to the general overview (described below) when applying the 'remote audit' concept;
- 'auditing entity' means the competent authority or organisation that performs the remote audit;
- 'auditee' means the entity being audited/inspected (or the entity audited/inspected by the auditing entity via a remote audit);

It is the responsibility of the auditing entity to assess whether the use of remote ICT constitutes a suitable alternative to the physical presence of an auditor on-site in accordance with the applicable requirements.

#### The conduct of a remote audit

The auditing entity that decides to conduct a remote audit should describe the remote audit process in its documented procedures and should consider at least the following elements:

- The methodology for the use of remote ICT is sufficiently flexible and non-prescriptive in nature to optimise the conventional audit process.
- Adequate controls are defined and are in place to avoid abuses that could compromise the integrity of the audit process.
- Measures to ensure that the security and confidentiality are maintained throughout the audit activities (data protection and intellectual property of the organisation also need to be safeguarded).

Examples of the use of remote ICT during audits may include but are not limited to:

- meetings by means of teleconference facilities, including audio, video and data sharing;
- assessment of documents and records by means of remote access, in real time;
- recording, in real time during the process, of evidence to document the results of the audit, including non-conformities, by means of exchange of emails or documents, instant pictures, video or/and audio recordings;
- visual (livestream video) and audio access to facilities, stores, equipment, tools, processes, operations, etc.

An agreement between the auditing entity and the auditee should be established when planning a remote audit, which should include the following:

- determining the platform for hosting the audit;
- granting security and/or profile access to the auditor(s);
- testing platform compatibility between the auditing entity and the auditee prior to the audit;
- considering the use of webcams, cameras, drones, etc. when the physical evaluation of an event (product, part, process, etc.) is desired or is necessary;
- establishing an audit plan which will identify how remote ICT will be used and the extent of their use for the audit purposes to optimise their effectiveness and efficiency while maintaining the integrity of the audit process;
- if necessary, time zone acknowledgement and management to coordinate reasonable and mutually agreeable convening times;
- a documented statement of the auditee that they shall ensure full cooperation and provision of the actual and valid data as requested, including ensuring any supplier or subcontractor cooperation, if needed; and
- data protection aspects.

The following equipment and set-up elements should be considered:

the suitability of video resolution, fidelity, and field of view for the verification being conducted;

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- the need for multiple cameras, imaging systems, or microphones, and whether the person that performs the verification can switch between them, or direct them to be switched and has the possibility to stop the process, ask a question, move the equipment, etc.;
- the controllability of viewing direction, zoom, and lighting;
- the appropriateness of audio fidelity for the evaluation being conducted; and
- real-time and uninterrupted communication between the person(s) participating to the remote audit from both locations (on-site and remotely).

When using remote ICT, the auditing entity and the other persons involved (e.g. drone pilots, technical experts) should have the competence and ability to understand and utilise the remote ICT tools employed to achieve the desired results of the audit(s)/assessment(s). The auditing entity should also be aware of the risks and opportunities of the remote ICT used and the impacts they may have on the validity and objectivity of the information gathered.

Audit reports and related records should indicate the extent to which remote ICT have been used in conducting remote audits and the effectiveness of remote ICT in achieving the audit objectives, including any item that has not been able to be completely reviewed.

## AMC 145.A.65(c)(2) Safety and quality policy, maintenance procedures and quality system

ED Decision 2015/029/R

- 1. An essential element of the quality system is the quality feedback system.
- 2. The quality feedback system may not be contracted to outside persons. The principal function of the quality feedback system is to ensure that all findings resulting from the independent quality audits of the organisation are properly investigated and corrected in a timely manner and to enable the accountable manager to be kept informed of any safety issues and the extent of compliance with Part-145.
- 3. The independent quality audit reports referenced in AMC 145.A.65(c)(1) sub-paragraph 10 should be sent to the relevant department(s) for rectification action giving target rectification dates. Rectification dates should be discussed with such department(s) before the quality department or nominated quality auditor confirms such dates in the report. The relevant department(s) are required by 145.A.65(c)(2) to rectify findings and inform the quality department or nominated quality auditor of such rectification.
- 4. The accountable manager should hold regular meetings with staff to check progress on rectification except that in the large organisations such meetings may be delegated on a day to day basis to the quality manager subject to the accountable manager meeting at least twice per year with the senior staff involved to review the overall performance and receiving at least a half yearly summary report on findings of non-compliance.
- 5. All records pertaining to the independent quality audit and the quality feedback system should be retained for at least 2 years after the date of clearance of the finding to which they refer or for such periods as to support changes to the <u>AMC 145.A.65(c)(1)</u> sub-paragraph 9 audit time periods, whichever is the longer.



#### 145.A.70 Maintenance organisation exposition

Regulation (EU) 2020/270

- (a) 'Maintenance organisation exposition' means the document or documents that contain the material specifying the scope of work deemed to constitute approval and showing how the organisation intends to comply with this <u>Annex (Part-145)</u>. The organisation shall provide the competent authority with a maintenance organisation exposition, containing the following information:
  - A statement signed by the accountable manager confirming that the maintenance organisation exposition and any referenced associated manuals define the organisation's compliance with this <u>Annex (Part-145)</u> and will be complied with at all times. When the accountable manager is not the chief executive officer of the organisation then such chief executive officer shall countersign the statement;
  - 2. the organisation's safety and quality policy as specified by point 145.A.65;
  - 3. the title(s) and name(s) of the persons nominated under point <a href="145.A.30(b">145.A.30(b)</a>;
  - 4. the duties and responsibilities of the persons nominated under point <a href="145.A.30(b">145.A.30(b</a>), including matters on which they may deal directly with the competent authority on behalf of the organisation;
  - 5. an organisation chart showing associated chains of responsibility between the persons nominated under point 145.A.30(b);
  - 6. a list of certifying staff, support staff and, if applicable, airworthiness review staff, with their scope of approval.
  - 7. a general description of manpower resources;
  - 8. a general description of the facilities located at each address specified in the organisation's approval certificate;
  - 9. a specification of the organisation's scope of work relevant to the extent of approval;
  - 10. the notification procedure of point 145.A.85 for organisation changes;
  - 11. the maintenance organisation exposition amendment procedure;
  - 12. the procedures and quality system established by the organisation under points <a href="145.A.25">145.A.25</a> to <a href="145.A.90">145.A.90</a> of this Annex (Part-145) and any additional procedure followed in accordance with Annex I (Part-M) and Annex Vb (Part-ML) as applicable;
  - 13. a list of commercial operators, where applicable, to which the organisation provides an aircraft maintenance service;
  - 14. a list of subcontracted organisations, where applicable, as specified in point 145.A.75(b);
  - 15. a list of line stations, where applicable, as specified in point 145.A.75(d);
  - 16. a list of contracted organisations, where applicable.
- (b) The exposition shall be amended as necessary to remain an up-to-date description of the organisation. The exposition and any subsequent amendment shall be approved by the competent authority.
- (c) Notwithstanding point (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

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## AMC 145.A.70(a) Maintenance organisation exposition

ED Decision 2020/002/R

The following information should be included in the maintenance organisation exposition:

The information specified in 145.A.70(a) subparagraphs (6) and (12) to (16) inclusive, whilst a part of the maintenance organisation exposition, may be kept as separate documents or on separate electronic data files subject to the management part of said exposition containing a clear cross-reference to such documents or electronic data files.

The exposition should contain the information, as applicable, specified in this AMC. The information may be presented in any subject order as long as all applicable subjects are covered. Where an organisation uses a different format, for example, to allow the exposition to serve for more than one approval, then the exposition should contain a cross-reference Annex using this list as an index with an explanation as to where the subject matter can be found in the exposition.

The exposition should contain information, as applicable, on how the maintenance organisation complies with Critical Design Configuration Control Limitations' (CDCCL) instructions.

Small maintenance organisations may combine the various items to form a simple exposition more relevant to their needs.

The operator may use electronic data processing (EDP) for publication of the maintenance organisation exposition. The maintenance organisation exposition should be made available to the approving competent authority in a form acceptable to the competent authority. Attention should be paid to the compatibility of EDP publication systems with the necessary dissemination of the maintenance organisation exposition, both internally and externally.

#### PART 0 GENERAL ORGANISATION (Operators within the European Union)

This section is reserved for those maintenance organisations approved under <u>Part-145</u> who are also operators within the European Union.

#### **PART 1 MANAGEMENT**

- 1.1 Corporate commitment by the accountable manager
- 1.2 Safety and quality policy
- 1.3 Management personnel
- 1.4 Duties and responsibilities of the management personnel
- 1.5 Management organisation chart
- 1.6 List of certifying staff, support staff and airworthiness review staff
- 1.7 Manpower resources
- 1.8 General description of the facilities at each address intended to be approved
- 1.9 Organisations intended scope of work
- 1.10 Notification procedure to the competent authority regarding changes to the organisation's activities/approval/location/personnel
- 1.11 Exposition amendment procedures including, if applicable, delegated procedures

#### **PART 2 MAINTENANCE PROCEDURES**

- 2.1 Supplier evaluation and subcontract control procedure
- 2.2 Acceptance/inspection of aircraft components and material from outside contractors
- 2.3 Storage, tagging and release of aircraft components and material to aircraft maintenance
- 2.4 Acceptance of tools and equipment
- 2.5 Calibration of tools and equipment
- 2.6 Use of tooling and equipment by staff (including alternate tools)
- 2.7 Cleanliness standards of maintenance facilities
- 2.8 Maintenance instructions and relationship to aircraft/aircraft component manufacturers' instructions including updating and availability to staff
- 2.9 Repair procedure
- 2.10 Aircraft maintenance programme compliance
- 2.11 Airworthiness directives procedure
- 2.12 Optional modification procedure
- 2.13 Maintenance documentation in use and its completion
- 2.14 Technical record control
- 2.15 Rectification of defects arising during base maintenance
- 2.16 Release to service procedure
- 2.17 Records for the operator
- 2.18 Reporting of defects to the competent authority/operator/manufacturer
- 2.19 Return of defective aircraft components to store
- 2.20 Defective components to outside contractors
- 2.21 Control of computer maintenance record systems
- 2.22 Control of manhour planning versus scheduled maintenance work
- 2.23 Critical maintenance tasks and error-capturing methods
- 2.24 Reference to specific maintenance procedures such as -
  - Engine running procedures
  - Aircraft pressure run procedures
  - Aircraft towing procedures
  - Aircraft taxiing procedures
- 2.25 Procedures to detect and rectify maintenance errors.
- 2.26 Shift/task handover procedures
- 2.27 Procedures for notification of maintenance data inaccuracies and ambiguities, to the type certificate holder
- 2.28 Production planning procedures

- 2.29 Airworthiness review procedures and records
- 2.30 [Reserved]

#### PART L2 ADDITIONAL LINE MAINTENANCE PROCEDURES

- L2.1 Line maintenance control of aircraft components, tools, equipment, etc.
- L2.2 Line maintenance procedures related to servicing/fuelling/de-icing, including inspection for/removal of de-icing/anti-icing fluid residues, etc.
- L2.3 Line maintenance control of defects and repetitive defects
- L2.4 Line procedure for completion of technical log
- L2.5 Line procedure for pooled parts and loan parts
- L2.6 Line procedure for return of defective parts removed from aircraft
- L2.7 Line procedure for critical maintenance tasks and error-capturing methods

#### **PART 3 QUALITY SYSTEM PROCEDURES**

- 3.1 Quality audit of organisation procedures
- 3.2 Quality audit of aircraft
- 3.3 Quality audit remedial action procedure
- 3.4 Certifying staff and support staff qualification and training procedures
- 3.5 Certifying staff and support staff records
- 3.6 Quality audit personnel
- 3.7 Qualifying inspectors
- 3.8 Qualifying mechanics
- 3.9 Aircraft or aircraft component maintenance tasks exemption process control
- 3.10 Concession control for deviation from organisations' procedures
- 3.11 Qualification procedure for specialised activities such as NDT welding, etc.
- 3.12 Control of manufacturers' and other maintenance working teams
- 3.13 Human factors training procedure
- 3.14 Competence assessment of personnel
- 3.15 Training procedures for on-the-job training as per <u>Section 6 of Appendix III to Part-66</u> (limited to the case where the competent authority for the <u>Part-145</u> approval and for the <u>Part-66</u> licence is the same).
- 3.16 Procedure for the issue of a recommendation to the competent authority for the issue of a <u>Part-66</u> licence in accordance with <u>66.B.105</u> (limited to the case where the competent authority for the <u>Part-145</u> approval and for the <u>Part-66</u> licence is the same).

#### PART 4

4.1 Contracting operators

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- 4.2 Operator procedures and paperwork
- 4.3 Operator record completion

#### PART 5

- 5.1 Sample of documents
- 5.2 List of Subcontractors as per 145.A.75(b)
- 5.3 List of Line maintenance locations as per 145.A.75(d)
- 5.4 List of contracted organisations as per 145.A.70(a)(16)

#### PART 6 OPERATORS MAINTENANCE PROCEDURES

This section is reserved for those maintenance organisations approved under <u>Part-145</u> who are also operators.

#### PART 7 FAA SUPPLEMENTARY PROCEDURES FOR A FAR PART-145 REPAIR STATION

This section is reserved for those maintenance organisations approved under <u>Part-145</u> who are also certificated as a FAA FAR <u>Part-145</u> repair station.

The contents of this Part should be based on the Maintenance Annex Guidance (MAG) issued by EASA and the FAA following the agreement between the United States of America and the European Union on cooperation in the regulation of civil aviation safety.

## PART 8 TRANSPORT CANADA CIVIL AVIATION (TCCA) SUPPLEMENTARY PROCEDURES FOR A CAR 573 MAINTENANCE ORGANISATION

This section is reserved for those <u>Part-145</u> approved maintenance organisations holding a CAR 573 approval.

The content of this Part should be based on the Maintenance Annex Guidance (MAG) issued by EASA and the TCCA following the agreement on civil aviation safety between the European Union and Canada.

### GM 145.A.70(a) Maintenance organisation exposition

D Decision 2020/002/R

- 1. The purpose of the maintenance organisation exposition (MOE) is to set forth the procedures, means and methods of the organisation.
- 2. Compliance with its contents will assure compliance with the requirements of <u>Part-145</u>, which is a prerequisite to obtaining and retaining a maintenance organisation approval certificate.
- 3. 145.A.70(a)(1) to (a)(11) constitutes the 'management' part of the MOE and therefore could be produced as one document and made available to the person(s) specified under 145.A.30(b) who should be reasonably familiar with its contents. The 145.A.70(a)(6) list of certifying staff, B1 and B2 support staff and airworthiness review staff may be produced as a separate document.



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- 4. 4. <a href="https://doi.org/10.10">145.A.70(a)(12)</a> constitutes the working procedures of the organisation and therefore as stated in the requirement may be produced as any number of separate procedures manuals. It should be remembered that these documents should be cross-referenced from the management MOE.
- 5. Personnel are expected to be familiar with those parts of the manuals that are relevant to the maintenance work they carry out.
- 6. The organisation should specify in the MOE who should amend the manual particularly in the case where there are several parts.
- 7. The quality manager should be responsible for monitoring the amendment of the MOE, unless otherwise agreed by the competent authority, including associated procedures manuals and submission of the proposed amendments to the competent authority. However the competent authority may agree via a procedure stated in the amendment section of the MOE that some defined class of amendments may be incorporated without prior approval by the competent authority.
- 8. The MOE should cover four main parts:
  - (a) The management MOE covering the parts specified earlier.
  - (b) The maintenance procedures covering all aspects of how aircraft components may be accepted from outside sources and how aircraft will be maintained to the required standard.
  - (c) The quality system procedures including the methods of qualifying mechanics, inspection, certifying staff and quality audit personnel.
  - (d) Contracting operator procedures and paperwork.
- 9. The accountable manager's exposition statement as specified under <a href="145.A.70(a)(1)">145.A.70(a)(1)</a> should embrace the intent of the following paragraph and in fact this statement may be used without amendment. Any modification to the statement should not alter the intent.

This exposition and any associated referenced manuals define the organisation and procedures upon which the (competent authority\*) <u>Part-145</u> approval is based as required by <u>145.A.70</u>. These procedures are approved by the undersigned and should be complied with, as applicable, when work orders are being progressed under the terms of the <u>Part-145</u> approval.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the (competent authority\*) from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the (competent authority\*) will approve this organisation whilst the (competent authority\*) is satisfied that the procedures are being followed and work standards maintained. It is further understood that the (competent authority\*) reserves the right to suspend, limit or revoke the approval of the organisation if the (competent authority\*) has evidence that procedures are not followed or standards not upheld.

Signed
Dated
Accountable Manager and (quote position)
or and on behalf of (quote organisation's name)

Note: Where it states ('competent authority\*') please insert the actual name of the competent authority, for example, EASA, CAA-NL, LBA, DGAC, CAA, etc.

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Whenever the accountable manager changes, it is important to ensure that the new accountable manager signs the paragraph 9 statement at the earliest opportunity.

Failure to carry out this action could invalidate the <a href="Part-145">Part-145</a> approval.

When an organisation is approved against any other Part containing a requirement for an exposition, a supplement covering the differences will suffice to meet the requirements except that the supplement should have an index showing where those parts missing from the supplement are covered.

### 145.A.75 Privileges of the organisation

Regulation (EU) 2019/1383

In accordance with the exposition, the organisation shall be entitled to carry out the following tasks:

- (a) Maintain any aircraft and/or component for which it is approved at the locations identified in the approval certificate and in the exposition;
- (b) Arrange for maintenance of any aircraft or component for which it is approved at another organisation that is working under the quality system of the organisation. This refers to work being carried out by an organisation not itself appropriately approved to carry out such maintenance under this Part and is limited to the work scope permitted under procedures laid down in point <a href="145.A.65(b)">145.A.65(b)</a>. This work scope shall not include a base maintenance check of an aircraft or a complete workshop maintenance check or overhaul of an engine or engine module;
- (c) Maintain any aircraft or any component for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance, subject to the conditions specified in the exposition;
- (d) Maintain any aircraft and/or component for which it is approved at a location identified as a line maintenance location capable of supporting minor maintenance and only if the organisation exposition both permits such activity and lists such locations;
- (e) Issue certificates of release to service in respect of completion of maintenance in accordance with point 145.A.50;
- (f) If specifically approved to do so for aircraft covered by Annex Vb (Part-ML), it may perform airworthiness reviews and issue the corresponding airworthiness review certificate in accordance with the conditions specified in point <a href="ML.A.903">ML.A.903</a> of Annex Vb (Part-ML) to this Regulation.

## AMC 145.A.75(b) Privileges of the organisation

ED Decision 2015/029/R

1. Working under the quality system of an organisation appropriately approved under <a href="Part-145">Part-145</a> (sub contracting) refers to the case of one organisation, not itself appropriately approved to <a href="Part-145">Part-145</a> that carries out aircraft line maintenance or minor engine maintenance or maintenance of other aircraft components or a specialised service as a subcontractor for an organisation appropriately approved under <a href="Part-145">Part-145</a>. To be appropriately approved to subcontract the organisation should have a procedure for the control of such subcontractors as described below. Any approved maintenance organisation that carries out maintenance for another approved maintenance organisation within its own approval scope is not considered to be subcontracting for the purpose of this paragraph.

Note: For those organisations approved under <u>Part-145</u> that are also certificated by the FAA under FAR Part-145 it should be noted that FAR Part-145 is more restrictive in respect of maintenance activities that can be contracted or sub-contracted to another maintenance organisation. It is therefore recommended that any listing of contracted or sub-contracted maintenance organisations should identify which meet the <u>Part-145</u> criteria and which meet the FAR Part-145 criteria.

- 2. Maintenance of engines or engine modules other than a complete workshop maintenance check or overhaul is intended to mean any maintenance that can be carried out without disassembly of the core engine or, in the case of modular engines, without disassembly of any core module.
- 3. FUNDAMENTALS OF SUB-CONTRACTING UNDER PART-145
  - 3.1. The fundamental reasons for allowing an organisation approved under <u>Part-145</u> to subcontract certain maintenance tasks are:
    - (a) To permit the acceptance of specialised maintenance services, such as, but not limited to, plating, heat treatment, plasma spray, fabrication of specified parts for minor repairs / modifications, etc., without the need for direct approval by the competent authority in such cases.
    - (b) To permit the acceptance of aircraft maintenance up to but not including a base maintenance check as specified in 145.A.75(b) by organisations not appropriately approved under Part-145 when it is unrealistic to expect direct approval by the competent authority. The competent authority will determine when it is unrealistic but in general it is considered unrealistic if only one or two organisations intend to use the sub-contract organisation.
    - (c) To permit the acceptance of component maintenance.
    - (d) To permit the acceptance of engine maintenance up to but not including a workshop maintenance check or overhaul of an engine or engine module as specified in 145.A.75(b) by organisations not appropriately approved under Part-145 when it is unrealistic to expect direct approval by the competent authority. The determination of unrealistic is as per sub-paragraph (b).
  - 3.2. When maintenance is carried out under the sub-contract control system it means that for the duration of such maintenance, the <a href="Part-145">Part-145</a> approval has been temporarily extended to include the sub-contractor. It therefore follows that those parts of the sub-contractor's facilities personnel and procedures involved with the maintenance organisation's products undergoing maintenance should meet <a href="Part-145">Part-145</a> requirements for the duration of that maintenance and it remains the organisation's responsibility to ensure such requirements are satisfied.
  - 3.3. For the criteria specified in sub-paragraph 3.1 the organisation is not required to have complete facilities for maintenance that it needs to sub-contract but it should have its own expertise to determine that the sub-contractor meets the necessary standards. However an organisation cannot be approved unless it has the in-house facilities, procedures and expertise to carry out the majority of maintenance for which it wishes to be approved in terms of the number of class ratings.
  - 3.4. The organisation may find it necessary to include several specialist sub-contractors to enable it to be approved to completely certify the release to service of a particular product. Examples could be specialist welding, electro-plating, painting etc. To authorise

- the use of such subcontractors, the competent authority will need to be satisfied that the organisation has the necessary expertise and procedures to control such sub-contractors.
- 3.5. An organisation working outside the scope of its approval schedule is deemed to be not approved. Such an organisation may in this circumstance operate only under the subcontract control of another organisation approved under Part-145.
- 3.6. Authorisation to sub-contract is indicated by the competent authority accepting the maintenance organisation exposition containing a specific procedure on the control of sub-contractors.
- 4. PRINCIPAL PART-145 PROCEDURES FOR THE CONTROL OF SUB-CONTRACTORS NOT APPROVED UNDER PART-145
  - 4.1. A pre-audit procedure should be established whereby the maintenance organisations' subcontract control section, which may also be the <a href="145.A.65(c">145.A.65(c</a>) quality system independent audit section, should audit a prospective subcontractor to determine whether those services of the subcontractor that it wishes to use meets the intent of Part-145.
  - 4.2. The organisation approved under Part-145 needs to assess to what extent it will use the sub-contractor's facilities. As a general rule the organisation should require its own paperwork, approved data and material/spare parts to be used, but it could permit the use of tools, equipment and personnel from the sub-contractor as long as such tools, equipment and personnel meet the requirement of Part-145. In the case of sub-contractors who provide specialised services it may for practical reasons be necessary to use their specialised services personnel, approved data and material subject to acceptance by the organisation approved under Part-145.
  - 4.3. Unless the sub-contracted maintenance work can be fully inspected on receipt by the organisation approved under Part-145 it will be necessary for such organisation to supervise the inspection and release from the sub-contractor. Such activities should be fully described in the organisation procedure. The organisation will need to consider whether to use its own staff or authorise the sub-contractor's staff.
  - 4.4. The certificate of release to service may be issued either at the sub-contractor or at the organisation facility by staff issued a certification authorisation in accordance with <a href="145.A.30">145.A.30</a> as appropriate, by the organisation approved under Part-145. Such staff would normally come from the organisation approved under Part-145 but may otherwise be a person from the sub-contractor who meets the approved maintenance organisation certifying staff standard which itself is approved by the competent authority via the maintenance organisation exposition. The certificate of release to service and the <a href="EASAForm 1">EASAFORM 1</a> will always be issued under the maintenance organisation approval reference.
  - 4.5. The sub-contract control procedure will need to record audits of the sub-contractor, to have a corrective action follow up plan and to know when sub-contractors are being used. The procedure should include a clear revocation process for sub-contractors who do not meet the Part-145 approved maintenance organisation's requirements.
  - 4.6. The Part-145 quality audit staff will need to audit the sub-contract control section and sample audit sub-contractors unless this task is already carried out by the quality audit staff as stated in sub-paragraph 4.1.

Annex II (Part-145)
SECTION A — TECHNICAL
REQUIREMENTS

4.7. The contract between the Part-145 approved maintenance organisation and the subcontractor should contain a provision for the competent authority and EASA standardisation team staff to have right of access to the sub-contractor.

## 145.A.80 Limitations on the organisation

Regulation (EU) No 1321/2014

The organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data and certifying staff are available.

#### AMC 145.A.80 Limitations on the organisation

ED Decision 2015/029/R

This paragraph is intended to cover the situation where the larger organisation may temporarily not hold all the necessary tools, equipment etc., for an aircraft type or variant specified in the organisation's approval. This paragraph means that the competent authority need not amend the approval to delete the aircraft type or variants on the basis that it is a temporary situation and there is a commitment from the organisation to re-acquire tools, equipment etc. before maintenance on the type may recommence.

#### 145.A.85 Changes to the organisation

Regulation (EU) 2015/1088

The organisation shall notify the competent authority of any proposal to carry out any of the following changes before such changes take place to enable the competent authority to determine continued compliance with this Part and to amend, if necessary, the approval certificate, except that in the case of proposed changes in personnel not known to the management beforehand, these changes must be notified at the earliest opportunity:

- 1. the name of the organisation;
- 2. the main location of the organisation;
- 3. additional locations of the organisation;
- 4. the accountable manager;
- 5. any of the persons nominated under point 145.A.30(b);
- 6. the facilities, equipment, tools, material, procedures, work scope, certifying staff and airworthiness review staff that could affect the approval.

## 145.A.90 Continued validity

Regulation (EU) No 1321/2014

- (a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:
  - 1. the organisation remaining in compliance with <u>Annex II (Part-145)</u>, in accordance with the provisions related to the handling of findings as specified under point <u>145.B.50</u>; and
  - 2. the competent authority being granted access to the organisation to determine continued compliance with this Part; and
  - 3. the certificate not being surrendered or revoked.
- (b) Upon surrender or revocation, the approval shall be returned to the competent authority.

Annex II (Part-145)
SECTION A — TECHNICAL
REQUIREMENTS

## 145.A.95 Findings

Regulation (EU) 2019/1383

- (a) A level 1 finding is any finding of significant non-compliance with the requirements of this Annex which lowers the safety standard and seriously endangers flight safety.
- (b) A level 2 finding is any finding of non-compliance with the requirements of this Annex which may lower the safety standard and may endanger flight safety.
- (c) After receipt of notification of findings according to point <u>145.B.50</u>, the holder of the maintenance organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.



#### SECTION B — PROCEDURE FOR COMPETENT AUTHORITIES

## 145.B.01 Scope

Regulation (EU) No 1321/2014

This section establishes the administrative procedures which the competent authority shall follow when exercising its tasks and responsibilities regarding issuance, continuation, change, suspension or revocation of approvals of maintenance organisations under this <u>Annex (Part-145)</u>.

## 145.B.10 Competent authority

Regulation (EU) No 1321/2014

#### 1. General

The Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of a maintenance approval. This competent authority shall establish documented procedures and an organisational structure.

#### 2. Resources

The number of staff must be appropriate to carry out the requirements as detailed in this section.

#### Qualification and training

All staff involved in approvals under this Annex (Part-145) must:

- (a) be appropriately qualified and have all necessary knowledge, experience and training to perform their allocated tasks.
- (b) have received training/continuation training on this <u>Annex (Part-145)</u> where relevant, including its intended meaning and standard.

#### 4. Procedures

The competent authority shall establish procedures detailing how compliance with this Section B is accomplished.

The procedures must be reviewed and amended to ensure continued compliance.

## AMC 145.B.10(1) Competent authority - General

ED Decision 2015/029/R

- In deciding upon the required organisational structure, the competent authority should review
  the number of certificates to be issued, the number and size of potential <u>Part-145</u> approved
  maintenance organisations within that Member State, as well as the level of civil aviation
  activity, number and complexity of aircraft and the size of the Member State's aviation industry.
- 2. The competent authority should retain effective control of important surveillance functions and not delegate them in such a way that <a href="Part-145">Part-145</a> organisations, in effect, regulate themselves in airworthiness matters.
- 3. The set-up of the organisational structure should ensure that the various tasks and obligations of the competent authority are not relying on individuals. That means that a continuing and undisturbed fulfilment of these tasks and obligations of the competent authority should also be guaranteed in case of illness, accident or leave of individual employees.



SECTION B — PROCEDURE FOR COMPETENT AUTHORITIES

## AMC 145.B.10(3) Competent authority – Qualification and training

ED Decision 2015/029/R

- 1. Competent authority surveyors should have:
  - 1.1. practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - 1.2. comprehensive knowledge of:
    - (a) relevant parts of implementing rules, certification specifications and guidance material;
    - (b) the competent authority's procedures;
    - (c) the rights and obligations of a surveyor;
    - (d) quality systems;
    - (e) continuing airworthiness management;
    - (f) operational procedures when affecting the continuing airworthiness management of the aircraft or the maintenance.
  - 1.3. training on auditing techniques.
  - 1.4. five years relevant work experience to be allowed to work as a surveyor independently. This may include experience gained during training to obtain the 1.5 qualification.
  - 1.5. a relevant engineering degree or an aircraft maintenance technician qualification with additional education. 'relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components.
  - 1.6. knowledge of maintenance standards, including Fuel Tank Safety (FTS) training as described in <u>Appendix IV to AMC 145.A.30(e) and 145.B.10(3)</u>.
- 2. In addition to technical competency, surveyors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.
- 3. A programme for continuation training should be developed ensuring that the surveyors remain competent to perform their allocated tasks.

## AMC 145.B.10(4) Competent authority - Procedures

FD Decision 2015/029/R

The documented procedures should contain the following information:

- (a) The Member State's designation of the competent authority(ies).
- (b) The title(s) and name(s) of the manager(s) of the competent authority and their duties and responsibilities.
- (c) Organisation chart(s) showing associated chains of responsibility of the senior persons.
- (d) A procedure defining the qualifications for staff together with a list of staff authorised to sign certificates.
- (e) A general description of the facilities.
- (f) Procedures specifying how the competent authority(ies) ensure(s) compliance with Part-145.



### 145.B.15 Organisations located in several Member States

Regulation (EU) No 1321/2014

Where maintenance facilities are located in more than one Member State the investigation and continued oversight of the approval must be carried out in conjunction with the competent authorities from the Member States in whose territory the other maintenance facilities are located.

## 145.B.20 Initial approval

Regulation (EU) No 1321/2014

- 1. Provided the requirements of points <a href="145.A.30(a">145.A.30(a</a>) and (b) are complied with, the competent authority shall formally indicate its acceptance of the personnel, specified in points <a href="145.A.30(a">145.A.30(a</a>) and (b), to the applicant in writing.
- 2. The competent authority shall verify that the procedures specified in the maintenance organisation exposition comply with this <a href="Annex (Part-145">Annex (Part-145)</a> and verify that the accountable manager signs the commitment statement.
- 3. The competent authority shall verify that the organisation is in compliance with the requirements of this <u>Annex (Part-145)</u>.
- 4. A meeting with the accountable manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the exposition commitment of the organisation to compliance with the procedures specified in the exposition.
- 5. All findings must be confirmed in writing to the organisation.
- 6. The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations
- 7. For initial approval all findings must be corrected before the approval can be issued.

## AMC 145.B.20(1) Initial approval

ED Decision 2015/029/R

- 1. Formally indicated by the competent authority in writing means that the <u>EASA Form 4</u> should be used for this activity. With the exception of the accountable manager, an <u>EASA Form 4</u> should be completed for each person nominated to hold a position as required by <u>145.A.30(b)</u>.
- 2. Formal indication of acceptance should be by use of the <u>EASA Form 4</u> or in the case of the Accountable Manager via approval of the Maintenance Organisation Exposition containing the Accountable Managers commitment statement.
- 3. The competent authority may reject an accountable manager where there is clear evidence that they previously held a senior position in any JAR/Part approved Organisation and abused that position by not complying with the particular JAR/Part requirements.

## AMC 145.B.20(2) Initial approval

ED Decision 2015/029/R

Verification that the organisation complies with the exposition procedures should be established by the competent authority approving the maintenance organisation exposition.



SECTION B — PROCEDURE FOR COMPETENT AUTHORITIES

## AMC 145.B.20(3) Initial approval

ED Decision 2015/029/R

- 1. The competent authority should determine by whom, and how the audit shall be conducted. For example, for a large organisation, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single man audits are most appropriate for the particular situation.
- 2. It is recommended that the audit is carried out on a product line type basis in that, for example, in the case of an organisation with Airbus A310 and A320 ratings, the audit be concentrated on one type only for a full compliance check and dependent upon the result, the second type may only require a sample check against those activities seen to be weak on compliance for the first type.
- 3. The competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the organisation. Normally this is the quality manager. The reason for being accompanied is to ensure the organisation is fully aware of any findings during the audit.
- 4. The auditing surveyor should inform the senior technical member of the organisation at the end of the audit visit on all findings made during the audit.

#### AMC 145.B.20(5) Initial approval

ED Decision 2015/029/R

- 1. The audit report form should be the <u>EASA Form 6</u>.
- A quality review of the <u>EASA Form 6</u> audit report form should be carried out by a competent independent person nominated by the competent authority. The review should take into account the relevant paragraphs of <u>Part-145</u>, the categorisation of finding levels and the closure action taken. Satisfactory review of the audit form should be indicated by a signature on the audit form.

## AMC 145.B.20(6) Initial approval

ED Decision 2015/029/R

- 1. The reports should include the date each finding was cleared together with reference to the competent authority report or letter that confirmed the clearance.
- 2. There may be occasions when the competent authority surveyor may find situations in the applicant's organisation on which he/she is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time and the fact that the situation will be reviewed within the competent authority before a decision is made.
  - If the decision is a finding of being in compliance then a verbal confirmation to the organisation will suffice.
- 3. Findings should be recorded on the audit report form with a provisional categorisation as a level 1 or 2. Subsequent to the audit visit that identified the particular findings, the competent authority should review the provisional finding levels, adjusting them if necessary and change the categorisation from provisional to confirmed.
- 4. All findings should be confirmed in writing to the applicant organisation within 2 weeks of the audit visit.



#### 145.B.25 Issue of approval

Regulation (EU) No 1321/2014

- 1. The competent authority shall formally approve the exposition and issue to the applicant a Form 3 approval certificate, which includes the approval ratings. The competent authority shall only issue a certificate when the organisation is in compliance with this <a href="Annex (Part-145">Annex (Part-145)</a>.
- 2. The competent authority shall indicate the conditions of the approval on the Form 3 approval certificate.
- 3. The reference number shall be included on the Form 3 approval certificate in a manner specified by the Agency.

## AMC 145.B.25(1) Issue of approval

ED Decision 2015/029/R

- 1. For approvals involving more than one Member State, the approval should be granted in conjunction with the Member State in whose territory the other maintenance facilities are located. For practical reasons it is recommended that the initial approval should be granted on the basis of a joint audit visit by the approving Member State and the Member State in whose territory the facility is located. Audits related to the continuation of the approval should be delegated to the Member State in whose territory the facility is located with the audit form and recommendation submitted to the approving Member State.
- 2. The approval should be based only upon the organisational capability (including any associated sub-contractors) relative to <a href="Part-145">Part-145</a> and not limited by reference to EASA/national type certificated products.
  - For example, if the organisation is capable of maintaining within the limitation of <u>Part-145</u> the Boeing 737-200 series aircraft the approval schedule should state A1 Boeing 737-200 series and not Boeing 737-2H6 which is a particular airline designator for one of many -200 series.
- 3. The competent authority should indicate approval of the exposition in writing.

## AMC 145.B.25(2) Issue of approval

ED Decision 2015/029/R

The validity of the Part-145 approval should be of unlimited duration.

## AMC 145.B.25(3) Issue of approval

ED Decision 2015/029/R

The numeric sequence should be unique to the particular approved maintenance organisation.



### 145.B.30 Continuation of an approval

Regulation (EU) No 1321/2014

The continuation of an approval shall be monitored in accordance with the applicable 'initial approval' process under point 145.B.20. In addition:

- 1. The competent authority shall keep and update a program listing the approved maintenance organisations under its supervision, the dates when audit visits are due and when such visits were carried out.
- 2. Each organisation must be completely reviewed for compliance with this <u>Annex (Part-145)</u> at periods not exceeding 24 months.
- 3. A meeting with the accountable manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

## AMC 145.B.30(1) Continuation of an approval

ED Decision 2015/029/R

Credit may be claimed by the competent authority surveyor(s) for specific item audits completed during the preceding 23 month period subject to four conditions:

- the specific item audit should be the same as that required by Part-145 latest amendment, and
- there should be satisfactory evidence on record that such specific item audits were carried out and that all corrective actions have been taken, and
- the competent authority surveyor(s) should be satisfied that there is no reason to believe standards have deteriorated in respect of those specific item audits being granted a back credit, and
- the specific item audit being granted a back credit should be audited not later than 24 months after the last audit of the item.

## AMC 145.B.30(2) Continuation of an approval

ED Decision 2015/029/R

- 1. Where the competent authority has decided that a series of audit visits are necessary to arrive at a complete audit of an organisation, the programme should indicate which aspects of the approval will be covered on each visit.
- 2. It is recommended that part of an audit concentrates on two ongoing aspects of the <a href="Part-145">Part-145</a> approval, namely the organisation's internal self-monitoring quality reports produced by the quality monitoring personnel to determine if the organisation is identifying and correcting its problems and secondly the number of concessions granted by the quality manager.
- 3. At the successful conclusion of the audit including approval of the exposition, an audit report form should be completed by the auditing surveyor including all recorded findings, closure actions and recommendation. An <u>EASA Form 6</u> should be used for this activity.
- 4. The accountable manager should be seen at least once every 24 months to ensure he/she fully understands the significance of the approval.
- 5. In the case of line stations the competent authority can adopt a sampling programme based upon number of line stations and complexity.



#### 145.B.35 Changes

Regulation (EU) No 1321/2014

- 1. The competent authority shall receive notification from the organisation of any proposed change as listed in point 145.A.85.
  - The competent authority shall comply with the applicable elements of the initial process points for any change to the organisation.
- 2. The competent authority may prescribe the conditions under which organisation may operate during such changes unless it determines that the approval should be suspended.

#### AMC 145.B.35 Changes

ED Decision 2015/029/R

The competent authority should have adequate control over any changes to the management personnel specified in  $\underline{145.A.30(a)}$  and  $\underline{(b)}$  and such changes in personnel will require an amendment to the exposition.

## **AMC 145.B.35(1) Changes**

ED Decision 2015/029/R

The applicable part(s) of the EASA Form 6 should be used for the changes to the Part-145 approval.

### AMC 145.B.35(2) Changes to the organisation

ED Decision 2015/029/R

The primary purpose of this paragraph is to enable the organisation to remain approved if agreed by the competent authority during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases.

## 145.B.40 Changes to the Maintenance Organisation Exposition

Regulation (EU) No 1321/2014

For any change to the Maintenance Organisation Exposition (MOE):

- 1. In the case of direct approval of the changes in accordance with point <a href="145.A.70(b">145.A.70(b</a>), the competent authority shall verify that the procedures specified in the exposition are in compliance with <a href="Annex II (Part-145">Annex II (Part-145)</a> before formally notifying the approved organisation of the approval.
- 2. In the case an indirect approval procedure is used for the approval of the changes in accordance with point 145.A.70(c), the competent authority shall ensure (i) that the changes remain minor and (ii) that it has an adequate control over the approval of the changes to ensure they remain in compliance with the requirements of Annex II (Part-145).

#### **AMC 145.B.40 MOE amendments**

ED Decision 2015/029/R

1. It is recommended that a simple exposition status sheet is maintained which contains information on when an amendment was received by the competent authority and when it was approved.

Annex II (Part-145)

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COMPETENT AUTHORITIES

- 2. The competent authority may define some class of amendments to the exposition which may be incorporated without prior authority approval. In this case a procedure should be stated in the amendment section of the MOE.
  - The exposition chapter dealing with scope of work/approval should not be subject to this procedure.
- 3. The organisation should submit each exposition amendment to the competent authority whether it is an amendment for approval or a delegated approval amendment. Where the amendment requires approval by the competent authority, the competent authority when satisfied, should indicate its approval in writing. Where the amendment has been submitted under the delegated approval procedure the competent authority should acknowledge receipt in writing.

## 145.B.45 Revocation, suspension and limitation of approval

Regulation (EU) No 1321/2014

The competent authority shall:

- (a) suspend an approval on reasonable grounds in the case of potential safety threat; or
- (b) suspend, revoke or limit an approval pursuant to point <u>145.B.50</u>.

### 145.B.50 Findings

Regulation (EU) No 1321/2014

- (a) When during audits or by other means evidence is found showing non-compliance with the requirements of this <a href="Annex (Part-145">Annex (Part-145)</a>, the competent authority shall take the following actions:
  - For level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organisation approval, until successful corrective action has been taken by the organisation.
  - 2. For level 2 findings, the corrective action period granted by the competent authority must be appropriate to the nature of the finding but in any case initially must not be more than three months. In certain circumstances and subject to the nature of the finding the competent authority may extend the three month period subject to a satisfactory corrective action plan agreed by the competent authority.
- (b) Action shall be taken by the competent authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the competent authority

## AMC 145.B.50(a) Findings

ED Decision 2015/029/R

In practical terms a level 1 finding is where a competent authority finds a significant non-compliance with <u>Part-145</u>.

The following are example level 1 findings:

 Failure to gain access to the organisation during normal operating hours of the organisation in accordance with 145.A.90(2) after two written requests.

Annex II (Part-145)

SECTION B — PROCEDURE FOR COMPETENT AUTHORITIES

 If the calibration control of equipment as specified in <u>145.A.40(b)</u> had previously broken down on a particular type product line such that most 'calibrated' equipment was suspect from that time then that would be a level 1 finding.

A complete product line is defined as all the aircraft, engine or component of a particular type.

For a level 1 finding it may be necessary for the competent authority to ensure that further maintenance and re-certification of all affected products is accomplished, dependent upon the nature of the finding.

In practical terms where a competent authority surveyor finds a non-compliance with <u>Part-145</u> against one product, it is deemed to be a level 2 finding.

The following are example level 2 findings:

- One time use of a component without any serviceable tag.
- The training documents of the certifying staff are not completed.

#### AMC 145.B.50(b) Findings

ED Decision 2015/029/R

Where the organisation has not implemented the necessary corrective action within that period it may be appropriate to grant a further period of up to three months, subject to the competent authority notifying the accountable manager. In exceptional circumstances and subject to a realistic action plan being in place, the competent authority may specifically vary the maximum 6 month corrective action period. However, in granting such a change the past performance of the organisation should be considered.

## 145.B.55 Record-keeping

Regulation (EU) No 1321/2014

- 1. The competent authority shall establish a system of record-keeping with minimum retention criteria that allows adequate traceability of the process to issue, continue, change, suspend or revoke each individual organisation approval.
- 2. The records shall include as a minimum:
  - (a) the application for an organisation approval, including the continuation thereof.
  - (b) the competent authority continued oversight program including all audit records.
  - (c) the organisation approval certificate including any change thereto.
  - (d) a copy of the audit program listing the dates when audits are due and when audits were carried out.
  - (e) copies of all formal correspondence including Form 4 or equivalent.
  - (f) details of any exemption and enforcement action(s).
  - (g) any other competent authority audit report forms.
  - (h) maintenance organisation expositions.
- 3. The minimum retention period for the above records shall be four years.
- 4. The competent authority may elect to use either a paper or computer system or any combination of both subject to appropriate controls.

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## AMC 145.B.55 Record-keeping

ED Decision 2015/029/R

- 1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organised in a consistent way throughout the competent authority (chronological, alphabetical order, etc.).
- 2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.
- 3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware or software changes take place special care should be taken to ensure that all necessary data continues to be accessible at least through the full period specified in 145.8.55.

#### 145.B.60 Exemptions

Regulation (EU) 2019/1383

Where a Member State grants an exemption from the requirements of this Annex in accordance with Article 71 of Regulation (EU) 2018/1139, the competent authority shall record the exemption. It shall retain those records for the period provided for in point (3) of point 145.8.55.



## **APPENDICES TO ANNEX II (PART-145)**

## Appendix I — Authorised Release Certificate — EASA Form 1

Regulation (EU) No 1321/2014

The provisions of Appendix II to Annex I (Part-M) apply.

Appendix II — Class and Ratings System used for the Approval of Maintenance Organisations referred to in Annex I (Part-M) Subpart F and Annex II (Part-145)

Regulation (EU) No 1321/2014

The provisions of Appendix IV to Annex I (Part-M) apply.

## **Appendix III — Maintenance Organisation Certificate — EASA Form 3-145**

Regulation (EU) 2020/270

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## [MEMBER STATE (\*)] A Member of the European Union (\*\*)

#### MAINTENANCE ORGANISATION CERTIFICATE

Reference: [MEMBER STATE CODE(\*)].145.XXXX

Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council and to Commission Regulation (EU) No 1321/2014 and subject to the conditions specified below, the [COMPETENT AUTHORITY OF THE MEMBER STATE (\*)] hereby certifies:

#### [COMPANY NAME AND ADDRESS]

as a maintenance organisation in compliance with Section A of Annex II (Part-145) to Regulation (EU) No 1321/2014, approved to maintain products, parts and appliances listed in the attached terms of approval and issue related certificates of release to service using the above references and, when stipulated, to issue airworthiness review certificates after an airworthiness review as specified in point ML.A.903 of Annex Vb (Part-ML) to that Regulation for those aircraft listed in the attached terms of approval

#### **CONDITIONS:**

- 1. This approval is limited to that specified in the scope of work section of the approved maintenance organisation exposition as referred to in <u>Section A of Annex II (Part-145)</u>, and
- 2. This approval requires compliance with the procedures specified in the approved maintenance organisation exposition, and
- 3. This approval is valid whilst the approved maintenance organisation remains in compliance with Annex II (Part-145) of Regulation (EU) No 1321/2014.
- 4. Subject to compliance with the foregoing conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of original issue:
Date of this revision:
Revision No:
Signed:
For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE(*)]

EASA Form 3-145 Issue 4

- (\*) Or EASA if EASA is the competent authority
- (\*\*) Delete for non-EU Member States or EASA



Page 2 of 2

## MAINTENANCE ORGANISATION TERMS OF APPROVAL

Reference: [MEMBER STATE CODE (\*)].145.[XXXX] Organisation: [COMPANY NAME AND ADDRESS]

CLASS	RATING	LIMITATION	BASE	LINE			
AIRCRAFT (**)	(***)	(****)	[YES/NO] (**)	[YES/NO] (**)			
	(***)	(****)	[YES/NO] (**)	[YES/NO] (**)			
	(***)	(****)	[YES/NO] (**)	[YES/NO] (**)			
	(***)	(****)	[YES/NO] (**)	[YES/NO] (**)			
ENGINES (**)	(***)	(***)					
	(***)	(***)	(***)				
COMPONENTS	(***)	(***)					
OTHER THAN COMPLETE	(***)	(***)					
ENGINES OR APUs (**)	(***)	(***)					
APUS (***)	(***)	(***)					
	(***)	(***)					
	(***)	(***)					
SPECIALISED	(***)	(***)					
SERVICES (**)	(***)	(***)					

These terms of approval are limited to those products, parts and appliances and to the activities specified in the scope of work section of the approved maintenance organisation exposition,

Maintenance Organisation Exposition reference:
Date of original issue:
Date of last revision approved: Revision No: Revision No:
Signed:
For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE (*)]

EASA Form 3-145 Issue 4

- (\*) Or EASA if EASA is the competent authority
- (\*\*) Delete as appropriate if the organisation is not approved.
- (\*\*\*) Complete with the appropriate rating and limitation
- (\*\*\*\*) Complete with appropriate limitation and state whether the issue of airworthiness review certificates is authorised or not.

## AMC to Appendix III — Maintenance Organisation Approval referred to in Annex II (Part-145)

ED Decision 2015/029/R

The following fields on page 2 'Maintenance Organisation Approval Schedule' of the maintenance organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the maintenance organisation exposition
- Date of last revision approved: It refers to the date of the last revision of the maintenance organisation exposition affecting the content of the certificate. Changes to the maintenance organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.
- Revision No: It refers to the revision No of the last revision of the maintenance organisation exposition affecting the content of the certificate. Changes to the maintenance organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.

APPENDICES TO ANNEX II (Part-145)



# Appendix IV — Conditions for the use of staff not qualified in accordance with Annex III (Part-66) referred to in points 145.A.30(j)1 and 2

Regulation (EU) No 1321/2014

- 1. Certifying staff in compliance with all the following conditions are deemed to meet the intent of point  $\underline{145.A.30(j)(1)}$  and  $\underline{(2)}$ :
  - (a) The person shall hold a licence or a certifying staff authorisation issued under national regulations in full compliance with ICAO Annex 1.
  - (b) The scope of work of the person shall not exceed the scope of work defined by the national licence or the certifying staff authorisation, whatever is the most restrictive.
  - (c) The person shall demonstrate he/she received the training on human factors and aviation legislation referred to in modules 9 and 10 of <u>Appendix I to Annex III (Part-66)</u>.
  - (d) The person shall demonstrate 5 years maintenance experience for line maintenance certifying staff and 8 years for base maintenance certifying staff. However, those persons whose authorised tasks do not exceed those of a <a href="Part-66">Part-66</a> category A certifying staff, need to demonstrate 3 years maintenance experience only.
  - (e) Line maintenance certifying staff and base maintenance support staff shall demonstrate he/she received type training and passed examination at the category B1, B2 or B3 level, as applicable, referred to in <a href="Appendix III to Annex III (Part-66">Appendix III to Annex III (Part-66)</a> for each aircraft type in the scope of work referred to in point (b). Those persons whose scope of work does not exceed those of a category A certifying staff may however receive task training in lieu of a complete type training.
  - (f) Base maintenance certifying staff shall demonstrate he/she received type training and passed examination at the category C level referred to in Appendix III to Annex III (Part-66) for each aircraft type in the scope of work referred to in point (b), except that for the first aircraft type, training and examination shall be at the category B1, B2 or B3 level of Appendix III.

#### 2. Protected rights

- (a) The personnel having privileges before the entry into force of the relevant requirements of Annex III (Part-66) may continue to exercise them without the need to comply with points 1(c) to 1(f).
- (b) However after that date any certifying staff willing to extend the scope of their authorisation to include additional privileges shall comply with point 1.
- (c) Notwithstanding point 2(b) above, in the case of additional type training, compliance with points 1(c) and 1(d) is not required.



## **APPENDICES TO AMC TO ANNEX II (PART-145)**

## Appendix I to AMC 145.B.20(1) — EASA Form 4

ED Decision 2015/029/R

The provisions of Appendix X to AMC M.B.602(a) and AMC M.B.702(a) EASA Form 4 apply.

## Appendix II to AMC 145.B.20(5) — EASA Form 6

ED Decision 2020/002/R

Part-145 APPROVAL RECOMMENDATI	ON REPORT E	ASA FORM 6
Part 1: General		
Name of organisation:		
Approval reference:		
Requested approval rating:		
EASA Form 3 dated*:		
FAA FAR 145 Cert No (if applicable):		
Address of facility audited:		
Audit period: From	to	
Date(s) of audit:		
Audit reference(s):		
Persons interviewed:		
Competent authority surveyor(s):	Signature(s):	
Competent authority office:	Date of EASA Form 6 Par	t 1 completion:
*delete as appropriate		



Annex II (Part-145)

APPENDICES TO AMC TO ANNEX II
(Part-145)

Part-145 APPROVAL RECOMMENDATION REPORT EASA FORM 6						
Part 2: Part-145 Compliance Audit Review						
The five columns may be labelled and used as necessary to record the approval class and/or product line						
reviewed. Against each column used of the following Part-145 points, please either tick ( $$ ) the box if satisfied with compliance, or cross (X) the box if not satisfied with compliance and specify the reference of						
but not revie	ding next to the box, or enter 'N	i/A where a	n item is not	applicable, c	or in/R whe	n applicable
Para	Subject					
raia	Subject					
145.A.25	Facility requirements					
145.A.30	Personnel requirements					
145.A.35	Certifying Staff and support staff					
<u>145.A.36</u>	Records of airworthiness					
	review staff					
145.A.40	Equipment, Tools and material					
<u>145.A.42</u>	Acceptance of Components					
<u>145.A.45</u>	Maintenance Data					
<u>145.A.47</u>	Production Planning					
<u>145.A.48</u>	Performance of maintenance					
145.A.50	Certification of Maintenance					
145.A.55	Maintenance Records					
145.A.60	Occurrence Reporting					
145.A.65	Safety and Quality Policy, maintenance procedures and Quality System					
145.A.70	Maintenance Organisation Exposition (see Part 3)					
<u>145.A.75</u>	Privileges of the organisation					
145.A.80	Limitations on the organisation					



Annex II (Part-145)

APPENDICES TO AMC TO ANNEX II
(Part-145)

145.A.85	Changes to the organisation	
145.A.95	Findings	
M.A.201(c)	Responsibilities	
M.A.403(b)	Aircraft Defects	
ML.A.201(c)	Responsibilities	
ML.A.403(b)	Aircraft Defects	
Competent surveyor(s):		Signature(s):
Competent authority office:		Date of EASA Form 6 Part 2 completion:

Annex II (Part-145)

APPENDICES TO AMC TO ANNEX II
(Part-145)

	Part-145 APPROVAL RECOMMENDATION REPORT EASA FORM 6					
Part 3: Compliance with <u>145.A.70</u> Maintenance organisation exposition						
Please either tick ( $$ ) the box if satisfied with compliance, or cross (X) if not satisfied with compliance and specify the reference of the Part 4 finding, or enter 'N/A' where an item is not applicable, or 'N/R' when						
applicable but not reviewed.						
PART 1	Manage					
1.1		Corporate commitment by the accountable manager				
1.2		Safety and Quality Policy				
1.3		Management personnel				
1.4		Duties and responsibilities of the management personnel				
1.5		Management Organisation Chart				
1.6		List of Certifying staff, support staff and airworthiness review staff (Note: a separate document may be referenced)				
1.7		Manpower resources				
1.8		General description of the facilities at each address intended to be approved				
1.9		Organisations intended scope of work				
1.10		Notification procedure to the competent authority regarding changes to the organisation's activities/approval/location/personnel				
1.11		Exposition amendment procedures				
PART 2	Mainter	nance Procedures				
2.1		Supplier evaluation and subcontract control procedure				
2.2		Acceptance/inspection of aircraft components and material from outside contractors				
2.3		Storage, tagging, and release of aircraft components and material to aircraft maintenance				
2.4		Acceptance of tools and equipment				
2.5		Calibration of tools and equipment				
2.6		Use of tooling and equipment by staff (including alternate tools)				
2.7		Cleanliness standards of maintenance facilities				
2.8		Maintenance instructions and relationship to aircraft/aircraft component manufacturers' instructions including updating and availability to staff				
2.9		Repair procedure				
2.10		Aircraft maintenance programme compliance				
2.11		Airworthiness Directives procedure				
2.12		Optional modification procedure				
2.13		Maintenance documentation in use and its completion				
2.14		Technical records control				
2.15		Rectification of defects arising during base maintenance				
2.16		Release to service procedure				
2.17		Records for the operator				

	Par	t-145 APPROVAL RECOMMENDATION REPORT EASA FORM 6					
Part 3: Compliance with 145.A.70 Maintenance organisation exposition							
Please either tick ( $$ ) the box if satisfied with compliance, or cross (X) if not satisfied with compliance and							
specify the reference of the Part 4 finding, or enter 'N/A' where an item is not applicable, or 'N/R' when applicable but not reviewed.							
2.18	Reporting of defects to the competent authority/Operator/Manufacturer						
2.19		Return of defective aircraft components to store					
2.20		Defective components to outside contractors					
2.21		Control of computer maintenance record systems					
2.22		Control of man-hour planning versus scheduled maintenance work					
2.23		Critical maintenance tasks and error-capturing methods					
2.24		Reference to specific maintenance procedures					
2.25		Procedures to detect and rectify maintenance errors					
2.26		Shift/task handover procedures					
2.27		Procedures for notification of maintenance data inaccuracies and ambiguities to the					
2.28		type certificate holder Production planning procedures					
2.29		Airworthiness review procedures and records					
2.30		[Reserved]					
PART L2	Additio	nal Line Maintenance Procedures					
L2.1		Line maintenance control of aircraft components, tools, equipment, etc.					
L2.2		Line maintenance procedures related to servicing/fuelling/de-icing, etc.					
L2.3		Line maintenance control of defects and repetitive defects					
L2.4		Line procedure for completion of technical log					
L2.5		Line procedure for pooled parts and loan parts					
L2.6		Line procedure for return of defective parts removed from aircraft					
L2.7		Line procedure for critical maintenance tasks and error-capturing methods					
PART 3	Quality	System Procedures					
3.1		Quality audit of organisation procedures					
3.2		Quality audit of aircraft					
3.3		Quality audit remedial action procedure					
3.4		Certifying staff and support staff qualification and training procedures					
3.5		Certifying staff records					
3.6		Quality audit personnel					
3.7		Qualifying inspectors					
3.8		Qualifying mechanics					
3.9		Aircraft/aircraft component maintenance tasks exemption process control.					
3.10		Concession control for deviation from organisation's procedures					
3.11		Qualification procedure for specialised activities such as NDT, welding, etc.					



Part-145 APPROVAL RECOMMENDATION REPORT EASA FORM 6						
Part 3: Compliance with <u>145.A.70</u> Maintenance organisation exposition						
Please either tick ( $$ ) the box if satisfied with compliance, or cross (X) if not satisfied with compliance and						
specify the reference of the Part 4 finding, or enter 'N/A' where an item is not applicable, or 'N/R' when						
applicable but not reviewed.						
3.12		Control of manufacturers' and other maintenance working teams				
3.13		Human Factors training procedure				
3.14		Competence assessment of personnel				
3.15		Training procedures for on-the-job training as per <u>Section 6 of Appendix III to Part-66</u> (limited to the case where the competent authority for the Part-145 approval and for the Part-66 licence is the same).				
3.16		Procedure for the issue of a recommendation to the competent authority for the issue of a Part-66 licence in accordance with 66.B.105 (limited to the case where the competent authority for the Part-145 approval and for the Part-66 licence is the same).				
PART 4						
4.1		Contracting operators				
4.2		Operator procedures/paperwork				
4.3		Operator record completion				
PART 5	PART 5 Appendices					
5.1		Sample Documents				
5.2		List of subcontractors				
5.3		List of Line maintenance locations				
5.4		List of Part-145 organisations				
PART 6 Operators' Maintenance Procedures (reserved for those maintenance organisations that are approved under Part-145 which are also operators)						
6.1	арргото	a under rure 115 which are also operators,				
MOE Refer	MOE Reference: MOE Amendment:					
Competent authority audit staff: Signature(s):						
Competent authority office: Date of EASA Form 6 Part 3 completion:						



Pa	art-145 APPROVAL RECOMMENDATION REPORT		EASA F	ORM 6		
Part 4: Findings — Part-145 Compliance status						
Each level 1 and 2 finding should be recorded whether it has been rectified or not and should be identified						
by a simple cross-reference to the Part 2 requirement. All non-rectified findings should be copied in writing						
to the organisation for the necessary corrective action.						
Part	Audit reference(s):	L	Corrective action			
2 or 3		Ε				
reference	Findings	V	Date	Date	Reference	
		Ε	Due	Closed		
		L				



Part-145 APPROVAL RECOMMENDATI	ON REPORT EASA	FORM 6			
Part 5: Part-145 Approval or continued approval or change recommendation*					
Name of organisation:					
Approval reference:					
Audit reference(s):					
The following Part-145 scope of approval is recommend	ded for this organisation:				
Or, it is recommended that the Part-145 scope of approval specified in EASA Form 3 referenced be continued.					
Name of recommending competent authority surveyor					
Signature of recommending competent authority surveyor:					
Competent authority office:					
Date of recommendation:					
EASA Form 6 review (quality check):	Date:				
		*delete as appropriate			

Annex II (Part-145)

APPENDICES TO AMC TO ANNEX II
(Part-145)

# Appendix III to AMC 145.A.15 — EASA Form 2

ED Decision 2015/029/R

The provisions of Appendix IX to AMC M.A.602 and AMC M.A.702 EASA Form 2 apply.

Annex II (Part-145) APPENDICES TO AMC TO ANNEX II (Part-145)

# Appendix IV to AMC 145.A.30(e) and 145.B.10(3) — Fuel tank safety training

ED Decision 2021/009/R: ED Decision 2015/029/R

This appendix includes general instructions for providing training on fuel tank safety issues.

#### A. Effectivity:

- Large aeroplanes as defined in Decision 2003/11/RM of the Executive Director of the Agency (CS-25) and certified after 1 January 1958 with a maximum type certified passenger capacity of 30 or more or a maximum certified payload capacity of 7500 lbs (3402 kg) cargo or more, and
- Large aeroplanes as defined in Decision 2003/11/RM of the Executive Director of the Agency (CS-25) which contains CS-25 amendment 1 or later in their certification basis.

#### B. Affected organisations:

- Part-145 approved maintenance organisations involved in the maintenance of aeroplanes specified in paragraph A) and fuel system components installed on such aeroplanes when the maintenance data are affected by CDCCL.
- Competent authorities responsible as per <u>145.B.30</u> for the oversight of the <u>Part-145</u> approved organisations specified in this paragraph B).

#### C. Persons from affected organisations who should receive training:

#### Phase 1 only:

- The group of persons representing the maintenance management structure of the organisation, the quality manager and the staff required to quality monitor the organisation.
- Personnel of the competent authorities responsible as per <u>145.B.30</u> for the oversight of <u>Part-145</u> approved maintenance organizations specified in paragraph B).

#### <u>Phase 1 + Phase 2 + Continuation training:</u>

 Personnel of the <u>Part-145</u> approved maintenance organization required to plan, perform, supervise, inspect and certify the maintenance of aircraft and fuel system components specified in paragraph A).

#### D. General requirements of the training courses

#### Phase 1 – Awareness:

The training should be carried out before the person starts to work without supervision but not later than 6 months after joining the organisation. The persons who have already attended the Level 1 Familiarisation course in compliance with ED Decision 2007/002/R Appendix IV is already in compliance with Phase 1.

<u>Type</u>: Should be an awareness course with the principal elements of the subject. It may take the form of a training bulletin, or other self study or informative session. Signature of the reader is required to ensure that the person has passed the training.

<u>Level</u>: It should be a course at the level of familiarisation with the principal elements of the subject.

<u>Objectives</u>: The trainee should, after the completion of the training:

- 1. Be familiar with the basic elements of the fuel tank safety issues.
- 2. Be able to give a simple description of the historical background and the elements requiring a safety consideration, using common words and showing examples of non conformities.
- 3. Be able to use typical terms.

#### Content: The course should include:

- a short background showing examples of FTS accidents or incidents,
- the description of concept of fuel tank safety and CDCCL,
- some examples of manufacturers documents showing CDCCL items,
- typical examples of FTS defects,
- some examples of TC holders repair data
- some examples of maintenance instructions for inspection.

#### Phase 2 - Detailed training

A flexible period may be allowed by the competent authorities to allow organisations to set the necessary courses and impart the training to the personnel, taking into account the organisation's training schemes/means/practices. This flexible period should not extend beyond 31 December 2010.

The persons who have already attended the Level 2 Detailed training course in compliance with ED decision 2007/002/R Appendix IV either from a <u>Part-145</u> maintenance organisation or from a <u>Part-147</u> training organisation are already in compliance with Phase 2 with the exception of continuation training.

Staff should have received Phase 2 training by 31 December 2010 or within 12 months of joining the organisation, whichever comes later.

<u>Type</u>: Should be a more in-depth internal or external course. It should not take the form of a training bulletin, or other self study. An examination should be required at the end, which should be in the form of a multi choice question, and the pass mark of the examination should be 75%.

Level: It should be a detailed course on the theoretical and practical elements of the subject.

The training may be made either:

- in appropriate facilities containing examples of components, systems and parts affected by Fuel Tank Safety (FTS) issues. The use of films, pictures and practical examples on FTS is recommended; or
- by attending a distance course (e-learning or computer based training) including a film when such film meets the intent of the objectives and content here below. An e-learning or computer based training should meet the following criteria:
  - A continuous evaluation process should ensure the effectiveness of the training and its relevance;
  - Some questions at intermediate steps of the training should be proposed to ensure that the trainee is authorized to move to the next step;
  - The content and results of examinations should be recorded;

Annex II (Part-145) APPENDICES TO AMC TO ANNEX II (Part-145)

 Access to an instructor in person or at distance should be possible in case support is needed.

A duration of 8 hours for phase 2 is an acceptable compliance.

When the course is provided in a classroom, the instructor should be very familiar with the data in Objectives and Guidelines. To be familiar, an instructor should have attended himself a similar course in a classroom and made additionally some lecture of related subjects.

#### Objectives:

The attendant should, after the completion of the training:

- have knowledge of the history of events related to fuel tank safety issues and the theoretical and practical elements of the subject, have an overview of the FAA regulations known as SFAR (Special FAR) 88 of the FAA and of JAA Temporary Guidance Leaflet TGL 47, be able to give a detailed description of the concept of fuel tank system ALI (including Critical Design Configuration Control Limitations CDCCL, and using theoretical fundamentals and specific examples;
- have the capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner;
- have knowledge on how the above items affect the aircraft;
- be able to identify the components or parts or the aircraft subject to FTS from the manufacturer's documentation,
- be able to plan the action or apply a Service Bulletin and an Airworthiness Directive.

Content: Following the guidelines described in paragraph E).

#### **Continuation training:**

The organisation should ensure that the continuation training is required in each two years period. The syllabus of the training programme referred to in 3.4 of the Maintenance Organisation Exposition (MOE) should include the additional syllabus for this continuation training.

The continuation training may be combined with the phase 2 training in a classroom or at distance.

The continuing training should be updated when new instruction are issued which are related to the material, tools, documentation and manufacturer's or competent authority's directives.

#### E. Guidelines for preparing the content of Phase 2 courses.

The following guidelines should be taken into consideration when the phase 2 training programme are being established:

- (a) understanding of the background and the concept of fuel tank safety,
- (b) how the mechanics can recognise, interpret and handle the improvements in the instruction for continuing airworthiness that have been made or are being made regarding the fuel tank system maintenance,
- (c) awareness of any hazards especially when working on the fuel system, and when the Flammability Reduction System using nitrogen is installed.

Annex II (Part-145) APPENDICES TO AMC TO ANNEX II (Part-145)

Paragraphs a), b) and c) above should be introduced in the training programme addressing the following issues:

- (i) The theoretical background behind the risk of fuel tank safety: the explosions of mixtures of fuel and air, the behaviour of those mixtures in an aviation environment, the effects of temperature and pressure, energy needed for ignition etc, the 'fire triangle', Explain 2 concepts to prevent explosions:
  - (1) ignition source prevention and
  - (2) flammability reduction,
- (ii) The major accidents related to fuel tank systems, the accident investigations and their conclusions,
- (iii) SFAR 88 of the FAA and JAA Interim Policy INT POL 25/12: ignition prevention program initiatives and goals, to identify unsafe conditions and to correct them, to systematically improve fuel tank maintenance),
- (iv) Explain the briefly concepts that are being used: the results of SFAR 88 of the FAA and JAA INT/POL 25/12: modifications, airworthiness limitations items and CDCCL,
- (v) Where relevant information can be found and how to use and interpret this information in the instructions for continuing airworthiness (aircraft maintenance manuals, component maintenance manual, etc.),
- (v) Where relevant information can be found and how to use and interpret this information in the applicable maintenance data as defined in 145.A.45(b),[applicable from 18 May 2022]
- (vi) Fuel Tank Safety during maintenance: fuel tank entry and exit procedures, clean working environment, what is meant by configuration control, wire separation, bonding of components etc,
- (vii) Flammability reduction systems when installed: reason for their presence, their effects, the hazards of an FRS using nitrogen for maintenance, safety precautions in maintenance/working with an FRS,
- (viii) Recording maintenance actions, recording measures and results of inspections.

The training should include a representative number of examples of defects and the associated repairs as required by the TC/STC holders' maintenance data.

#### F. Approval of training

For <u>Part-145</u> approved organisations, the approval of the initial and continuation training programme and the content of the examination can be achieved by the change to the MOE. The necessary changes to the MOE to meet the content of this decision should be made and implemented at the time requested by the competent authority.



# **ANNEX III (PART-66)**

### **GENERAL**

# 66.1 Competent authority

Regulation (EU) No 1321/2014

- (a) For the purpose of this Annex (Part-66), the competent authority shall be:
  - 1. the authority designated by the Member State to whom a person first applies for the issuance of an aircraft maintenance licence; or
  - 2. the authority designated by another Member State, in case it would be different, subject to agreement with the authority referred to in point 1. In that case, the licence referred to in point 1 shall be revoked, all the records mentioned in point 66.B.20 shall be transferred and a new licence shall be issued on the basis of these records.
- (b) The Agency shall be responsible for defining:
  - 1. the list of aircraft types; and
  - 2. what airframe/engine combinations are included in each particular aircraft type rating.

# AMC 66.1(a) Competent Authority

ED Decision 2015/029/R

A competent authority may be a ministry, a national aviation authority, or any aviation body designated by the Member State and located within that Member State. A Member State may designate more than one competent authority to cover different areas of responsibility, as long as the designation decision contains a list of the competencies of each authority and there is only one competent authority responsible for each given area of responsibility.

The purpose of 66.1(a)2 is to allow the possibility for a person who already holds a Part-66 licence issued by one Member State (i.e. Member State X) to replace it by a Part-66 licence issued by another Member State (i.e. Member State Y). This may be useful, for example, in cases where a person holding a licence from 'Member State X' is developing his/her career in a maintenance organisation located in 'Member State Y'. In this case, this person may need to endorse new type ratings based on courses directly approved by the competent authority of 'Member State Y' or may need to endorse new licence (sub)categories based on basic examinations performed by the competent authority of 'Member State Y'.



### **SECTION A — TECHNICAL REQUIREMENTS**

#### SUBPART A — AIRCRAFT MAINTENANCE LICENCE

# 66.A.1 Scope

Regulation (EU) No 1321/2014

This section defines the aircraft maintenance licence and establishes the requirements for application, issue and continuation of its validity.

# 66.A.3 Licence categories and subcategories

Regulation (EU) 2018/1142

Aircraft maintenance licences include the following categories and, where applicable, subcategories and system ratings:

- (a) Category A, divided into the following subcategories:
  - A1 Aeroplanes Turbine;
  - A2 Aeroplanes Piston;
  - A3 Helicopters Turbine;
  - A4 Helicopters Piston.
- (b) Category B1, divided into the following subcategories:
  - B1.1 Aeroplanes Turbine;
  - B1.2 Aeroplanes Piston;
  - B1.3 Helicopters Turbine;
  - B1.4 Helicopters Piston.
- (c) Category B2

The B2 licence is applicable to all aircraft.

(d) Category B2L

The B2L licence is applicable to all aircraft other than those in Group 1 as set out in Point 66.A.5(1) and is divided into the following 'system ratings':

- communication/navigation (com/nav),
- instruments,
- autoflight,
- surveillance,
- airframe systems.

A B2L licence shall contain, as a minimum, one system rating.

Annex III (Part-66)

SECTION A — TECHNICAL

REQUIREMENTS

#### (e) Category B3

The B3 licence is applicable to piston-engine non-pressurised aeroplanes of 2 000 kg Maximum Take-off Mass (MTOM) and below.

- (f) Category L, divided into the following subcategories:
  - L1C: composite sailplanes,
  - L1: sailplanes,
  - L2C: composite powered sailplanes and composite ELA1 aeroplanes,
  - L2: powered sailplanes and ELA1 aeroplanes,
  - L3H: hot-air balloons,
  - L3G: gas balloons,
  - L4H: hot-air airships,
  - L4G: ELA2 gas airships,
  - L5: gas airships other than ELA2.

#### (g) Category C

The C licence is applicable to aeroplanes and helicopters.

### **GM 66.A.3 Licence categories**

ED Decision 2019/009/R

'ELA1 aeroplanes' refers to those aeroplanes which meet the definition of 'ELA1 aircraft' that is contained in Article 2(k) of Regulation (EU) No 1321/2014.

'ELA2 gas airships' refers to those gas airships which meet the definition of 'ELA2 aircraft' that is contained in Article 2(ka) of Regulation (EU) No 1321/2014.

'Gas airships other than ELA2' refers to those gas airships which do not meet at least one condition of the definition of 'ELA2 aircraft' that is contained in Article 2(ka) of Regulation (EU) No 1321/2014.

NOTE: The 'ELA2 aircraft' category includes all 'ELA1 aircraft'.

The term 'powered sailplane' includes:

- those powered sailplanes which may take off solely by means of their own power (self-launching sailplanes); and
- self-sustaining powered sailplanes; and
- touring motor gliders (TMGs).

While the L1C subcategory only includes composite sailplanes, the L1 subcategory includes all sailplanes (composite, metal and wood).

While the L2C subcategory only includes composite powered sailplanes and composite ELA1 aeroplanes, the L2 subcategory includes all powered sailplanes and ELA1 aeroplanes (composite, metal and wood).

In the case of maintenance of mixed balloons (combination of gas and hot air), it is required to hold both L3G and L3H subcategories.

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SECTION A — TECHNICAL

REQUIREMENTS

For the B2L licence, a 'system rating' is a rating which gives privileges to release maintenance on the aircraft systems covered by the 'system rating' and electrical systems.

The sentence 'shall contain, as a minimum, one system rating' refers to the fact that the application for a B2L licence should be made for any of the system ratings or any combination of the system ratings specified in 66.A.3.

There is no specific order in which the system ratings should be applied for. Any combination of system ratings is possible.

The description of systems covered by the different system ratings is provided in Appendix I 'Basic Knowledge Requirements' under paragraph '2. Modularisation', subparagraph related to 'Categories B2 and B2L'.

# 66.A.5 Aircraft groups

Regulation (EU) 2018/1142

For the purpose of ratings on aircraft maintenance licences, aircraft shall be classified into the following groups:

- (1) Group 1: complex motor-powered aircraft, helicopters with multiple engines, aeroplanes with maximum certified operating altitude exceeding FL290, aircraft equipped with fly-by-wire systems, gas airships other than ELA2 and other aircraft requiring an aircraft type rating when defined as such by the Agency.
  - The Agency may decide to classify into Group 2, Group 3 or Group 4, as appropriate, an aircraft which meets the conditions set out in the first subparagraph, if it considers that the lower complexity of the particular aircraft justifies so.
- (2) Group 2: aircraft other than those in Group 1 belonging to the following subgroups:
  - (i) subgroup 2a:
    - single turboprop engine aeroplanes,
    - those turbojet and multiple-turboprop aeroplanes classified by the Agency in this subgroup because of their lower complexity.
  - (ii) subgroup 2b:
    - single turbine engine helicopters,
    - those multiple turbine engine helicopters classified by the Agency in this subgroup because of their lower complexity.
  - (iii) subgroup 2c:
    - single piston engine helicopters,
    - those multiple piston engine helicopters classified by the Agency in this subgroup because of their lower complexity.
- (3) Group 3: piston engine aeroplanes other than those in Group 1.
- (4) Group 4: sailplanes, powered sailplanes, balloons and airships, other than those in Group 1.



# GM 66.A.5 Aircraft groups

ED Decision 2020/002/R

The following table summarises the applicability of categories/subcategories of Part-66 licences versus the groups/subgroups of aircraft:

Category/subcategory					L				
Groups	A, B1 and C	В2	B2L	В3	L1C and L1	L2C and L2	L3H and L3G	L4H and L4G	L5
- Complex motor-powered aircraft - Multi-engine helicopters - Aeroplanes above FL290 - Aircraft with fly-by-wire systems - Any other aircraft when defined by the Agency	x	х							
1 — Gas airships other than ELA2		Х							Х
2 2a: Single turboprop aeroplanes 2b: Single turbine helicopters 2c: Single piston helicopters	x	X	X						
3 — Piston engine aeroplanes	Х	Х	X						
3 — Piston engine aeroplanes (non- pressurised of 2 000 kg MTOM and below)	x	x	X	X					
3 — ELA1 piston engine aeroplanes	х	Х	X	Х		X			
4 — Sailplanes — Powered sailplanes — Balloons — Airships not in Group 1		X X X	X X X		х	X X	х	X	X

# 66.A.10 Application

Regulation (EU) No 1321/2014

- (a) An application for an aircraft maintenance licence or change to such licence shall be made on an <u>EASA Form 19</u> (see Appendix V) in a manner established by the competent authority and submitted thereto.
- (b) An application for the change to an aircraft maintenance licence shall be made to the competent authority of the Member State that issued the aircraft maintenance licence.
- (c) In addition to the documents required in points <u>66.A.10(a)</u>, <u>66.A.10(b)</u> and <u>66.B.105</u>, as appropriate, the applicant for additional basic categories or subcategories to an aircraft maintenance licence shall submit his/her current original aircraft maintenance licence to the competent authority together with the <u>EASA Form 19</u>.

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SECTION A — TECHNICAL

REQUIREMENTS

- (d) Where the applicant for change of the basic categories qualifies for such change via the procedure referred to in point <u>66.B.100</u> in a Member State other than the Member State which issued the license, the application shall be sent to the competent authority referred to in point <u>66.1</u>.
- (e) Where the applicant for change of the basic categories qualifies for such change via the procedure referred to in point <u>66.B.105</u> in a Member State other than the Member State which issued the license, the maintenance organisation approved in accordance with <u>Annex II (Part-145)</u> shall send the aircraft maintenance licence together with the <u>EASA Form 19</u> to the competent authority referred to in point <u>66.1</u> for stamp and signature of the change or reissue of the licence, as appropriate.
- (f) Each application shall be supported by documentation to demonstrate compliance with the applicable theoretical knowledge, practical training and experience requirements at the time of application.

# AMC 66.A.10 Application

ED Decision 2015/029/R

- 1. Maintenance experience should be written up in a manner that the reader has a reasonable understanding of where, when and what maintenance constitutes the experience. A task by task account is not necessary but at the same time a bland statement 'X years maintenance experience completed' is not acceptable. A log book of maintenance experience is desirable and some competent authorities may require such log book to be kept. It is acceptable to cross refer in the EASA Form 19 to other documents containing information on maintenance.
- 2. Applicants claiming the maximum reduction in <u>66.A.30(a)</u> total experience based upon having successfully completed <u>147.A.200</u> approved basic training should include the <u>Part-147</u> certificate of recognition for approved basic training.
- 3. Applicants claiming reduction in <u>66.A.30(a)</u> total experience based upon having successfully completed technical training in an organisation or institute recognised by the competent authority as a competent organisation or institute, should include the relevant certificate of successful completion of training.

# GM 66.A.10(a) Application

ED Decision 2020/002/R

When an application is made for a licence in the B2L category, the applicant should specify on the EASA Form 19:

- the system rating or the combination of system ratings the applicant applies for; and
- the aircraft rating,

considering that according to <u>66.A.45(e)</u>, a B2L licence endorsed with full subgroup 2b can be endorsed also with full subgroup 2c.

When applying for the addition of a system rating on a B2L licence, the applicant should provide together with the application, the demonstration of compliance with the experience requirements related to the system the applicant applies for.

When a B2L licence holder applies for the extension of a B2L licence to add a new system rating, he/she needs to demonstrate the practical experience required by  $\underline{66.A.30(a)(2a)}$  for the system rating but also the practical experience required by  $\underline{66.A.45(e)}$  and (f) in case the aircraft group is different.



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SECTION A — TECHNICAL

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When a B2L licence holder applies for the change of his/her B2L licence to the B2 category, he/she needs only to:

- demonstrate by examination the differences between the basic knowledge corresponding to the B2L licence held and the basic knowledge of the B2 licence, as described in <u>Appendix I</u>; and
- demonstrate the additional experience described in <u>Appendix IV</u>.

These requirements can be found also for the competent authority in 66.B.110.

When an applicant applies for the extension of his/her B2L licence to a B2 licence and he/she meets the relevant requirements, the B2L licence is replaced by the B2 licence.

# 66.A.15 Eligibility

Regulation (EU) No 1321/2014

An applicant for an aircraft maintenance licence shall be at least 18 years of age.

# 66.A.20 Privileges

Regulation (EU) 2021/700

- (a) The following privileges shall apply:
  - 1. A category A aircraft maintenance licence permits the holder to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in point 145.A.35 of Annex II (Part-145). The certification privileges shall be restricted to work that the licence holder has personally performed in the maintenance organisation that issued the certification authorisation.
  - 2. A category B1 aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as B1 support staff following:
    - maintenance performed on aircraft structure, powerplant and mechanical and electrical systems,
    - work on avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting.

Category B1 includes the corresponding A subcategory.

- 3. A category B2 aircraft maintenance licence shall permit the holder:
  - (i) to issue certificates of release to service and to act as B2 support staff for following:
    - maintenance performed on avionic and electrical systems, and
    - electrical and avionics tasks within powerplant and mechanical systems,
       requiring only simple tests to prove their serviceability; and
  - (ii) to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in point 145.A.35 of Annex II (Part-145). This certification privilege shall be restricted to work that the licence holder has personally performed in the maintenance organisation which issued the certification authorisation and limited to the ratings already endorsed in the B2 licence.

The category B2 licence does not include any A subcategory.

- 4. A category B2L aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as B2L support staff for the following:
  - maintenance performed on electrical systems;
  - maintenance performed on avionics systems within the limits of the system ratings specifically endorsed on the licence, and
  - when holding the 'airframe system' rating, performance of electrical and avionics tasks within power plant and mechanical systems, requiring only simple tests to prove their serviceability.
- 5. A category B3 aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as B3 support staff for the following:
  - maintenance performed on aeroplane structure, power plant and mechanical and electrical systems; and
  - work on avionics systems requiring only simple tests to prove their serviceability and not requiring troubleshooting.
- 6. A category L aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as L support staff for the following:
  - maintenance performed on aircraft structure, power plant and mechanical and electrical systems;
  - work on radio, Emergency Locator Transmitters (ELT) and transponder systems;
     and
  - work on other avionics systems requiring simple tests to prove their serviceability.

Subcategory L2 includes subcategory L1. Any limitation to subcategory L2 in accordance with point 66.A.45(h) becomes also applicable to subcategory L1.

Subcategory L2C includes subcategory L1C.

- 7. A category C aircraft maintenance licence shall permit the holder to issue certificates of release to service following base maintenance of the aircraft. The privileges apply to the aircraft in its entirety.
- (b) The holder of an aircraft maintenance licence may not exercise its privileges unless:
  - in compliance with the applicable requirements of Annex I (Part-M), Annex II (Part-145), Annex Vb (Part-ML) and Annex Vd (Part-CAO); and
  - 2. in the preceding 2-year period he/she has, either had 6 months of maintenance experience in accordance with the privileges granted by the aircraft maintenance licence or, met the provision for the issue of the appropriate privileges; and
  - 3. he/she has the adequate competence to certify maintenance on the corresponding aircraft; and
  - 4. he/she is able to read, write and communicate to an understandable level in the language(s) in which the technical documentation and procedures necessary to support the issue of the certificate of release to service are written.

### GM 66.A.20(a) Privileges

ED Decision 2020/002/R

1. The following definitions apply:

**Electrical system** means the aircraft electrical power supply source, plus the distribution system to the different components contained in the aircraft and relevant connectors. Lighting systems are also included in this definition. When working on cables and connectors which are part of these electrical systems, the following typical practices are included in the privileges:

- Continuity, insulation and bonding techniques and testing;
- Crimping and testing of crimped joints;
- Connector pin removal and insertion;
- Wiring protection techniques.

**Avionics system** means an aircraft system that transfers, processes, displays or stores analogue or digital data using data lines, data buses, coaxial cables, wireless or other data transmission medium, and includes the system's components and connectors. Examples of avionics systems include the following:

- Autoflight;
- Communication, Radar and Navigation;
- Instruments (see NOTE below);
- In Flight Entertainment Systems;
- Integrated Modular Avionics (IMA);
- On-Board Maintenance Systems;
- Information Systems;
- Fly by Wire Systems (related to ATA27 'Flight Controls');
- Fibre Optic Control Systems.

NOTE: Instruments are formally included within the privileges of the B2 and B2L with system rating 'instruments'. However, maintenance on electromechanical and pitot-static components may also be released by a B1, B3 or L licence holder.

**Simple test** means a test described in approved maintenance data and meeting all the following criteria:

- The serviceability of the system can be verified using aircraft controls, switches, Built-in Test Equipment (BITE), Central Maintenance Computer (CMC) or external test equipment not involving special training.
- The outcome of the test is a unique go no go indication or parameter, which can be a single value or a value within an interval tolerance. No interpretation of the test result or interdependence of different values is allowed.
- The test does not involve more than 10 actions as described in the approved maintenance data (not including those required to configure the aircraft prior to the test, i.e. jacking, flaps down, etc, or to return the aircraft to its initial configuration). Pushing a control, switch or button, and reading the corresponding outcome may be considered as a single step even if the maintenance data shows them separated.



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**Troubleshooting** means the procedures and actions necessary, using approved maintenance data, in order to identify the root cause of a defect or malfunction. It may include the use of BITE or external test equipment.

**Line maintenance** means any maintenance that is carried out before flight to ensure that the aircraft is fit for the intended flight. It may include:

- trouble shooting;
- defect rectification;
- component replacement with use of external test equipment, if required. Component replacement may include components such as engines and propellers;
- scheduled maintenance and/or checks including visual inspections that will detect obvious unsatisfactory conditions/discrepancies but do not require extensive in depth inspection. It may also include internal structure, systems and powerplant items which are visible through quick opening access panels/doors;
- minor repairs and modifications which do not require extensive disassembly and can be accomplished by simple means;
- for temporary or occasional cases (Airworthiness Directives, hereinafter AD; service bulletins, hereinafter SB) the quality manager may accept base maintenance tasks to be performed by a line maintenance organisation provided all requirements are fulfilled. The Member State will prescribe the conditions under which these tasks may be performed.

**Base Maintenance** means any task falling outside the criteria that are given above for *Line Maintenance*.

#### NOTE:

Aircraft maintained in accordance with 'progressive' type programmes need to be individually assessed in relation to this paragraph. In principle, the decision to allow some 'progressive' checks to be carried out is determined by the assessment that all tasks within the particular check can be carried out safely to the required standards at the designated line maintenance station.

- 2. The category B3 licence does not include any A subcategory. Nevertheless, this does not prevent the B3 licence holder from releasing maintenance tasks typical of the A1.2 subcategory for piston-engine non-pressurized aeroplanes of 2 000 kg MTOM and below, within the limitations contained in the B3 licence.
- 3. The B1.2 and B3 licences do not include any L subcategory. Nevertheless, the holder of a B1.2 or B3 licence with the appropriate ratings is entitled to receive, upon application, licences in the L1 and L2 subcategories under the conditions described in point 66.B.110(d).
- 4. The privileges of the B2 licence with given aircraft ratings include the privileges of the B2L licence for all the system ratings for the same aircraft ratings. Nevertheless, the holder of a B2 licence with given aircraft ratings may apply for a B2L licence in order to include a different aircraft rating if the applicant only wants to demonstrate compliance with the experience requirements for certain system ratings.
- 5. The category C licence permits certification of scheduled base maintenance by the issue of a single certificate of release to service for the complete aircraft after the completion of all such maintenance. The basis for this certification is that the maintenance has been carried out by competent mechanics, and category B1, B2, B2L, B3 and L support staff, as appropriate, have

Annex III (Part-66)

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signed for the maintenance tasks under their respective specialisation. The principal function of the category C certifying staff is to ensure that all required maintenance has been called up and signed off by the category B1, B2, B2L, B3 and L support staff, as appropriate, before issue of the certificate of release to service. Only category C personnel who also hold category B1, B2, B2L, B3 or L qualifications may perform both roles in base maintenance.

# AMC 66.A.20(a)(4) Privileges

ED Decision 2019/009/R

'Within the limits of the system ratings specifically endorsed on the licence' refers to the fact that the privileges of the licence holder are limited:

- to the group/subgroup of aircraft endorsed on the licence, but also
- to the system rating(s) endorsed.

When an applicant wishes to get the privilege to issue certificates of release to service and to act as support staff for electrical and avionics tasks within powerplant and mechanical systems, he/she should apply for the rating 'airframe system' on the B2L licence. The reason is that the 'airframe systems' rating is the only rating which covers completely the electrical and avionics tasks of the powerplant and mechanical systems of the aircraft.

# AMC 66.A.20(b)(2) Privileges

ED Decision 2020/002/R

The 6 months of maintenance experience in the preceding 2-year period should be understood as consisting of two elements, duration and nature of the experience. The minimum to meet the requirements for these elements may vary depending on the size and complexity of the aircraft and type of operation and maintenance.

#### 1. Duration:

Within an approved maintenance organisation:

- 6 months of continuous employment within the same organisation; or
- 6 months split up into different blocks, employed within the same or in different organisations.

The 6-month period can be replaced by 100 days of maintenance experience in accordance with the privileges, whether they have been performed within an approved organisation or as independent certifying staff according to M.A.801(b)1, or as a combination thereof.

When a licence holder maintains and releases aircraft in accordance with M.A.801(b)1, in certain circumstances this number of days may even be reduced by 50% when agreed in advance by the competent authority. These circumstances consider the cases where the licence holder happens to be the owner of an aircraft and carries out maintenance on his/her own aircraft, or where a licence holder maintains an aircraft operated for low utilisation, that does not allow the licence holder to accumulate the required experience. This reduction should not be combined with the 20% reduction permitted when carrying out technical support, or maintenance planning, continuing airworthiness management or engineering activities. To avoid a too long period without experience, the working days should be spread over the intended 6-month period.

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#### 2. Nature of the experience:

Depending on the category of the aircraft maintenance licence, the following activities are considered relevant for maintenance experience:

- Servicing;
- Inspection;
- Operational and functional testing;
- Trouble-shooting;
- Repairing;
- Modifying;
- Changing component;
- Supervising these activities;
- Releasing aircraft to service.

For category A licence holders, the experience should include exercising the privileges, by means of performing tasks related to the authorization on at least one aircraft type for each licence subcategory. This means tasks as mentioned in <u>AMC 145.A.30(g)</u>, including servicing, component changes and simple defect rectifications.

For category B1, B2, B2L, B3 and L, for every aircraft included in the authorisation the experience should be on that particular aircraft or on a similar aircraft within the same licence (sub)category. Two aircraft can be considered to be similar when they have similar technology, construction and comparable systems, which means equally equipped with the following (as applicable to the licence category):

- Propulsion systems (piston, turboprop, turbofan, turboshaft, jet-engine or push propellers); and
- Flight control systems (only mechanical controls, hydro-mechanically powered controls or electro-mechanically powered controls); and
- Avionic systems (analogue systems or digital systems); and
- Structure (manufactured of metal, composite or wood).

For licences endorsed with (sub)group ratings:

- In the case of a B1 licence endorsed with (sub)group ratings (either manufacturer subgroup or full (sub)group) as defined in 66.A.45, the holder should show experience on at least one aircraft type per (sub)group and per aircraft structure (metal, composite, wood).
- In the case of a B2 or B2L licence endorsed with (sub)group ratings (either manufacturer subgroup or full (sub)group) as defined in 66.A.45, the holder should show experience on at least one aircraft type per (sub)group.
- In the case of a B3 licence endorsed with the rating 'piston-engine non-pressurised aeroplanes of 2000 kg MTOM and below' as defined in 66.A.45, the holder should show experience on at least one aircraft type per aircraft structure (metal, metal-tubing with fabric, composite, wooden).



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SECTION A — TECHNICAL

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For category C, the experience should cover at least one of the aircraft types endorsed on the licence.

For a combination of categories, the experience should include some activities of the nature shown in paragraph 2 in each category.

A maximum of 20% of the experience duration required may be replaced by the following relevant activities on an aircraft type of similar technology, construction and with comparable systems:

- Aircraft maintenance related training as an instructor/assessor or as a student;
- Maintenance technical support/engineering;
- Maintenance management/planning.

The experience should be documented in an individual log book or in any other recording system (which may be an automated one) containing the following data:

- Date;
- Aircraft type;
- Aircraft identification i.e. registration;
- ATA chapter (optional);
- Operation performed e.g. 100 FH check, MLG wheel change, engine oil check and complement, SB embodiment, trouble shooting, structural repair, STC embodiment, etc.;
- In the particular case of Part-145 organisations, the type of maintenance i.e. base, line;
- Type of activity i.e. perform, supervise, release;
- Subcategory used (A1, A2, A3, A4, B1.1, B1.2, B1.3, B1.4, B2, B2L, B3, C or L1, L1C, L2, L2C, L3G, L3H, L4G, L4H, L5);
- Duration in days or partial-days.

# GM 66.A.20(b)2 Privileges

ED Decision 2015/029/R

The sentence 'met the provision for the issue of the appropriate privileges' included in 66.A.20(b)2 means that during the previous 2 years the person has met all the requirements for the endorsement of the corresponding aircraft rating (for example, in the case of aircraft in Group 1, theoretical plus practical element plus, if applicable, on-the-job training). This supersedes the need for 6 months of experience for the first 2 years. However, the requirement of 6 months of experience in the preceding 2 years will need to be met after the second year.

# AMC 66.A.20(b)3 Privileges

ED Decision 2015/029/R

The wording 'has the adequate competence to certify maintenance on the corresponding aircraft' means that the licence holder and, if applicable, the organisation where he/she is contracted/employed, should ensure that he/she has acquired the appropriate knowledge, skills, attitude and experience to release the aircraft being maintained. This is essential because some systems and technology present in the particular aircraft being maintained may not have been covered by the training/examination/experience required to obtain the licence and ratings.

This is typically the case, among others, in the following situations:

- Type ratings which have been endorsed on a licence in accordance with <a href="Appendix I to AMC to Part-66">Appendix I to AMC to Part-66</a> 'List of Type Ratings' after attending type training/on-the-job training which did not cover all the models/variants included in such rating. For example, a licence endorsed with the rating Airbus A318/A319/A320/A321 (CFM56) after attending type training/on-the-job training covering only the Airbus 320 (CFM56).
- Type ratings which have been endorsed on a licence in accordance with <u>Appendix I to AMC to Part-66</u> 'List of Type Ratings' after a new variant has been added to the rating in Appendix I, without performing difference training. For example, a licence endorsed with the rating Boeing 737-600/700/800/900 for a person who already had the rating Boeing 737-600/700/800, without performing any difference training for the 737-900.
- Work being carried out on a model/variant for which the technical design and maintenance techniques have significantly evolved from the original model used in the type training/on-thejob training.
- Specific technology and options selected by each customer which may not have been covered by the type training/on-the-job training.
- Changes in the basic knowledge requirements of <u>Appendix I to Part-66</u> not requiring reexamination of existing licence holders (grandfathered privileges).
- The endorsement of group/subgroup ratings based on experience on a representative number of tasks/aircraft or based on type training/examination on a representative number of aircraft.
- Persons meeting the requirements of 6 months of experience every 2 years only on certain similar aircraft types as allowed by <u>AMC 66.A.20(b)2</u>.
- Persons holding a <u>Part-66</u> licence with limitations, obtained through conversion of national qualifications (<u>66.A.70</u>), where such limitations are going to be lifted after performing the corresponding basic knowledge examinations. In this case, the type ratings endorsed in the licence may have been obtained in the national system without covering all the aircraft systems (because of the previous limitations) and there will be a need to assess and, if applicable, to train this person on the missing systems.

Additional information is provided in AMC 145.A.35(a).

# GM 66.A.20(b)4 Privileges

ED Decision 2015/029/R

- 1. Holders of a <u>Part-66</u> aircraft maintenance licence may not exercise certification privileges unless they have a general knowledge of the language used within the maintenance environment including knowledge of common aeronautical terms in the language. The level of knowledge should be such that the licence holder is able to:
  - read and understand the instructions and technical manuals used for the performance of maintenance;
  - make written technical entries and any maintenance documentation entries, which can be understood by those with whom they are normally required to communicate;
  - read and understand the maintenance organisation procedures;
  - communicate at such a level as to prevent any misunderstanding when exercising certification privileges.

2. In all cases, the level of understanding should be compatible with the level of certification privileges exercised.

# 66.A.25 Basic knowledge requirements

Regulation (EU) 2021/700

- (a) For licences other than category L, an applicant for an aircraft maintenance licence, or for the addition of a category or subcategory to such a licence, shall demonstrate by examination a level of knowledge of the appropriate subject modules in accordance with Appendix I to Annex III (Part-66). The examination shall comply with the standard set out in <a href="Appendix II to Annex III">Appendix II to Annex III</a> (Part-66) and shall be conducted either by a training organisation appropriately approved in accordance with <a href="Annex IV">Annex IV</a> (Part-147), or by the competent authority.
- (b) An applicant for an aircraft maintenance licence in category L within a given subcategory, or for the addition of a different subcategory, shall demonstrate by examination a level of knowledge of the appropriate subject modules in accordance with <a href="Appendix VII to Annex III (Part-66">Appendix VII to Annex III (Part-66</a>). The examination shall comply with the standard set out in <a href="Appendix VIII to Annex III (Part-66">Appendix VIII to Annex III (Part-66</a>) and shall be conducted by a training organisation appropriately approved in accordance with <a href="Annex IV (Part-147">Annex IV (Part-147</a>), by the competent authority or as agreed by the competent authority.
  - The holder of an aircraft maintenance licence in subcategory B1.2 or category B3 is deemed to meet the basic knowledge requirements for a licence in subcategories L1C, L1, L2C and L2.
  - The basic knowledge requirements for subcategory L4H include the basic knowledge requirements for subcategory L3H.
  - The basic knowledge requirements for subcategory L4G include the basic knowledge requirements for subcategory L3G.
- (c) An applicant for an aircraft maintenance licence in category B2L for a particular 'system rating', or for the addition of another 'system rating', shall demonstrate by examination a level of knowledge of the appropriate subject modules in accordance with <u>Appendix I to Annex III (Part-66)</u>. The examination shall comply with the standard set out in <u>Appendix II to Annex III (Part-66)</u> and shall be conducted either by a training organisation appropriately approved in accordance with <u>Annex IV (Part-147)</u>, or by the competent authority.
- (d) The training courses and examinations shall have been passed within 10 years prior to the application for an aircraft maintenance licence or the addition of a category or subcategory to such a licence. Should this not be the case, examination credits may be obtained in accordance with point (e).
- (e) The applicant may apply to the competent authority for full or partial examination credits for the basic knowledge requirements for:
  - (i) basic knowledge examinations that do not meet the requirement laid down in point (d);
  - (ii) any other technical qualification considered by the competent authority to be equivalent to the knowledge standard of <u>Annex III (Part-66)</u>.

Credits shall be granted in accordance with <u>Subpart E of Section B</u> of this <u>Annex (Part-66)</u>.

(f) Credits expire 10 years after they were granted to the applicant by the competent authority. The applicant may apply for new credits after expiration.

### AMC 66.A.25 Basic knowledge requirements

ED Decision 2015/029/R

- For an applicant being a person qualified by holding an academic degree in an aeronautical, mechanical or electronic discipline from a recognised university or other higher educational institute the need for any examination will depend upon the course taken in relation to <u>Appendix I to Part-66</u>.
- 2. Knowledge gained and examinations passed during previous experiences, for example, in military aviation and civilian apprenticeships will be credited where the competent authority is satisfied that such knowledge and examinations are equivalent to that required by <a href="Appendix I to Part-66">Appendix I to Part-66</a>.

# GM 66.A.25(a) Basic knowledge requirements

ED Decision 2020/002/R

The levels of knowledge for each licence (sub)category are directly related to the complexity of the certifications related to the corresponding licence (sub)category, which means that category A should demonstrate a limited but adequate level of knowledge, whereas category B1, B2, B2L and B3 should demonstrate a complete level of knowledge in the appropriate subject modules.

# GM 66.A.25(b) Basic knowledge requirements

ED Decision 2019/009/R

'Or as agreed by the competent authority' refers to the examination that is conducted by an organisation under a formal agreement (and oversight) of the competent authority.

# 66.A.30 Basic experience requirements

Regulation (EU) 2018/1142

- (a) An applicant for an aircraft maintenance licence shall have acquired:
  - 1. for category A, subcategories B1.2 and B1.4 and category B3:
    - (i) 3 years of practical maintenance experience on operating aircraft, if the applicant has no previous relevant technical training; or
    - 2 years of practical maintenance experience on operating aircraft and completion of training considered relevant by the competent authority as a skilled worker, in a technical trade; or
    - (iii) 1 year of practical maintenance experience on operating aircraft and completion of a basic training course approved in accordance with <a href="Annex IV">Annex IV</a> (Part-147);
  - 2. for category B2 and subcategories B1.1 and B1.3:
    - (i) 5 years of practical maintenance experience on operating aircraft if the applicant has no previous relevant technical training; or
    - (ii) 3 years of practical maintenance experience on operating aircraft and completion of training considered relevant by the competent authority as a skilled worker, in a technical trade; or
    - (iii) 2 years of practical maintenance experience on operating aircraft and completion of a basic training course approved in accordance with <a href="Annex IV (Part-147">Annex IV (Part-147)</a>;

#### 2a. for category B2L:

- 3 years of practical maintenance experience in operating aircraft, covering the corresponding system rating(s), if the applicant has no previous relevant technical training; or
- (ii) 2 years of practical maintenance experience in operating aircraft, covering the corresponding system rating(s), and completion of training, considered relevant by the competent authority, as a skilled worker in a technical trade; or
- (iii) 1 year of practical maintenance experience in operating aircraft, covering the corresponding system rating(s), and completion of a Part-147 approved basic training course. For the addition of (a) new system rating(s) to an existing B2L licence, 3 months of practical maintenance experience relevant to the new system rating(s) shall be required for each system rating added.

#### 2b. for category L:

- 2 years of practical maintenance experience in operating aircraft covering a representative cross section of maintenance activities in the corresponding subcategory;
- (ii) as a derogation from point (i), 1 year of practical maintenance experience in operating aircraft covering a representative cross section of maintenance activities in the corresponding subcategory, subject to the introduction of the limitation provided for in point 66.A.45(h)(ii)(3).

For the inclusion of an additional subcategory in an existing L licence, the experience required by points (i) and (ii) shall be 12 and 6 months respectively.

The holder of an aircraft maintenance licence in category/subcategory B1.2 or B3 is deemed to meet the basic experience requirements for a licence in subcategories L1C, L1, L2C and L2.

- 3. for category C with respect to complex motor-powered aircraft:
  - 3 years of experience exercising category B1.1, B1.3 or B2 privileges on complex motor-powered aircraft or as support staff according to point <u>145.A.35</u>, or, a combination of both; or
  - 5 years of experience exercising category B1.2 or B1.4 privileges on complex motorpowered aircraft or as support staff according to point <u>145.A.35</u>, or a combination of both;
- 4. for category C with respect to other than complex motor-powered aircraft: 3 years of experience exercising category B1 or B2 privileges on other than complex motor-powered aircraft or as support staff according to point 145.A.35, or a combination of both;
- 5. for category C obtained through the academic route: an applicant holding an academic degree in a technical discipline, from a university or other higher educational institution recognised by the competent authority, 3 years of experience working in a civil aircraft maintenance environment on a representative selection of tasks directly associated with aircraft maintenance including 6 months of observation of base maintenance tasks.
- (b) An applicant for an extension to an aircraft maintenance licence shall have a minimum civil aircraft maintenance experience requirement appropriate to the additional category or subcategory of licence applied for as defined in <a href="Appendix IV to this Annex (Part-66)">Appendix IV to this Annex (Part-66)</a>.

Annex III (Part-66)

SECTION A — TECHNICAL

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- (c) The experience shall be practical and involve a representative cross section of maintenance tasks on aircraft.
- (d) At least 1 year of the required experience shall be recent maintenance experience on aircraft of the category/subcategory for which the initial aircraft maintenance licence is sought. For subsequent category/subcategory additions to an existing aircraft maintenance licence, the additional recent maintenance experience required may be less than 1 year, but shall be at least 3 months. The required experience shall be dependent upon the difference between the licence category/subcategory held and applied for. Such additional experience shall be typical of the new licence category/subcategory sought.
- (e) Notwithstanding point (a), aircraft maintenance experience gained outside a civil aircraft maintenance environment shall be accepted when such maintenance is equivalent to that required by this <a href="Annex">Annex</a> (Part-66) as established by the competent authority. Additional experience of civil aircraft maintenance shall, however, be required to ensure adequate understanding of the civil aircraft maintenance environment.
- (f) Experience shall have been acquired within the 10 years preceding the application for an aircraft maintenance licence or the addition of a category or subcategory to such a licence.

### AMC 66.A.30(a) Basic experience requirements

ED Decision 2020/002/R

- 1. For a category C applicant holding an academic degree the representative selection of tasks should include the observation of hangar maintenance, maintenance planning, quality assurance, record-keeping, approved spare parts control and engineering development.
- 2. While an applicant to a category C licence may be qualified by having 3 years experience as category B1 or B2 certifying staff only in line maintenance, it is however recommended that any applicant to a category C holding a B1 or B2 licence demonstrate at least 12 months experience as a B1 or B2 support staff.
- A skilled worker is a person who has successfully completed a training, acceptable to the competent authority, involving the manufacture, repair, overhaul or inspection of mechanical, electrical or electronic equipment. The training would include the use of tools and measuring devices.
- 4. Maintenance experience on operating aircraft:
  - means the experience of being involved in maintenance tasks on aircraft which are being operated by airlines, air taxi organisations, aero clubs, owners, etc., as relevant to the licence category/subcategory;
  - should cover a wide range of tasks in terms of length, complexity and variety;
  - aims at gaining sufficient experience in the real environment of maintenance as opposed to only the training school environment;
  - may be gained within different types of maintenance organisations (<u>Part-145</u>, <u>M.A. Subpart F</u>, Part-CAO, FAR-145, etc.) or under the supervision of independent certifying staff;
  - May be combined with <u>Part-147</u> approved training (or other training approved by the competent authority) so that periods of training can be intermixed with periods of experience, similar to an apprenticeship;

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- may be full-time or part-time, either as professional or on a voluntary basis;
- in the case of the L licence, it is acceptable that the 1 or 2 years of experience required by 66.A.30(a)(2b) covers maintenance performed only during the weekends (or equivalent periods) as long as the applicant has achieved a sufficient level of competency related to the applicable licence subcategory as attested by the corresponding statement(s) issued by the maintenance organisation(s) or independent certifying staff that supervised the applicant.
- 5. In the case of an applicant for a licence including several categories/subcategories, it is acceptable to combine the periods of experience as long as there is a sufficient experience for each category/subcategory during the required period. Examples:
  - Application for a B1.1 (turbine aeroplanes) + B1.3 (turbine helicopters): The Regulation requires 5 years of experience for B1.1 and 5 years of experience for B1.3 for an applicant with no relevant previous technical training:
    - It is not acceptable to combine the experience in a single 5-year period where the applicant has been working for 3 years on turbine aeroplanes and 2 years on turbine helicopters.
    - However, it is acceptable to combine the experience in a single 5-year period if the
      applicant has been working for 5 years on turbine aeroplanes and turbine
      helicopters (for example, aeroplanes in the morning, helicopters in the afternoon,
      or a few days every week on aeroplanes and a few days every week on helicopters).
  - Application for a B1.1 (turbine aeroplanes) + B2 (avionics): The Regulation requires 5 years of experience for B1.1 and 5 years of experience for B2 for an applicant with no relevant previous technical training.
    - It is not acceptable to combine the experience in a single 5-year period where the applicant has been working for 3 years on turbine aeroplanes (with no avionics work) and 2 years on avionics systems.
    - However, it is acceptable to combine the experience in a single 5-year period if the applicant has been working for 5 years on structures, powerplant, mechanical and electrical systems and avionics (for B1.1 tasks in the morning, B2 tasks in the afternoon, or a few days every week for B1.1 tasks and a few days every week for B2 tasks).
  - Application for a B1.1, B1.2, B1.3, B1.4 and B2: The Regulation requires 5 years of experience for B1.1, B1.3 and B2 and 3 years of experience for B1.2 and B1.4 for an applicant with no relevant previous technical training.
    - In this case, it is very unlikely that the experience for each category/subcategory would be sufficient.

# AMC 66.A.30(c) Basic experience requirements

ED Decision 2019/009/R

In the case of the category B2L licence, the sentence 'a representative cross section of maintenance tasks on aircraft' refers to the person that has carried out some maintenance tasks that are representative of the systems corresponding to the system ratings for which he/she applies (see 66.A.3). These tasks may include troubleshooting, modifications or repairs.

### AMC 66.A.30(d) Basic experience requirements

ED Decision 2015/029/R

To be considered as recent experience; at least 50% of the required 12-month recent experience should be gained within the 12 month period prior to the date of application for the aircraft maintenance licence. The remainder of the recent experience should have been gained within the 7-year period prior to application. It must be noted that the rest of the basic experience required by 66.A.30 must be obtained within the 10 years prior to the application as required by 66.A.30(f).

# AMC 66.A.30(e) Basic experience requirements

ED Decision 2020/002/R

- 1. For categories A and L, the additional experience should be a minimum of 6 months in a civil aircraft maintenance environment. For categories B1, B2, B2L or B3, the additional experience should be a minimum of 12 months in a civil aircraft maintenance environment.
- 2. Aircraft maintenance experience gained outside a civil aircraft maintenance environment may include aircraft maintenance experience gained in armed forces, coast guards, police etc. or in aircraft manufacturing.

### 66.A.40 Continued validity of the aircraft maintenance licence

Regulation (EU) No 1321/2014

- (a) The aircraft maintenance licence becomes invalid 5 years after its last issue or change, unless the holder submits his/her aircraft maintenance licence to the competent authority that issued it, in order to verify that the information contained in the licence is the same as that contained in the competent authority records, pursuant to point 66.8.120.
- (b) The holder of an aircraft maintenance licence shall complete the relevant parts of <a href="EASA Form 19">EASA Form 19</a> (see Appendix V) and submit it with the holder's copy of the licence to the competent authority that issued the original aircraft maintenance licence, unless the holder works in a maintenance organisation approved in accordance with <a href="Annex II">Annex II</a> (Part-145) that has a procedure in its exposition whereby such organisation may submit the necessary documentation on behalf of the aircraft maintenance licence holder.
- (c) Any certification privilege based upon a aircraft maintenance licence becomes invalid as soon as the aircraft maintenance licence is invalid.
- (d) The aircraft maintenance licence is only valid (i) when issued and/or changed by the competent authority and (ii) when the holder has signed the document.

# GM 66.A.40 Continued validity of the aircraft maintenance licence

D Decision 2015/029/R

The validity of the aircraft maintenance licence is not affected by recency of maintenance experience whereas the validity of the <u>66.A.20</u> privileges is affected by maintenance experience as specified in <u>66.A.20(a)</u>.



### 66.A.45 Endorsement with aircraft ratings

Regulation (EU) 2019/1383

- (a) In order to be entitled to exercise certification privileges on a specific aircraft type, the holder of an aircraft maintenance licence needs to have their licence endorsed with the relevant aircraft ratings:
  - For category B1, B2 or C, the relevant aircraft ratings are the following:
    - (i) for Group 1 aircraft, the appropriate aircraft type rating;
    - (ii) for Group 2 aircraft, the appropriate aircraft type rating, manufacturer subgroup rating or full subgroup rating;
    - (iii) for Group 3 aircraft, the appropriate aircraft type rating or full group rating;
    - (iv) for Group 4 aircraft, for the category B2 licence, the full group rating.
  - For category B2L, the relevant aircraft ratings are the following:
    - (i) for Group 2 aircraft, the appropriate manufacturer subgroup rating or full subgroup rating;
    - (ii) for Group 3 aircraft, the full group rating;
    - (iii) for Group 4 aircraft, the full group rating.
  - For category B3, the relevant rating is 'piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below'.
  - For category L, the relevant aircraft ratings are the following:
    - (i) for subcategory L1C, the rating 'composite sailplanes';
    - (ii) for subcategory L1, the rating 'sailplanes';
    - (iii) for subcategory L2C, the rating 'composite powered sailplanes and composite ELA1 aeroplanes';
    - (iv) for subcategory L2, the rating 'powered sailplanes and ELA1 aeroplanes';
    - (v) for subcategory L3H, the rating 'hot-air balloons';
    - (vi) for subcategory L3G, the rating 'gas balloons'
    - (vii) for subcategory L4H, the rating 'hot-air airships';
    - (viii) for subcategory L4G, the rating 'ELA2 gas airships';
    - (ix) for subcategory L5, the appropriate airship type rating.
  - For category A, no rating is required, subject to compliance with the requirements of point 145.A.35 of Annex II (Part-145).
- (b) The endorsement of aircraft type ratings requires the satisfactory completion of one of the following:
  - the relevant category B1, B2 or C aircraft type training in accordance with <u>Appendix III to</u>
     Annex III (Part-66);
  - in the case of gas airship type ratings on a B2 or L5 licence, a type training approved by the competent authority in accordance with point 66.B.130.

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- (c) For other than category C licences, in addition to the requirements of point (b), the endorsement of the first aircraft type rating within a given category/subcategory requires satisfactory completion of the corresponding on-the-job training. This on-the-job training shall comply with <a href="Appendix III to Annex III (Part-66">Annex III (Part-66</a>), except in the case of gas airships, where it shall be directly approved by the competent authority.
- (d) By derogation from points (b) and (c), for Group 2 and 3 aircraft, aircraft type ratings may also be endorsed on a licence after completing the following steps:
  - satisfactory completion of the relevant category B1, B2 or C aircraft type examination in accordance with Appendix III to this Annex (Part-66);
  - in the case of B1 and B2 category, demonstration of practical experience in the aircraft type. In that case, the practical experience shall include a representative cross section of maintenance activities relevant to the licence category.

In the case of a category C rating, for a person qualified through the academic route as referred to in point (a)(5) of point <u>66.A.30</u>, the first relevant aircraft type examination shall be at the category B1 or B2 level.

#### (e) For Group 2 aircraft:

- the endorsement of manufacturer subgroup ratings for category B1 and C licence holders requires complying with the aircraft type rating requirements for at least two aircraft types from the same manufacturer, which combined are representative of the applicable manufacturer subgroup;
- (ii) the endorsement of full subgroup ratings for category B1 and C licence holders requires complying with the aircraft type rating requirements for at least three aircraft types from different manufacturers, which combined are representative of the applicable subgroup;
- (iii) the endorsement of manufacturer subgroup and full subgroup ratings for category B2 and B2L licence holders requires demonstration of practical experience which shall include a representative cross section of maintenance activities relevant to the licence category and to the applicable aircraft subgroup and, in the case of the B2L licence, relevant to the applicable system rating(s);
- (iv) by derogation from point (e)(iii), the holder of a B2 or B2L licence, endorsed with a full subgroup 2b, is entitled to be endorsed with a full subgroup 2c.

#### (f) For Group 3 and 4 aircraft:

- (i) the endorsement of the full Group 3 rating for category B1, B2, B2L and C licence holders and the endorsement of the full Group 4 rating for B2 and B2L licence holders require demonstration of practical experience, which shall include a representative cross section of maintenance activities relevant to the licence category and to Group 3 or 4, as applicable;
- (ii) for category B1, unless the applicant provides evidence of appropriate experience, Group 3 rating shall be subject to the following limitations, which shall be endorsed on the licence:
  - pressurised aeroplanes,
  - metal-structure aeroplanes,
  - composite-structure aeroplanes,
  - wooden-structure aeroplanes,

- aeroplanes with metal-tubing structure covered with fabric;
- (iii) by derogation from point (f)(i), the holder of a B2L licence, endorsed with a full subgroup 2a or 2b, is entitled to be endorsed with Groups 3 and 4.

#### (g) For the B3 licence:

- (i) the endorsement of the rating 'piston engine non-pressurised aeroplanes of 2 000 kg MTOM and below' requires demonstration of practical experience, which shall include a representative cross section of maintenance activities relevant to the licence category;
- (ii) unless the applicant provides evidence of appropriate experience, the rating referred to in point (i) shall be subject to the following limitations, which shall be endorsed on the licence:
  - wooden-structure aeroplanes,
  - aeroplanes with metal-tubing structure covered with fabric,
  - metal-structure aeroplanes,
  - composite-structure aeroplanes.
- (h) For all L licence subcategories, other than L5:
  - the endorsement of ratings requires demonstration of practical experience which shall include a representative cross section of maintenance activities relevant to the licence subcategory;
  - (ii) unless the applicant provides evidence of appropriate experience, the ratings shall be subject to the following limitations, which shall be endorsed on the licence:
    - (1) for ratings 'sailplanes' and 'powered sailplanes and ELA1 aeroplanes':
      - wooden-structure aircraft covered with fabric,
      - aircraft with metal-tubing structure covered with fabric,
      - metal-structure aircraft,
      - composite-structure aircraft,
    - (2) for the rating 'gas balloons':
      - other than ELA1 gas balloons; and
    - (3) if the applicant has only provided evidence of one-year experience in accordance with the derogation contained in point 66.A.30(a)(2b)(ii), the following limitation shall be endorsed on the licence:

'complex maintenance tasks provided for in <u>Appendix VII to Annex I (Part-M)</u>, standard changes provided for in point 21.A.90B of Annex I (Part-21) to Regulation (EU) No 748/2012 and standard repairs provided for in point 21.A.431B of Annex I (Part-21) to Regulation (EU) No 748/2012.'

The holder of an aircraft maintenance licence in subcategory B1.2 endorsed with the Group 3 rating, or in category B3 endorsed with the rating 'piston engine non-pressurised aeroplanes of 2 000 kg MTOM and below', is deemed to meet the requirements for the issuance of a licence in subcategories L1 and L2 with the corresponding full ratings and with the same limitations as the B1.2/B3 licence held.

Annex III (Part-66)

SECTION A — TECHNICAL

REQUIREMENTS

### GM 66.A.45 Endorsement with aircraft ratings

ED Decision 2020/002/R

The following table shows a summary of the aircraft rating requirements contained in <u>66.A.45</u>, <u>66.A.50</u> and Appendix III to Part-66.

The table contains the following:

- The different aircraft groups.
- For each licence (sub)category, which ratings are possible (at the choice of the applicant):
  - Individual type ratings.
  - Full and/or Manufacturer (sub)group ratings
- For each rating option, which are the qualification options.
- For the B1.2 licence (Group 3 aircraft), the B3 licence (piston-engine non-pressurised aeroplanes
  of 2 000 kg MTOM and below) and the L licences, which are the possible limitations and ratings
  to be included in the licence if not sufficient experience can be demonstrated in those areas.

Note: OJT means 'On-the-Job Training' (<u>Appendix III to Part-66, Section 6</u>) and is only required for the first aircraft rating in the licence (sub)category.

Aircraft rating requirements							
Aircraft	B1/B3/L licence	B2/B2L licence	C licence				
Group 1 aircraft, except	(For B1)	(For B2)					
<u>airships</u>							
	Individual TYPE RATING	Individual TYPE RATING	Individual TYPE RATING				
- Complex motor-							
powered aircraft.	Type training:	Type training:	Type training:				
<ul> <li>Multiple engine helicopters.</li> </ul>	<ul><li>Theory + examination</li><li>Practical + assessment</li></ul>	<ul><li>Theory + examination</li><li>Practical + assessment</li></ul>	- Theory + examination				
- Aeroplanes certified	PLUS	PLUS					
above FL290.	OJT (for first aircraft in	OJT (for first aircraft in					
- Aircraft equipped with	licence subcategory)	licence subcategory)					
fly-by-wire.							
- Other aircraft when							
defined by the Agency.	,	/\					
Group 1 airships	(For L5 licence)	(For B2)					
	Individual TYPE RATING	Individual TYPE RATING					
	Type training:	Type training:					
	- Theory + examination	- Theory + examination	Not applicable				
	- Practical + assessment	- Practical + assessment					
	PLUS	PLUS					
	OJT (for first aircraft in	OJT (for first aircraft in					
	licence subcategory)	licence category)					
Group 2 aircraft	(For B1.1, B1.3, B1.4)	(For B2)					
Subgroups:	Individual TYPE RATING	Individual TYPE RATING	Individual TYPE RATING				
	(type training + OJT) or	(type training + OJT) or	type training <b>or</b> type				
2a: single turboprop	(type examination +	(type examination +	examination				
aeroplanes (*)	practical experience)	practical experience)					
2b: single turbine	Full SUBGROUP RATING	(For B2 and B2L)	Full SUBGROUP RATING				
engine helicopters (*)	(type training + OJT) or		type training <b>or</b> type				
	(type examination +	Full SUBGROUP RATING	examination on at least				
2c: single piston	practical experience) on	based on demonstration	3 aircraft representative				
engine helicopters (*)	at least 3 aircraft representative of that	of practical experience	of that subgroup				
(*) Except those	subgroup						
classified in Group 1.	0						
·	Manufacturer	Manufacturer	Manufacturer				
	SUBGROUP RATING	SUBGROUP RATING	SUBGROUP RATING				
	(type training + OJT)	based on demonstration	type training <b>or</b> type				
	or (type examination +	of practical experience	examination on at least				
	practical experience) on at least 2 aircraft		2 aircraft representative of that manufacturer				
	representative		subgroup				
	of that manufacturer		0				
	subgroup						

Annex III (Part-66)

SECTION A — TECHNICAL

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Aircraft rating requirements							
Aircraft	B1/B3/L licence	B2/B2L licence C licence					
Group 3 aircraft	(For B1.2)	(For B2)					
Piston engine aeroplanes (except those classified in Group 1)	Individual TYPE RATING (type training + OJT) or (type examination + practical experience)  Full GROUP 3 RATING based on demonstration of practical experience	Individual TYPE RATING (type training + OJT) or (type examination + practical experience)  (For B2 and B2L)  Full GROUP 3 RATING	Individual TYPE RATING type training or type examination Full GROUP 3				
	Limitations: - Pressurized aeroplanes - Metal aeroplanes - Composite aeroplanes - Wooden aeroplanes - Metal tubing & fabric Aeroplanes	based on demonstration of appropriate experience	RATING based on demonstration of practical experience				
Piston-engine non- pressurised aeroplanes of 2 000 kg MTOM and below	(For B3)  FULL RATING "Piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below" based on demonstration of practical experience Limitations:  - Metal aeroplanes  - Composite aeroplanes  - Wooden aeroplanes  - Metal tubing & fabric aeroplanes	This rating cannot be endorsed on a B2/B2L licence. These aircraft are already covered by the endorsement of ratings for Group 3 aircraft (see box above)	This rating cannot be endorsed on a C licence. These aircraft are already covered by the endorsement of ratings for Group 3 aircraft (see box above)				
Group 4 aircraft:  Sailplanes, powered sailplanes, balloons and airships other than those in Group 1	(For all L subcategories, except L5)  - For L1C: 'composite sailplanes' rating, - For L1: 'sailplanes' rating, - For L2C: 'composite powered sailplanes and composite ELA1 aeroplanes' rating, - For L2: 'powered sailplanes and ELA1 aeroplanes' rating, - For L3H: 'hot-air balloons' rating, - For L3G: 'gas balloons' rating, - For L4H: 'hot-air airships' rating, - For L4G: 'ELA2 gas airships' rating, all based on demonstration of practical experience  Limitations: see 66.A.45(h)	(For B2 and B2L)  Full GROUP 4 RATING based on demonstration of practical experience	Not applicable				

# GM 66.A.45(b) Endorsement with aircraft ratings

ED Decision 2020/002/R

An aircraft type rating includes all the aircraft models/variants listed in column 2 of <a href="Appendix I to AMC">Appendix I to AMC</a> to Part-66.

When a person already holds a type rating on the licence and such type rating is amended in the <u>Appendix I to AMC to Part-66</u> in order to include additional models/variants, there is no need for additional type training for the purpose of amending the type rating in the licence. The rating should be amended to include the new variants, upon request by the applicant, without additional requirements. However, it is the responsibility of the licence holder and, if applicable, the maintenance organisation where he/she is employed to comply with <u>66.A.20(b)3</u>, <u>145.A.35(a)</u>, <u>M.A.607(a)</u>, and <u>CAO.A.040</u> as applicable, before he/she exercises certification privileges.

Similarly, type training courses covering certain, but not all the models/variants included in a type rating, are valid for the purpose of endorsing the full type rating.

### AMC 66.A.45(d);(e)3;(f)1;(g)1;(h) Endorsement with aircraft ratings

ED Decision 2019/009/R

- 1. The 'practical experience' should cover a representative cross section including at least:
  - for categories B1, B2, B2L and B3: 50 % of the tasks contained in <u>Appendix II</u> to the AMC relevant to the licence category and to the applicable aircraft type ratings or aircraft (sub)group ratings being endorsed;
  - for category L:
    - in the subcategories L1, L1C, L2 or L2C: 50 % as in the paragraph related to B1, B2,
       B2L or B3;
    - in the subcategories L3H and L3G for 'Balloons' or L4H, L4G and L5 for 'Airships', 80 % of the tasks should be demonstrated, and should include the tasks identified with an asterisk (\*) in the Appendix;

This experience should cover tasks from each paragraph of the Appendix II list. Other tasks than those in the Appendix II may be considered as a replacement when they are relevant. In the case of (sub)group ratings, this experience may be shown by covering one or several aircraft types of the applicable (sub)group and may include experience on aircraft classified in group 1, 2 and/or 3 as long as the experience is relevant. The practical experience should be obtained under the supervision of authorised certifying staff.

- 2. In the case of endorsement of individual type ratings for Group 2 and Group 3 aircraft, for the second aircraft type of each manufacturer (sub)group the practical experience should be reduced to 30% of the tasks contained in <a href="Appendix II">Appendix II</a> to AMC relevant to the licence category and to the applicable aircraft type. For subsequent aircraft types of each manufacturer (sub) group this should be reduced to 20%.
- 3. Practical experience should be demonstrated by the submission of records or a log book showing the Appendix II tasks performed by the applicant. Typical data to be recorded are similar to those described in AMC 66.A.20(b)2.

### AMC 66.A.45(e) Endorsement with aircraft ratings

ED Decision 2015/029/R

- 1. For the granting of manufacturer subgroup ratings for Group 2 aircraft, for B1 and C licence holders, the sentence 'at least two aircraft types from the same manufacturer which combined are representative of the applicable manufacturer subgroup' means that the selected aircraft types should cover the technologies relevant to the manufacturer subgroup in the following areas:
  - Flight control systems (mechanical controls/hydromechanically powered controls / electromechanically powered controls); and
  - Avionic systems (analogue systems / digital systems); and
  - Structure (manufactured of metal / composite / wood).

In cases where there are very different aircraft types within the same manufacturer subgroup, it may be necessary to cover more than two aircraft types to ensure adequate representation.

For this purpose it may be possible to use aircraft types from the same manufacturer classified in Group 1 as long as the selected aircraft belong to the same licence subcategory for which the rating will be endorsed.

- 2. For the granting of full subgroup ratings for Group 2 aircraft, for B1 and C licence holders, the sentence 'at least three aircraft types from different manufacturers which combined are representative of the applicable subgroup' means that the selected aircraft types should cover all the technologies relevant to the manufacturer subgroup in the following areas:
  - Flight control systems (mechanical controls/hydromechanically powered controls / electromechanically powered controls); and
  - Avionic systems (analogue systems / digital systems); and
  - Structure (manufactured of metal / composite / wood).

In cases where there are very different aircraft types within the same subgroup, it may be necessary to cover more than three aircraft types to ensure adequate representation.

For this purpose it may be possible to use aircraft types from different manufacturers classified in Group 1 as long as the selected aircraft belong to the same licence subcategory for which the rating will be endorsed.

3. For manufacturer subgroup ratings, the term 'manufacturer' means the TC holder defined in the certification data sheet, which is reflected in the list of type ratings in <a href="Appendix I to AMC to Part-66">Appendix I to AMC to Part-66</a>.

In the case of an aircraft rating where the type rating refers to a TC holder made of a combination of two manufacturers which produce a similar aircraft (i.e. AGUSTA / BELL HELICOPTER TEXTRON or any case of aircraft similarly built by another manufacturer) this combination should be considered as one manufacturer.

#### As a consequence:

- When a licence holder gets a manufacturer type or a manufacturer subgroup rating made of a combination of manufacturers, it covers the combination of such manufacturers.
- When a licence holder who intends to endorse a full subgroup rating selects three aircraft from different manufacturers, this means from different combinations of manufacturers as applicable.

### GM 66.A.45(h)2 Endorsement with aircraft ratings

ED Decision 2019/009/R

For subcategories L1 and L2, it is possible to endorse the corresponding ratings with limitations depending on the type of structures covered by the experience gained.

For subcategory L3G, it is possible to endorse the rating 'gas balloons' with a limitation to 'other than ELA1 gas balloons' if the experience gained only covers ELA1 gas balloons.

However, no limitations are possible for the subcategories L1C, L2C, L3H, L4H and L4G. The ratings on these licences can only be obtained after demonstration of the appropriate experience representative of the full scope of the licence subcategory.

### 66.A.50 Limitations

Regulation (EU) 2018/1142

- (a) Limitations introduced on an aircraft maintenance licence are exclusions from the certification privileges and, in the case of limitations referred to in point 66.A.45, they affect the aircraft in its entirety.
- (b) For limitations referred to in point <u>66.A.45</u>, limitations shall be removed upon:
  - 1. demonstration of appropriate experience; or
  - 2. after a satisfactory practical assessment performed by the competent authority.
- (c) For limitations referred to in point <u>66.A.70</u>, limitations shall be removed upon satisfactory completion of examination on those modules/subjects defined in the applicable conversion report referred to in point <u>66.B.300</u>.

### AMC 66.A.50(b) Limitations

ED Decision 2020/002/R

- 1. The appropriate experience required to remove the limitations referred to in 66.A.45(f),(g) and (h) should consist of the performance of a variety of tasks appropriate to the limitations under the supervision of authorised certifying staff. This should include the tasks required by a scheduled annual inspection. Alternatively, this experience may also be gained, if agreed by the competent authority, by theoretical and practical training provided by the manufacturer, as long as an assessment is further carried out and recorded by this manufacturer.
- 2. It is acceptable to have this experience in just one aircraft type, provided this type is representative of the (sub)group in relation to the limitation being removed.
- 3. It is acceptable that this experience is gained in aircraft not covered by the Basic Regulation, provided that this experience is relevant and representative of the corresponding (sub)group. An example could be the experience required to remove a limitation such as 'aircraft with metal tubing structure covered with fabric', which may be gained in ultralight aircraft (Annex I aircraft).
- 4. The application for the limitation removal should be supported by a record of experience signed by the authorised certifying staff or by an assessment signed by the manufacturer after completion of the applicable theoretical and practical training.

### 66.A.55 Evidence of qualification

Regulation (EU) No 1321/2014

Personnel exercising certification privileges as well as support staff shall produce their licence, as evidence of qualification, within 24 hours upon request by an authorised person.

### **66.A.70 Conversion provisions**

Regulation (EU) 2018/1142

- (a) The holder of a certifying staff qualification valid in a Member State, prior to the date of entry into force of <a href="Annex III (Part-66">Annex III (Part-66</a>) shall be issued an aircraft maintenance licence by the competent authority of this Member State without further examination subject to the conditions specified in <a href="Section B Subpart D">Section B Subpart D</a>.
- (b) A person undergoing a certifying staff qualification process valid in a Member State, prior to the date of entry into force of <a href="Annex III">Annex III</a> (Part-66) may continue to be qualified. The holder of a certifying staff qualification gained following such process shall be issued an aircraft maintenance licence by the competent authority of this Member State without further examination subject to the conditions specified in <a href="Section B Subpart D">Section B Subpart D</a>.
- (c) Where necessary, the aircraft maintenance licence shall contain limitations in accordance with point 66.A.50 to reflect the differences between:
  - (i) the scope of the certifying staff qualification valid in the Member State before the entry into force of the applicable licence category or subcategory provided for in this Annex (Part-66);
  - (ii) the basic knowledge requirements and the basic examination standards laid down in Appendices I and II to this Annex (Part-66).
- (d) By derogation from point (c), for aircraft not used by licenced air carriers in accordance with Regulation (EC) No 1008/2008, other than complex motor-powered aircraft, and for balloons, sailplanes, motor-powered sailplanes and airships, the aircraft maintenance licence shall contain limitations in accordance with point 66.A.50 to ensure that the certifying staff privileges valid in the Member State before the entry into force of the applicable Part-66 licence category/subcategory and those of the converted Part-66 aircraft maintenance licence remain the same.

# **GM 66.A.70 Conversion provisions**

ED Decision 2019/009/R

1. As described in point <u>66.A.70</u>, the conversion provisions apply to the holder of a certifying staff qualification valid in a Member State prior to the date of entry into force of <u>Annex III (Part-66)</u>. The sentence 'the holder of a certifying staff qualification valid in a Member State' means any person who had a qualification valid in that Member State allowing that person the performance of activities identical to the privileges of 'certifying staff' contained in Regulation (EU) 1321/2014. This means that the signature of that person was sufficient to declare that the maintenance had been properly performed and the aircraft was ready for service and fit for flight in respect to such maintenance.

This should not been mistaken with the responsibilities linked to the airworthiness review, which was performed at different periods (typically varying from 6 months to 3 years) in the national systems. This is an activity which is performed at very specific points of time and not after every maintenance activity. Since an airworthiness review (or equivalent term used in the

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national systems) is not performed after every maintenance event before the aircraft takes flight, an airworthiness review cannot be considered as a maintenance release. This means that the conversion provisions described in <u>66.A.70</u> are not applicable to persons performing airworthiness review functions unless their signature was required after every maintenance event before the aircraft can take flight.

- 2. The conversion applies to 'certifying staff qualifications' such as, for example:
  - holding a national licence (or completed the process to obtain such a national licence);
  - having completed a qualification process defined by the competent authority, or equivalent body under the national system, to become certifying staff;
  - having completed the qualification requirements for certifying staff within a maintenance organisation, as defined in their procedures.

This does not mean that in order to be entitled to a conversion process, the applicant has to be exercising certification privileges. A person may hold a 'certifying staff qualification' while not having certification privileges (or while exercising very limited certification privileges below his/her qualification) for different reasons such as, for example, the following:

- The person is working as 'support staff' in the base maintenance environment;
- The person has been authorised only for a very limited range of tasks (lower than what he/she would be entitled if his/her qualification is considered) since the person is working in a line station where the scope of tasks is very limited;
- The person holds a licence with a wider scope than the scope of the organisation where he/she is employed;
- The person is working outside the aviation industry or is temporarily on leave due to different reasons (medical, personal, etc).

These persons are entitled to have the conversion performed in accordance with the full scope of their qualification and the full privileges that they would be entitled to hold on the basis of such qualification.

- 3. As described in point <u>66.A.70</u>, certifying staff qualifications eligible for conversion are those valid 'prior to the date of entry into force of Annex III (Part-66)', which means those qualifications valid before the following dates:
  - 28 September 2005 for aircraft above 5 700 kg MTOM;
  - 28 September 2006 for aircraft of 5 700 kg MTOM and below.

Nevertheless, since the B3, B2L and L licences did not exist at those dates, certifying staff qualifications eligible for conversion to a B3, B2L and L licence are those valid before the competent authority had the obligation to start issuing such licences, which means the following:

- for the B3 licence, those qualifications valid before 28 September 2012;
- for the B2L licence, those qualifications valid before 5 March 2019;
- for the L licence, those qualifications valid before 1 October 2019.
- 4. Although only those certifying staff qualifications gained prior to the dates indicated above are eligible for conversion, this does not mean that the application for conversion has to be

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submitted prior to those dates. The applicant is entitled to have the conversion performed irrespective of when he/she applies for conversion.

5. A certifying staff qualification can be subject to more than one conversion process and can also be converted to more than one licence (sub)category (with any applicable limitations). This could be the case, for example, of a person who already had the certifying staff qualification converted in the past to a B1.2 licence with limitations linked to some missing elements of the Part-66 Appendix I and II standard (following 66.A.70(c)). This person would be entitled to apply and have his/her certifying staff qualification converted to a B1.2 or a B3 or L licence on the basis of 66.A.70(d), which would mean no need to compare with the Part-66 Appendix I, II or VII standard, introducing only those limitations required in order to maintain the existing privileges.

### GM 66.A.70(c) Conversion provisions

ED Decision 2015/029/R

For example, a limitation could be where a person holds a pre-existing certifying staff qualification which covered, to the standard of <a href="Part-66 Appendix I">Part-66 Appendix I</a> and II, all the modules/subjects corresponding to the B1 licence except for electrical power systems. This person would be issued a <a href="Part-66">Part-66</a> aircraft maintenance licence in the B1 category with a limitation (exclusion) on electrical power systems.

For removal of limitations, refer to 66.A.50(c).

### GM 66.A.70(d) Conversion provisions

ED Decision 2020/002/R

For aircraft not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 other than complex motor-powered aircraft, an example of limitations could be where a person holds a pre-Part-66 qualification which covered privileges to release work performed on aircraft structures, powerplant, mechanical and electrical systems but excluded privileges on aircraft equipped with turbine engine, aircraft above 2 000 kg MTOM, pressurised aircraft and aircraft equipped with retractable landing gear. This person would be issued with a Part-66 aircraft maintenance licence in the B1.2 or B3 (sub)category with the following limitations (exclusions):

- aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 (this limitation always exists);
- aircraft above 2 000 kg MTOM;
- pressurised aircraft;
- aircraft equipped with retractable landing gear.

Another example of limitations could be where a pilot-owner holds a pre-Part-66 qualification which covered privileges to release work performed on aircraft structures, powerplant, mechanical and electrical systems but limited to their own aircraft and limited to a particular aircraft type (for example, a Cessna 172). This pilot-owner would receive a Part-66 aircraft maintenance licence in the B1.2 or B3 (sub)category with the following limitations (exclusions):

- aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 (this limitation always exists);
- aircraft other than a Cessna 172;
- aircraft not owned by the licence holder.



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One more example would be the case where a person holds a pre-Part-66 qualification that covers privileges to release work on composite and metal sailplanes and powered sailplanes, covering aircraft structures, powerplant, mechanical and electrical systems. This person would be issued a Part-66 aircraft maintenance licence in the L2 subcategory, with the following limitations (exclusions):

- ELA1 aeroplanes;
- wooden-structure aircraft covered with fabric;
- aeroplanes with metal-tubing structure covered with fabric.

And one more example would be the case where a person holds a pre-Part-66 qualification that covers privileges to release work on composite sailplanes up to the annual inspection but not including complex maintenance tasks, repairs and changes. This person would be issued a Part-66 aircraft maintenance licence in the L1C subcategory, with the following limitations:

 complex maintenance tasks described in <u>Appendix VII to Annex I (Part-M)</u>, standard changes described in Part 21 point 21.A.90B, and standard repairs described in Part 21 point 21.A.431B.

The essential aspect is that the limitations are established in order to maintain the privileges of the pre-Part-66 qualification without comparing the previous qualification with the standard of <a href="Part-66">Part-66</a> <a href="Appendix I">Appendix I</a> and II.

For removal of limitations, refer to 66.A.50(c).



#### SECTION B — PROCEDURES FOR COMPETENT AUTHORITIES

#### SUBPART A — GENERAL

### 66.B.1 Scope

Regulation (EU) No 1321/2014

This section establishes the procedures including the administrative requirements to be followed by the competent authorities in charge of the implementation and the enforcement of <u>Section A of this Annex (Part-66)</u>.

### 66.B.10 Competent authority

Regulation (EU) No 1321/2014

#### (a) General

The Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of aircraft maintenance licences.

This competent authority shall establish an adequate organisational structure to ensure compliance with this <u>Annex (Part-66)</u>.

#### (b) Resources

The competent authority shall be appropriately staffed to ensure the implementation of the requirements of this Annex (Part-66).

#### (c) Procedures

The competent authority shall establish documented procedures detailing how compliance with this <u>Annex (Part-66)</u> is accomplished. These procedures shall be reviewed and amended to ensure continued compliance.

# 66.B.20 Record-keeping

Regulation (EU) No 1321/2014

- (a) The competent authority shall establish a system of record-keeping that allows adequate traceability of the process to issue, revalidate, change, suspend or revoke each aircraft maintenance licence.
- (b) These records shall include for each licence:
  - 1. the application for an aircraft maintenance licence or change to that licence, including all supporting documentation;
  - 2. a copy of the aircraft maintenance licence including any changes;
  - 3. copies of all relevant correspondence;
  - 4. details of any exemption and enforcement actions;
  - 5. any report from other competent authorities relating to the aircraft maintenance licence holder;
  - 6. the records of examinations conducted by the competent authority;
  - 7. the applicable conversion report used for conversion;

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- 8. the applicable credit report used for crediting.
- (c) Records referred to in points 1 to 5 of point (b) shall be kept at least 5 years after the end of the licence validity.
- (d) Records referred to in points 6, 7 and 8 of point (b) shall be kept for an unlimited period.

# AMC 66.B.20 Record-keeping

ED Decision 2015/029/R

- 1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organized in a consistent way throughout the competent authority (chronological, alphabetical order, etc.).
- 2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.
- 3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware or software changes take place special care should be taken that all necessary data continues to be accessible at least through the full period specified in 66.B.20.

### 66.B.25 Mutual exchange of information

Regulation (EU) 2019/1383

- (a) The competent authorities shall participate in a mutual exchange of information in accordance with Article 72(1) of Regulation (EU) 2018/1139.
- (b) Without prejudice to the competencies of the Member States, in the case of a potential safety threat involving several Member States, the concerned competent authorities shall assist each other in carrying out the necessary oversight action.

# 66.B.30 Exemptions

Regulation (EU) 2019/1383

All exemptions granted in accordance with Article 71(1) of Regulation (EU) 2018/1139 shall be recorded and retained by the competent authority.



SECTION B — PROCEDURES FOR COMPETENT AUTHORITIES

#### SUBPART B — ISSUE OF AN AIRCRAFT MAINTENANCE LICENCE

Regulation (EU) No 1321/2014

This Subpart provides the procedures to be followed by the competent authority to issue, change or continue an aircraft maintenance licence.

# 66.B.100 Procedure for the issue of an aircraft maintenance licence by the competent authority

Regulation (EU) 2018/1142

- (a) On receipt of <u>EASA Form 19</u> and any supporting documentation, the competent authority shall verify <u>EASA Form 19</u> for completeness and ensure that the experience claimed meets the requirement of this <u>Annex (Part-66)</u>.
- (b) The competent authority shall verify an applicant's examination status and/or confirm the validity of any credits to ensure that all module requirements of <u>Appendix I</u> or <u>Appendix VII</u>, as applicable, have been met as required by this Annex (Part-66).
- (c) When having verified the identity and date of birth of the applicant and being satisfied that the applicant meets the standards of knowledge and experience required by this <a href="Annex (Part-66">Annex (Part-66</a>), the competent authority shall issue the relevant aircraft maintenance licence to the applicant. The same information shall be kept on competent authority records.
- (d) In the case where aircraft types or groups are endorsed at the time of the issuance of the first aircraft maintenance licence, the competent authority shall verify compliance with point 66.B.115.

# AMC 66.B.100 Procedure for the issue of an aircraft maintenance licence by the competent authority

ED Decision 2015/029/R

- 1. Applicants claiming the maximum reduction in <u>66.A.30(a)</u> total experience based upon successful completion of a <u>147.A.200</u> approved basic training course should include the <u>Part-147</u> certificate of recognition for approved basic training.
- 2. Applicants claiming reduction in <u>66.A.30(a)</u> total experience based upon successful completion of training considered relevant by the competent authority as a skilled worker in a technical trade, should include the relevant certificate of successful completion of training.
- 3. Applicants claiming credit against the 66.A.30(a) total experience requirement by virtue of 66.A.30(a) non-civil aircraft maintenance experience may only be granted such credit where the Member State has recognised such non-civil aircraft maintenance experience. The competent authority in recognising non-civil aircraft maintenance experience should have specified who within the non-civil environment may make a statement that the applicant has met relevant maintenance experience. The applicant should include a detailed statement of such maintenance experience signed by the non-civil maintenance authority in accordance with the conditions specified by the competent authority.
- 4. The competent authority should check that the experience record satisfies above paragraphs in terms of content and the countersigning signature.

#### AMC 66.B.100 to 115

ED Decision 2015/029/R

Aircraft type endorsement should use the standard codes contained in Appendix I to the AMCs.

# GM 66.B.100 Procedure for the issue of an aircraft maintenance licence by the competent authority

ED Decision 2019/009/R

At the issue or renewal of a B2L licence:

- one or several system ratings; and
- one or several group/subgroup ratings,

should be endorsed on the licence (EASA Form 26).

A licences should be issued with a subcategory without type ratings.

B1, B2 and C licences may be issued without an aircraft type or group rating.

B2L licences may be issued without an aircraft type or group rating. The B2L licence should always be issued with at least one system rating. This is based on the demonstrated initial experience that at least should be sufficient to endorse one system rating.

B3 licences should be issued with the rating 'piston engine non-pressurised aeroplanes of 2 000 kg MTOM and below' endorsed as the experience requirement for the rating is at least covered by the 1, 2 or 3 years of experience for that category.

L licences should be issued with at least one subcategory and the relevant aircraft rating.

# 66.B.105 Procedure for the issue of an aircraft maintenance licence via a maintenance organisation approved in accordance with Annex II (Part-145)

Regulation (EU) No 1321/2014

- (a) A maintenance organisation approved in accordance with Annex II (Part-145), when authorised to carry out this activity by the competent authority, may (i) prepare the aircraft maintenance licence on behalf of the competent authority or (ii) make recommendations to the competent authority regarding the application from an individual for a aircraft maintenance licence so that the competent authority may prepare and issue such licence.
- (b) Maintenance organisations referred to in point (a) shall ensure compliance with points 66.B.100(a) and (b).
- (c) In all cases, the aircraft maintenance licence can only be issued to the applicant by the competent authority.

# AMC 66.B.105 Procedure for the issue of an aircraft maintenance licence via the Part-145 approved maintenance organisation

D Decision 2015/029/R

1. The maintenance organisation approved under <a href="Part-145">Part-145</a> should include the procedure in the organisation's exposition (Chapter 3.16) and this procedure should be audited by the

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competent authority at least once in each 12-month period. This procedure should include a limitation stating that it is only applicable to the case where the competent authority for the Part-145 approval and for the Part-66 licence is the same.

- 2. The <u>Part-145</u> organisation should check that the experience records have been properly countersigned.
- 3. The maintenance organisation approved under Part-145 may keep the experience record of applicants in a different form from that of application <a href="EASA Form 19">EASA Form 19</a> but such different form or manner should be acceptable to the competent authority.

# 66.B.110 Procedure for the change of an aircraft maintenance licence to include an additional basic category or subcategory

Regulation (EU) 2018/1142

- (a) At the completion of the procedures specified in points <u>66.B.100</u> or <u>66.B.105</u>, the competent authority shall endorse the additional basic category, subcategory or, for category B2L, system rating(s) on the aircraft maintenance licence by stamp and signature or shall reissue the licence.
- (b) The record system of the competent authority shall be changed accordingly.
- (c) Upon request by the applicant, the competent authority shall replace a licence in category B2L with a licence in category B2 endorsed with the same aircraft rating(s) when the holder has demonstrated both of the following:
  - (i) by examination the differences between the basic knowledge corresponding to the B2L licence held and the basic knowledge of the B2 licence, as set out in <u>Appendix I</u>;
  - (ii) the practical experience required in Appendix IV.
- (d) In the case of a holder of an aircraft maintenance licence in subcategory B1.2 endorsed with the Group 3 rating or in category B3 endorsed with the rating 'piston engine non-pressurised aeroplanes of 2 000 kg MTOM and below', the competent authority shall issue, upon application, a fully rated licence in subcategories L1 and L2, with the same limitations as the B1.2/B3 licence held.

# AMC 66.B.110 Procedure for the change of an aircraft maintenance licence to include an additional basic category or subcategory

ED Decision 2019/009/R

In the case of computer-generated licences, the licence should be reissued.

When the conditions set in the rule for extending a B2L licence to include the B2 category are met, the B2L licence should be replaced by a B2 licence.

The B2L licence replaced by a B2 licence should be retained by the competent authority.

# 66.B.115 Procedure for the change of an aircraft maintenance licence to include an aircraft rating or to remove limitations

Regulation (EU) 2018/1142

- (a) On receipt of a satisfactory <u>EASA Form 19</u> and any supporting documentation demonstrating compliance with the requirements of the applicable rating together with the accompanying aircraft maintenance licence, the competent authority shall either:
  - endorse the applicant's aircraft maintenance licence with the applicable aircraft rating;
     or
  - 2. reissue the said licence to include the applicable aircraft rating; or
  - 3. remove the applicable limitations in accordance with point <u>66.A.50</u>.

The competent authority record system shall be changed accordingly.

- (b) In the case where the complete type training is not conducted by maintenance training organisation appropriately approved in accordance with <a href="Annex IV">Annex IV</a> (Part-147), the competent authority shall be satisfied that all type training requirements are complied with before the type rating is issued.
- (c) In the case where the On the Job Training is not required, the aircraft type rating shall be endorsed based on a Certificate of Recognition issued by a maintenance training organisation approved in accordance with Annex IV (part-147).
- (d) In the case where the aircraft type training is not covered by a single course, the competent authority shall be satisfied prior to the type rating endorsement that the content and length of the courses fully satisfy the scope of the licence category and that the interface areas have been appropriately addressed.
- (e) In the case of differences training, the competent authority shall be satisfied that (i) the applicant's previous qualification, supplemented by (ii) either a course approved in accordance with <a href="Annex IV">Annex IV</a> (Part-147) or a course directly approved by the competent authority, are acceptable for type rating endorsement.
- (f) The competent authority shall ensure that compliance with the practical elements of the type training is demonstrated by one of the following:
  - (i) by the provision of detailed practical training records or a logbook provided by the organisation which delivered the course directly approved by the competent authority in accordance with point 66.B.130;
  - (ii) where available, by a training certificate, covering the practical training element, issued by a maintenance training organisation appropriately approved in accordance with <u>Annex IV (Part-147)</u>.
- (g) Aircraft type endorsement shall use the aircraft type ratings specified by the Agency.



# AMC 66.B.115 Procedure for the change of an aircraft maintenance licence to include an aircraft rating or to remove limitations

ED Decision 2020/002/R

- (a) Where the type training has not been conducted by a <u>Part-147</u> organisation, there should be supporting documents confirming to the competent authority that:
  - The type training has been approved by the competent authority in accordance with 66.B.130,
  - the applicant has completed the elements of the approved type training; and
  - the trainee has been successfully examined/assessed.
- (b) Aircraft type training may be subdivided in airframe and/or powerplant and/or avionics/electrical systems type training courses.
  - 1. Airframe type training course means a type training course including all relevant aircraft structure and electrical and mechanical systems excluding the powerplant.
  - 2. Powerplant type training course means a type training course on the bare engine, including the build-up to a quick engine change unit.
  - 3. The interface of the engine/airframe systems should be addressed by either airframe or powerplant type training course. In some cases, such as for general aviation, it may be more appropriate to cover the interface during the airframe course due to the large variety of aircraft that can have the same engine type installed.
  - 4. Avionics/electrical systems type training course means type training on avionics and electrical systems covered by but not necessarily limited to ATA Chapters 22, 23, 24, 25, 27, 31, 33, 34, 42, 44, 45, 46, 73 and 77 or equivalent.
- (c) For the acceptance of the OJT programme described in <u>Section 6 of Appendix III to Part-66</u>, the licensing competent authority should develop adequate procedures which may be similar to the procedure described in <u>AMC 66.B.130</u> for the 'direct approval of aircraft type training'.
  - In the case where the licensing competent authority is different from the competent authority of the maintenance organisation which provides the OJT, the licensing authority may take into consideration the fact that the maintenance organisation may already have the OJT programme accepted by their own competent authority (directly approved or through chapter 3.15 of the MOE, as described in AMC 145.A.70(a)).

# 66.B.120 Procedure for the renewal of an aircraft maintenance licence validity

- (a) The competent authority shall compare the holder's aircraft maintenance licence with the competent authority records and verify any pending revocation, suspension or change action pursuant to point <u>66.B.500</u>. If the documents are identical and no action is pending pursuant to point <u>66.B.500</u>, the holder's copy shall be renewed for 5 years and the file endorsed accordingly.
- (b) If the competent authority records are different from the aircraft maintenance licence held by the licence holder:
  - 1. the competent authority shall investigate the reasons for such differences and may choose not to renew the aircraft maintenance licence.

- 2. the competent authority shall inform the licence holder and any known maintenance organisation approved in accordance with Annex I (Part-M) Subpart F, Annex II (Part-145) or Annex Vd (Part-CAO) that may be directly affected by such fact.
- 3. the competent authority shall, if necessary, take action in accordance with point 66.B.500 to revoke, suspend or change the licence in question.

# AMC 66.B.120 Procedure for the renewal of an aircraft maintenance licence validity

ED Decision 2020/002/R

The competent authority should not carry out any investigation to ensure that the licence holder is in current maintenance practice as this is not a condition for the renewal of a licence. Ensuring the continued validity of the certification privileges is a matter for the approved <a href="Part-145">Part-145</a> / M.A. Subpart F / Part-CAO maintenance organisation or the certifying staff in accordance with <a href="M.A.801(b)1">M.A.801(b)1</a>.

For the purpose of ensuring the continued validity of the certification privileges, the competent authority may, when periodically reviewing the organisations in accordance with 145.B.30, M.B.604 or CAO.B.055, or during on-the-spot checks, request the licence holder to provide documentary evidence of compliance with 66.A.20(b) when exercising certification privileges.

# 66.B.125 Procedure for the conversion of licences including group ratings

- (a) Individual aircraft type ratings already endorsed on the aircraft maintenance licence referred to in point 4 of <u>Article 5</u> shall remain on the licence and shall not be converted to new ratings unless the licence holder fully meets the requirements for endorsement defined in point <u>66.A.45</u> of this <u>Annex (Part-66)</u> for the corresponding group/sub-group ratings.
- (b) The conversion shall be performed in accordance with the following conversion table:
  - 1. for category B1 or C:
    - helicopter piston engine, full group: converted to 'full subgroup 2c' plus the aircraft type ratings for those single piston engine helicopters which are in Group 1;
    - helicopter piston engine, manufacturer group: converted to the corresponding 'manufacturer subgroup 2c' plus the aircraft type ratings for those single piston engine helicopters of that manufacturer which are in Group 1;
    - helicopter turbine engine, full group: converted to 'full subgroup 2b' plus the aircraft type ratings for those single turbine engine helicopters which are in Group 1;
    - helicopter turbine engine, manufacturer group: converted to the corresponding 'manufacturer subgroup 2b' plus the aircraft type ratings for those single turbine engine helicopters of that manufacturer which are in Group 1;
    - aeroplane single piston engine metal structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence, the following limitations shall be included: composite-structure aeroplanes, wooden-structure aeroplanes, and metal-tubing and fabric aeroplanes;

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- aeroplane multiple piston engines metal structure, either full group or manufacturer group: converted to 'full group 3' plus the aircraft type ratings for those aeroplanes with multiple piston engines of the corresponding full/manufacturer group which are in Group 1. For the B1 licence, the following limitations shall be included: composite-structure aeroplanes, wooden-structure aeroplanes and metal-tubing and fabric aeroplanes;
- aeroplane single piston engine wooden structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence, the following limitations shall be included: pressurised aeroplanes, metal-structure aeroplanes, composite-structure aeroplanes and metal-tubing and fabric aeroplanes;
- aeroplane multiple piston engines wooden structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence, the following limitations shall be included: pressurised aeroplanes, metal-structure aeroplanes, composite-structure aeroplanes and metal-tubing and fabric aeroplanes;
- aeroplane single piston engine composite structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence, the following limitations shall be included: pressurised aeroplanes, metal-structure aeroplanes, wooden-structure aeroplanes and metal-tubing and fabric aeroplanes;
- aeroplane multiple piston engines composite structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence, the following limitations shall be included: pressurised aeroplanes, metal-structure aeroplanes, wooden-structure aeroplanes and metal-tubing and fabric aeroplanes;
- aeroplane turbine single engine, full group: converted to 'full sub-group 2a' plus
  the aircraft type ratings for those single turboprop aeroplanes which did not
  require an aircraft type rating in the previous system and are in Group 1;
- aeroplane turbine single engine, manufacturer group: converted to the corresponding 'manufacturer subgroup 2a' plus the aircraft type ratings for those single turboprop aeroplanes of that manufacturer which did not require an aircraft type rating in the previous system and are in Group 1;
- aeroplane turbine multiple engines, full group: converted to the aircraft type ratings for those aeroplanes with multiple turboprop engines which did not require an aircraft type rating in the previous system.

#### 2. for category B2:

- aeroplane: converted to 'full sub-group 2a' and 'full group 3', plus the aircraft type ratings for those aeroplanes which did not require an aircraft type rating in the previous system and are in group 1,
- helicopter: converted to 'full sub-groups 2b and 2c', plus the aircraft type ratings for those helicopters which did not require an aircraft type rating in the previous system and are in group 1;

#### 3. for category C:

 aeroplane: converted to 'full sub-group 2a' and 'full group 3', plus the aircraft type ratings for those aeroplanes which did not require an aircraft type rating in the previous system and are in group 1,

- helicopter: converted to 'full sub-groups 2b and 2c', plus the aircraft type ratings for those helicopters which did not require an aircraft type rating in the previous system and are in group 1.
- (c) If the licence was subject to limitations following the conversion process referred to in point 66.A.70, these limitations shall remain on the licence, unless they are removed under the conditions defined in the relevant conversion report referred to in point 66.B.300.

# 66.B.130 Procedure for the direct approval of aircraft type training

Regulation (EU) 2018/1142

- (a) In the case of type training for aircraft other than airships, the competent authority may approve aircraft type training not conducted by a maintenance training organisation approved in accordance with <a href="Annex IV (Part-147">Annex IV (Part-147)</a>, pursuant to <a href="point 1">point 1</a> of <a href="Appendix III to this Annex (part-66">66</a>). In such case, the competent authority shall have a procedure to ensure that the aircraft type training complies with <a href="Appendix III to this Annex (Part-66">Annex (Part-66</a>).
- (b) In the case of type training for airships in Group 1, the courses shall be directly approved by the competent authority in all cases. The competent authority shall have a procedure to ensure that the syllabus of the airship-type training covers all the elements contained in the maintenance data from the Design Approval Holder (DAH).

# AMC 66.B.130 Procedure for the direct approval of aircraft type training

ED Decision 2019/009/R

In the case of type training for aircraft other than airships:

- 1. The procedure for the direct approval of type training courses by the competent authority should require that the following aspects are described by the organisation providing the training:
  - The content and the duration of the theoretical and/or practical elements, as applicable, in accordance with <u>Appendix III to Part-66</u>, including the Training Need Analysis (TNA);
  - The teaching methods and instructional equipment;
  - The material and documentation provided to the student;
  - The qualification of instructors, examiners and/or assessors, as applicable;
  - The examination and/or assessment procedure, as applicable. Further guidance about the assessment and the designated assessors is given in <u>Appendix III to AMC to Part-66</u>.
  - The documentation and records to be provided to the student to justify the satisfactory completion of the training course and related examination/assessment. This should include not only a certificate of completion but enough documentation and records to justify that the content and duration approved has been met and that the examination/assessment has been successfully passed.
- 2. The above criteria apply to a full course as well as to a partial course such as the practical element of a type training course and its assessment.
- 3. The procedure should also indicate how the competent authority is going to audit the proper performance of the approved course.



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4. The direct approval of aircraft type training should be done on a case by case basis and should not be granted for long term periods, since it is not a privilege of the organisation providing the training.



#### **SUBPART C — EXAMINATIONS**

Regulation (EU) No 1321/2014;

This Subpart provides the procedures to be followed for the examinations conducted by the competent authority.

### 66.B.200 Examination by the competent authority

Regulation (EU) 2018/1142

- (a) All examination questions shall be kept in a secure manner prior to an examination, to ensure that candidates will not know which particular questions will form the basis of the examination.
- (b) The competent authority shall nominate:
  - 1. persons who control the questions to be used for each examination;
  - 2. examiners who shall be present during all examinations to ensure the integrity of the examination.
- (c) Basic examinations shall follow the standard specified in <u>Appendices I</u> and <u>II</u> or in <u>Appendices VII</u> and <u>VIII</u> to this Annex (Part-66), as applicable.
- (d) Type training examinations and type examinations shall follow the standard specified in Appendix III to this Annex (Part-66).
- (e) New essay questions shall be raised at least every 6 months and questions already used withdrawn or rested from use. A record of the questions used shall be retained in the records for reference.
- (f) All examination papers shall be handed out at the start of the examination to the candidate and handed back to the examiner at the end of the allotted examination time period. No examination paper may be removed from the examination room during the allotted examination time period.
- (g) Apart from specific documentation needed for type examinations, only the examination paper may be available to the candidate during the examination.
- (h) Examination candidates shall be separated from each other so that they cannot read each other's examination papers. They may not speak to any person other than the examiner.
- (i) Candidates who are proven to be cheating shall be banned from taking any further examination within 12 months of the date of the examination in which they were found cheating.

# GM 66.B.200 Examination by the competent authority

ED Decision 2020/002/F

- 1. Questions may be prepared in the national language but the use of aviation English is recommended wherever possible.
- 2. The primary purpose of essay questions is to determine that the candidate can express themselves in a clear and concise manner and can prepare a concise technical report for the maintenance record, which is why only a few essay questions are required.
- 3. Oral type questions may not be used as the primary means of examination because of the difficulty in establishing consistency of standards between examiners or day-to-day.

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However, nothing prevents the competent authority from meeting potential certifying staff for the purpose of ensuring they understand their obligations and responsibilities in the application of maintenance Parts.

- 4. For pass mark purposes, the essay questions should be considered as separate from the multiple choice questions.
- 5. Multiple choice question (MCQ) generation.

The following principles should be observed when developing multiple choice question:

- (a) The examination should measure clearly formulated goals. Therefore the field and depth of knowledge to be measured by each question should be fully identified.
- (b) All the questions should be of the multiple choice type with three alternative answers.
- (c) Questions that require specialised knowledge of specific aircraft types should not be asked in a basic licence examination.
- (d) The use of abbreviations and acronyms should generally be avoided. However where needed, only internationally recognised abbreviations and acronyms should be used. In case of doubt use the full form, e.g. angle of attack = 12 degrees instead of a= 12°.
- (e) Questions and answers should be formulated as simply as possible: the examination is not a test of language. Complex sentences, unusual grammar and double negatives should be avoided.
- (f) A question should comprise one complete positive proposition. No more than 3 different statements should appear among the suggested responses otherwise the candidate may be able to deduce the correct answer by eliminating the unlikely combinations of statements.
- (g) Questions should have only one true answer.
- (h) The correct answer should be absolutely correct and complete or, without doubt, the most preferable. Responses that are so essentially similar that the choice is a matter of opinion rather than a matter of fact should be avoided. The main interest in MCQs is that they can be quickly performed: this is not achieved if doubt exists about the correct answer.
- (i) The incorrect alternatives should seem equally plausible to anyone ignorant of the subject. All alternatives should be clearly related to the question and of similar vocabulary, grammatical structure and length. In numerical questions, the incorrect answers should correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they should not be mere random numbers.
- (j) Calculators are not allowed during examination. Therefore all calculations should be feasible without a calculator. Where a question involves calculations not feasible without a calculator, such as  $\sqrt{10}$ , then the question should specify the approximate value of  $\sqrt{10}$ .
- (k) Questions should be in accordance with Part-66 examination syllabus (Appendix I and Appendix VII).
- 6. Essay question generation
  - (a) The purpose of the essay is to allow the competent authority to determine if candidates can express themselves in a clear and concise manner in the form of a written response,

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in a technical report format using the technical language of the aviation industry. The essay examination also allows to assess, in part, the technical knowledge retained by the individual and with a practical application relevant to a maintenance scenario.

- (b) Questions should be written so as to be broad enough to be answered by candidates for any A or B licence category or subcategories and comply with the following general guidelines:
  - the question topic selected should be generic, applicable to mechanical as well as avionic licence categories and have a common technical difficulty level as indicated in Part-66 <u>Appendix I</u> or <u>Appendix VII</u>;
  - cover technology applicable to most areas of aircraft maintenance;
  - reflects common working practices;
  - it is not type- or manufacturer-specific and avoids subjects which are rarely found in practice;
  - when drafting a question, there is need to ensure consideration is given to the limited practical experience that most candidates will have.
- (c) To make the questions and the marking procedures are as consistent as possible, each question and model answer, with the required key areas required (see below), should be reviewed independently by at least 2 technical staff members.
- (d) When raising questions the following should be considered:
  - Each essay question will have a time allowance of 20 minutes.
  - A complete A4 side is provided for each question and answer, if required the answer can be extended onto the reverse side of the page.
  - The question should be such that the answer expected will be at the level shown for that subject in the module syllabus.
  - The question should not be ambiguous but should seek a broad reply rather than be limited in scope for answer.
  - The question should lend itself to be written in a technical report style, in a logical sequence (beginning, middle and end), containing the applicable and relevant technical words needed in the answer.
  - Do not ask for drawings/sketches to support the essay.
  - The question should be relevant to the category and level of difficulty listed in the syllabus, e.g. a description of a typical general aviation system may not be acceptable for a typical commercial aeroplane.
  - Subject to obvious constraints in relation to the topic being addressed the question should have a strong bias towards the practical maintenance of a system/component and the answer should show an understanding of normal and deteriorated conditions of an aircraft and its systems.
    - Variations on alternative possible answers which have not been thought of, may have to be taken into account to aid the examiner when marking. If considered relevant, the model answer should be amended to include these new points.

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- (e) Because of the difficulty in marking an essay answer using key points only, there is a need for the way in which the report was written to be assessed and taken into consideration.
- (f) The total points for each question will add up to 100 and will need to reflect both the combination of the technical (key point) element and the report style element.
- (g) Each key point will be graded upon its importance and have point weighting allocated to it. The total weight will represent 60% of the mark.
- (h) Key points are the 'important elements' that may be knowledge or experience-based and will include other maintenance orientated factors such as relevant safety precautions or legislative practices if applicable. Excessive reference to the need for MM referral or safety checks may be considered wasteful.
- (i) The question answer will be analysed for the clarity and manner in which the essay report is presented and have a weighting allocated to it which will represent 40% of the mark.
- (j) The answer should show the candidate's ability to express himself in technical language. This includes readability of the language, basic grammar and use of terminology.
- (k) The report starts in the beginning and has logical process to reach a conclusion.
- (I) Supporting diagrams should not be encouraged but if used should supplement the answer and not replace the need for a broad text answer.
- (m) The report should not be indexed, itemised or listed.
- (n) Within reason the candidate should not be penalised for incorrect spelling.
- (o) A zero mark should only be given in exceptional circumstances. Even if the student misunderstands the question and gives an answer to a different question, a sympathetic mark even if only for the report style should be given, this could up to the maximum percentage allowed.
- (p) The two allocated marks should be added together and written into the answer paper.
- (q) If a question answer resulting in a borderline failure is principally due to 'written report errors,' the paper should be discussed and the mark agreed if possible with another examiner.

### SUBPART D — CONVERSION OF CERTIFYING STAFF QUALIFICATIONS

Regulation (EU) No 1321/2014

This Subpart provides the procedures for the conversion of certifying staff qualifications referred to in point 66.A.70 to aircraft maintenance licences.

#### 66.B.300 General

Regulation (EU) No 1321/2014

- (a) The competent authority may only convert qualifications
  - (i) obtained in the Member State for which it is competent, without prejudice to bilateral agreements and
  - (ii) valid prior to the entry into force of the applicable requirements of this Annex (Part-66).
- (b) The competent authority may only perform the conversion in accordance with a conversion report established pursuant to points <u>66.B.305</u> or <u>66.B.310</u>, as applicable.

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- (c) Conversion reports shall be either
  - (i) developed by the competent authority or
  - (ii) approved by the competent authority to ensure compliance with this Annex (Part-66).
- (d) Conversion reports together with any change of these shall be kept on record by the competent authority in accordance with point 66.B.20.

#### GM 66.B.300 General

ED Decision 2015/029/R

As described in point <u>66.B.300</u>, certifying staff qualifications eligible for conversion are those valid 'prior to the entry into force of the applicable requirements of this <u>Annex (Part-66)</u>', which means those qualifications valid before the following dates:

- 28 September 2005 for aircraft above 5 700 kg MTOM (ref. (EC) No 2042/2003, Article 7, point 3(e));
- 28 September 2006 for aircraft of 5 700 kg MTOM and below (ref. (EC) No 2042/2003, Article 7, point 3(f)).

Nevertheless, since the B3 licence did not exist at those dates, certifying staff qualifications eligible for conversion to a B3 licence are those valid before 28 September 2012, which is the date where the authority has been obliged to start issuing such licences in accordance with (EC) No 2042/2003, Article 7, point 3(h), item (i).

# 66.B.305 Conversion report for national qualifications

Regulation (EU) 2018/1142

- (a) The conversion report for national certifying staff qualifications shall describe the scope of each type of qualification, including the associated national licence, if any, the associated privileges and include a copy of the relevant national regulations defining these.
- (b) The conversion report shall show for each type of qualification referred to in point (a):
  - 1. to which aircraft maintenance licence it will be converted; and
  - 2. which limitations shall be added in accordance with points 66.A.70(c) or (d), as applicable;
  - 3. the conditions to remove the limitations, specifying the module/subjects on which examination is needed to remove the limitations and obtain a full aircraft maintenance licence, or to include an additional (sub-) category. This shall include the modules defined in Appendix I to this Annex (Part-66) not covered by the national qualification.

# AMC 66.B.305(a) Conversion report for national qualifications

ED Decision 2016/011/R

1. Conversion reports prepared on the basis of point 66.A.70(c) should include a comparison between the scope of the national qualification (i.e., the national qualification requirements) and the scope of the Part-66 licence qualification (i.e., the Part-66 qualification requirements), which should be performed on the basis of a detailed analysis of the national and Part-66 basic qualification standards. The report should identify where a difference between the two standards exists and where such a difference would lead to a limitation on the Part-66 licence.

Conversion reports prepared on the basis of point 66.A.70(d), which are limited to other-than-complex motor-powered aircraft not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 should include the privileges associated to the national qualification. The reports should identify which limitations are needed to the Part-66 licence in order to maintain these privileges.

# GM 66.B.305(b)3 Conversion report for national qualifications

ED Decision 2015/029/R

As conversions performed on the basis of  $\underline{66.A.70(d)}$  are aimed to maintain the privileges of the preexisting national qualification, the limitations introduced on the  $\underline{Part-66}$  licence are not linked to possible differences between the scope of the national qualification and the scope of the  $\underline{Part-66}$ licence qualification. This conversion does not include such comparison.

This means that, in order to remove such limitations, full compliance with the conditions of Part-66 needs to be demonstrated.

# 66.B.310 Conversion report for approved maintenance organisations authorisations

Regulation (EU) No 1321/2014

- (a) For each approved maintenance organisation concerned, the conversion report shall describe the scope of each type of authorisation issued by the maintenance organisation and include a copy of the relevant approved maintenance organisation's procedures for the qualification and the authorisation of certifying staff on which the conversion process is based.
- (b) The conversion report shall show for each type of authorisation referred to in point (a):
  - 1. to which aircraft maintenance licence it will be converted, and
  - 2. which limitations shall be added in accordance with points 66.A.70(c) or (d), as applicable, and
  - 3. the conditions to remove the limitations, specifying the module/subjects on which examination is needed to remove the limitations and obtain a full aircraft maintenance licence, or to include an additional (sub-) category. This shall include the modules defined in <a href="Appendix III to this Annex (Part-66)">Appendix III to this Annex (Part-66)</a> not covered by the national qualification.

# AMC 66.B.310(a) Conversion report for approved maintenance organisations' authorisations

ED Decision 2020/002/R

- 1. Conversion reports prepared on the basis of point 66.A.70(c) should include a comparison between the qualification required for each type of organisation authorisation and the scope of the Part-66 licence qualification, which should be performed on the basis of a detailed analysis of the organisation and Part-66 basic qualification standards. The report should identify where a difference between the two standards exists and where such a difference would lead to a limitation on the Part-66 licence.
- 2. Conversion reports prepared on the basis of point <u>66.A.70(d)</u>, which are limited to other-than-complex motor-powered aircraft that are not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008 should include the privileges associated to the organisation

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authorisation. The reports should identify which limitations are needed to the Part-66 licence in order to maintain these privileges.

# GM 66.B.310(b)3 Conversion report for approved maintenance organisations authorisations

ED Decision 2015/029/R

As conversions performed on the basis of <u>66.A.70(d)</u> are aimed to maintain the privileges of the preexisting organisation authorisations, the limitations introduced on the <u>Part-66</u> licence are not linked to possible differences between the qualification required for the organisation authorisation and the <u>Part-66</u> licence qualification. This conversion does not include such comparison.

This means that, in order to remove such limitations, full compliance with the conditions of Part-66 needs to be demonstrated.

#### SUBPART E — EXAMINATION CREDITS

Regulation (EU) 2021/700

This Subpart provides the procedures for granting examination credits referred to in point 66.A.25(e).

### 66.B.400 General

Regulation (EU) No 1321/2014

- (a) The competent authority may only grant credit on the basis of a credit report prepared in accordance with point 66.B.405.
- (b) The credit report shall be either
  - (i) developed by the competent authority or
  - (ii) approved by the competent authority to ensure compliance with this Annex (Part-66).
- (c) Credit reports together with any change of these shall be dated and kept on record by the competent authority in accordance with point <u>66.B.20</u>.

# 66.B.405 Examination credit report

Regulation (EU) 2018/1142

- (a) The credit report shall include a comparison between the following:
  - (i) the modules, submodules, subjects and knowledge levels contained in <u>Appendices I</u> or <u>VII</u> to this Annex (Part-66), as applicable;
  - (ii) the syllabus of the technical qualification concerned, relevant to the particular category being sought.

This comparison shall state whether compliance has been demonstrated and contain the justifications for each statement.

- (b) Credits for examinations, other than basic knowledge examinations carried out in maintenance training organisations approved in accordance with Annex IV (Part-147), can only be granted by the competent authority of the Member State in which the qualification has been obtained, unless a formal agreement exists with such competent authority advising otherwise.
- (c) No credit can be granted unless there is a statement of compliance for each module and submodule, indicating where the equivalent standard can be found in the technical qualification.
- (d) The competent authority shall check on a regular basis whether the following have changed:
  - (i) the national qualification standard;
  - (ii) Appendices I or VII to this Annex (Part-66), as applicable.

The competent authority shall also assess if changes to the credit report are consequently required. Such changes shall be documented, dated and recorded.

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### 66.B.410 Examination credit validity

Regulation (EU) 2018/1142

- (a) The competent authority shall notify to the applicant in writing any credits granted together with the reference to the credit report used.
- (b) Credits shall expire 10 years after they are granted.
- (c) Upon expiration of the credits, the applicant may apply for new credits. The competent authority shall extend the validity of the credits for an additional period of 10 years without further consideration if the basic knowledge requirements defined in <a href="Appendices I">Appendices I</a> or <a href="YII">VII</a> to this Annex (Part-66), as applicable, have not been changed.

### GM 66.B.410 Examination credit validity

ED Decision 2015/029/R

In the case of credits expired in accordance with  $\underline{66.A.25(d)}$  and  $\underline{66.B.410(b)}$ , the new application for credits will lead to a reassessment in accordance with  $\underline{66.B.405}$  and  $\underline{66.B.410}$  only in those cases where the requirements contained in  $\underline{\text{Appendix I to Part-66}}$  have changed. This may lead to a requirement for further examinations on particular modules/sub-modules/subjects.

#### SUBPART F — CONTINUING OVERSIGHT

Regulation (EU) No 1321/2014

This Subpart describes the procedures for the continuing oversight of the aircraft maintenance licence and in particular for the revocation, suspension or limitation of the aircraft maintenance licence.

# 66.B.500 Revocation, suspension or limitation of the aircraft maintenance licence

Regulation (EU) 2021/700

The competent authority shall suspend, limit or revoke the aircraft maintenance licence where it has identified a safety issue or if it has clear evidence that the person has carried out or been involved in one or more of the following activities:

- 1. obtaining the aircraft maintenance licence and/or the certification privileges by falsification of documentary evidence;
- 2. failing to carry out requested maintenance combined with failure to report such fact to the organisation or person who requested the maintenance;
- failing to carry out required maintenance resulting from own inspection combined with failure to report such fact to the organisation or person for whom the maintenance was intended to be carried out;
- 4. negligent maintenance;
- 5. falsification of the maintenance record;
- 6. issuing a certificate of release to service knowing that the maintenance specified on the certificate of release to service has not been carried out or without verifying that such maintenance has been carried out;
- 7. carrying out maintenance or issuing a certificate of release to service when adversely affected by alcohol or drugs;
- 8. issuing certificate of release to service while not in compliance with this Regulation.



# **APPENDICES TO ANNEX III (PART-66)**

# Appendix I — Basic Knowledge Requirements (except for category L licence)

#### 1. Knowledge levels for Category A, B1, B2, B2L, B3 and C aircraft maintenance licences

Regulation (EU) 2018/1142

Basic knowledge for categories A, B1, B2, B2L and B3 is indicated by knowledge levels (1, 2 or 3) of each applicable subject. Category C applicants shall meet either the category B1 or the category B2 basic knowledge levels.

The knowledge level indicators are defined on 3 levels as follows:

LEVEL 1: A familiarisation with the principal elements of the subject.

#### Objectives:

- (a) The applicant should be familiar with the basic elements of the subject.
- (b) The applicant should be able to give a simple description of the whole subject, using common words and examples.
- (c) The applicant should be able to use typical terms.
- LEVEL 2: A general knowledge of the theoretical and practical aspects of the subject and an ability to apply that knowledge.

#### Objectives:

- (a) The applicant should be able to understand the theoretical fundamentals of the subject.
- (b) The applicant should be able to give a general description of the subject using, as appropriate, typical examples.
- (c) The applicant should be able to use mathematical formulae in conjunction with physical laws describing the subject.
- (d) The applicant should be able to read and understand sketches, drawings and schematics describing the subject.
- (e) The applicant should be able to apply his knowledge in a practical manner using detailed procedures.
- LEVEL 3: A detailed knowledge of the theoretical and practical aspects of the subject and a capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner.

#### Objectives:

- (a) The applicant should know the theory of the subject and interrelationships with other subjects.
- (b) The applicant should be able to give a detailed description of the subject using theoretical fundamentals and specific examples.
- (c) The applicant should understand and be able to use mathematical formulae related to the subject.



- (d) The applicant should be able to read, understand and prepare sketches, simple drawings and schematics describing the subject.
- (e) The applicant should be able to apply his knowledge in a practical manner using manufacturer's instructions.
- (f) The applicant should be able to interpret results from various sources and measurements and apply corrective action where appropriate.

#### 2. Modularisation

Regulation (EU) 2018/1142

Qualification on basic subjects for each aircraft maintenance licence category or subcategory shall be in accordance with the following matrix, where applicable subjects are indicated by an 'X':

For categories A, B1 and B3:

	A or B1 aero	oplane with:	A or B1 helio	В3	
Subject module	Turbine engine(s)	Piston engine(s)	Turbine engine(s)	Piston engine(s)	Piston engine non-pressurised aeroplanes 2 000 kg MTOM and below
1	X	X	X	X	X
2	X	X	X	X	X
3	X	X	X	X	X
4	X	X	X	X	X
5	X	X	X	X	X
6	X	X	X	X	X
7A	X	X	X	X	
7B					X
8	X	X	X	X	X
9A	X	X	X	X	
9B					X
10	X	X	X	X	X
11A	X				
11B		X			
11C					X
12			X	X	
13					
14					
15	X		X		
16		X		X	X
17A	X	X			
17B					X

#### For categories B2 and B2L:

Subject module/submodules	B2	B2L
1	X	X
2	Х	X



Subject module/submodules	В2	B2L
3	X	Х
4	X	X
5	Х	X
6	X	X
7A	X	X
7B		
8	X	X
9A	X	X
9B		
10	X	X
11A		
11B		
11C		
12		
13.1 and 13.2	X	X
13.3(a)	X	X (for system rating 'Autoflight')
13.3(b)	X	
13.4(a)	X	X (for system rating 'Com/Nav')
13.4(b)	X	X (for system rating 'Surveillance')
13.4(c)	X	
13.5	X	X
13.6	X	
13.7	X	X (for system rating 'Autoflight')
13.8	X	X (for system rating 'Instruments')
13.9	X	X
13.10	X	
13.11 to 13.18	X	X (for system rating 'Airframe systems')
13.19 to 13.22	X	
14	X	X (for system rating 'instruments' and 'Airframe systems')
15		
16		
17A		
17B		

#### **MODULE 1. MATHEMATICS**

	LEVEL			
MODULE 1. MATHEMATICS	Α	B1	B2 B2L	В3
1.1 Arithmetic	1	2	2	2
Arithmetical terms and signs, methods of multiplication and division, fractions and decimals, factors and multiples, weights, measures and conversion factors, ratio and proportion, averages and percentages, areas and volumes, squares, cubes, square and cube roots.				
1.2 Algebra				
<ul> <li>(a) Evaluating simple algebraic expressions, addition, subtraction, multiplication and division, use of brackets, simple algebraic fractions;</li> </ul>	1	2	2	2
(b) Linear equations and their solutions; Indices and powers, negative and fractional indices; Binary and other applicable numbering systems; Simultaneous equations and second degree equations with one unknown; Logarithms.	_	1	1	1
1.3 Geometry				
(a) Simple geometrical constructions;	_	1	1	1
(b) Graphical representation; nature and uses of graphs, graphs of equations/functions;	2	2	2	2
(c) Simple trigonometry; trigonometrical relationships, use of tables and rectangular and polar coordinates.	_	2	2	2



#### **MODULE 2. PHYSICS**

		LE\	/EL	
MODULE 2. PHYSICS	Α	B1	B2 B2L	В3
2.1 Matter  Nature of matter: the chemical elements, structure of atoms, molecules; Chemical compounds; States: solid, liquid and gaseous; Changes between states.	1	1	1	1
2.2 Mechanics 2.2.1 Statics  Forces, moments and couples, representation as vectors; Centre of gravity; Elements of theory of stress, strain and elasticity: tension, compression, shear and torsion; Nature and properties of solid, fluid and gas; Pressure and buoyancy in liquids (barometers).	1	2	1	1
2.2.2 Kinetics  Linear movement: uniform motion in a straight line, motion under constant acceleration (motion under gravity);  Rotational movement: uniform circular motion (centrifugal/centripetal forces);  Periodic motion: pendular movement;  Simple theory of vibration, harmonics and resonance;  Velocity ratio, mechanical advantage and efficiency.	1	2	1	1
<ul> <li>2.2.3 Dynamics         <ul> <li>(a) Mass;</li> <li>Force, inertia, work, power, energy (potential, kinetic and total energy), heat, efficiency;</li> </ul> </li> </ul>	1	2	1	1
(b) Momentum, conservation of momentum; Impulse; Gyroscopic principles; Friction: nature and effects, coefficient of friction (rolling resistance).	1	2	2	1
2.2.4 Fluid dynamics (a) Specific gravity and density;	2	2	2	2
(b) Viscosity, fluid resistance, effects of streamlining; Effects of compressibility on fluids; Static, dynamic and total pressure: Bernoulli's Theorem, venturi.	1	2	1	1
2.3 Thermodynamics				
(a) Temperature: thermometers and temperature scales: Celsius, Fahrenheit and Kelvin; Heat definition;	2	2	2	2
(b) Heat capacity, specific heat; Heat transfer: convection, radiation and conduction; Volumetric expansion; First and second law of thermodynamics; Gases: ideal gases laws; specific heat at constant volume and constant pressure, work done by expanding gas;	_	2	2	1

		LEVEL				
MODULE 2. PHYSICS	Α	B1	B2 B2L	В3		
Isothermal, adiabatic expansion and compression, engine cycles, constant volume and constant pressure, refrigerators and heat pumps;  Latent heats of fusion and evaporation, thermal energy, heat of combustion.						
2.4 Optics (Light)  Nature of light; speed of light; Laws of reflection and refraction: reflection at plane surfaces, reflection by spherical mirrors, refraction, lenses; Fibre optics.	_	2	2	_		
2.5 Wave Motion and Sound  Wave motion: mechanical waves, sinusoidal wave motion, interference phenomena, standing waves; Sound: speed of sound, production of sound, intensity, pitch and quality, Doppler effect.	_	2	2	_		

#### **MODULE 3. ELECTRICAL FUNDAMENTALS**

		LE\	/EL	
MODULE 3. ELECTRICAL FUNDAMENTALS	А	B1	B2 B2L	В3
3.1 Electron Theory  Structure and distribution of electrical charges within: atoms, molecules, ions, compounds;  Molecular structure of conductors, semiconductors and insulators.	1	1	1	1
3.2 Static Electricity and Conduction Static electricity and distribution of electrostatic charges; Electrostatic laws of attraction and repulsion; Units of charge, Coulomb's Law; Conduction of electricity in solids, liquids, gases and a vacuum.	1	2	2	1
3.3 Electrical Terminology  The following terms, their units and factors affecting them: potential difference, electromotive force, voltage, current, resistance, conductance, charge, conventional current flow, electron flow.	1	2	2	1
3.4 Generation of Electricity  Production of electricity by the following methods: light, heat, friction, pressure, chemical action, magnetism and motion.	1	1	1	1
3.5 DC Sources of Electricity  Construction and basic chemical action of: primary cells, secondary cells, lead acid cells, nickel cadmium cells, other alkaline cells; Cells connected in series and parallel; Internal resistance and its effect on a battery; Construction, materials and operation of thermocouples; Operation of photo-cells.	1	2	2	2
3.6 DC Circuits  Ohms Law, Kirchoff's Voltage and Current Laws; Calculations using the above laws to find resistance, voltage and current; Significance of the internal resistance of a supply.	_	2	2	1
3.7 Resistance/Resistor  (a) Resistance and affecting factors; Specific resistance; Resistor colour code, values and tolerances, preferred values, wattage ratings; Resistors in series and parallel; Calculation of total resistance using series, parallel and series parallel combinations; Operation and use of potentiometers and rheostats; Operation of Wheatstone Bridge;	-	2	2	1
(b) Positive and negative temperature coefficient conductance; Fixed resistors, stability, tolerance and limitations, methods of construction; Variable resistors, thermistors, voltage dependent resistors; Construction of potentiometers and rheostats; Construction of Wheatstone Bridge.	_	1	1	_
3.8 Power	_	2	2	1



		LE\	/EL	
MODULE 3. ELECTRICAL FUNDAMENTALS	А	B1	B2 B2L	В3
Power, work and energy (kinetic and potential); Dissipation of power by a resistor; Power formula; Calculations involving power, work and energy.				
3.9 Capacitance/Capacitor	_	2	2	1
Operation and function of a capacitor; Factors affecting capacitance area of plates, distance between plates, number of plates, dielectric and dielectric constant, working voltage, voltage rating; Capacitor types, construction and function; Capacitor colour coding; Calculations of capacitance and voltage in series and parallel circuits; Exponential charge and discharge of a capacitor, time constants; Testing of capacitors.				
3.10 Magnetism				
(a) Theory of magnetism; Properties of a magnet; Action of a magnet suspended in the Earth's magnetic field; Magnetisation and demagnetisation; Magnetic shielding; Various types of magnetic material; Electromagnets construction and principles of operation; Hand clasp rules to determine: magnetic field around current carrying conductor;	-	2	2	1
(b) Magnetomotive force, field strength, magnetic flux density, permeability, hysteresis loop, retentivity, coercive force reluctance, saturation point, eddy currents; Precautions for care and storage of magnets.	_	2	2	1
Faraday's Law; Action of inducing a voltage in a conductor moving in a magnetic field; Induction principles; Effects of the following on the magnitude of an induced voltage: magnetic field strength, rate of change of flux, number of conductor turns; Mutual induction; The effect the rate of change of primary current and mutual inductance has on induced voltage; Factors affecting mutual inductance: number of turns in coil, physical size of coil, permeability of coil, position of coils with respect to each other; Lenz's Law and polarity determining rules; Back emf, self induction; Saturation point; Principle uses of inductors.		2	2	1
3.12 DC Motor/Generator Theory	_	2	2	1



		LE\	/EL	
MODULE 3. ELECTRICAL FUNDAMENTALS	А	B1	B2 B2L	В3
Basic motor and generator theory; Construction and purpose of components in DC generator; Operation of, and factors affecting output and direction of current flow in DC generators; Operation of, and factors affecting output power, torque, speed and direction of rotation of DC motors; Series wound, shunt wound and compound motors; Starter Generator construction.			321	
3.13 AC Theory  Sinusoidal waveform: phase, period, frequency, cycle; Instantaneous, average, root mean square, peak, peak to peak current values and calculations of these values, in relation to voltage, current and power; Triangular/Square waves; Single/3 phase principles.	1	2	2	1
3.14 Resistive (R), Capacitive (C) and Inductive (L) Circuits  Phase relationship of voltage and current in L, C and R circuits, parallel, series and series parallel;  Power dissipation in L, C and R circuits;  Impedance, phase angle, power factor and current calculations;  True power, apparent power and reactive power calculations.	_	2	2	1
3.15 Transformers  Transformer construction principles and operation; Transformer losses and methods for overcoming them; Transformer action under load and no-load conditions; Power transfer, efficiency, polarity markings; Calculation of line and phase voltages and currents; Calculation of power in a three phase system; Primary and Secondary current, voltage, turns ratio, power, efficiency; Auto transformers.	_	2	2	1
3.16 Filters  Operation, application and uses of the following filters: low pass, high pass, band pass, band stop.	_	1	1	-
3.17 AC Generators  Rotation of loop in a magnetic field and waveform produced; Operation and construction of revolving armature and revolving field type AC generators; Single phase, two phase and three phase alternators; Three phase star and delta connections advantages and uses; Permanent Magnet Generators.	_	2	2	1
3.18 AC Motors  Construction, principles of operation and characteristics of: AC synchronous and induction motors both single and polyphase; Methods of speed control and direction of rotation; Methods of producing a rotating field: capacitor, inductor, shaded or split pole.	_	2	2	1



# **MODULE 4. ELECTRONIC FUNDAMENTALS**

			LE\	/EL	
	MODULE 4. ELECTRONIC FUNDAMENTALS	А	B1	B2 B2L	В3
	conductors				
4.1.1 Di (a)	odes Diode symbols;	_	2	2	1
(a)	Diode characteristics and properties;		2	2	_
	Diodes in series and parallel;				
	Main characteristics and use of silicon controlled rectifiers (thyristors), light emitting diode, photo conductive diode,				
	varistor, rectifier diodes;				
	Functional testing of diodes.				
(b)	Materials, electron configuration, electrical properties; P and N type materials: effects of impurities on conduction,	_	_	2	_
	majority and minority characters;				
	PN junction in a semiconductor, development of a potential				
	across a PN junction in unbiased, forward biased and reverse biased conditions;				
	Diode parameters: peak inverse voltage, maximum forward				
	current, temperature, frequency, leakage current, power dissipation;				
	Operation and function of diodes in the following circuits:				
	clippers, clampers, full and half wave rectifiers, bridge				
	rectifiers, voltage doublers and triplers;  Detailed operation and characteristics of the following				
	devices: silicon controlled rectifier (thyristor), light emitting				
	diode, Schottky diode, photo conductive diode, varactor diode, varistor, rectifier diodes, Zener diode.				
4.1.2 Tr	ansistors				
(a)	Transistor symbols;	_	1	2	1
	Component description and orientation; Transistor characteristics and properties.				
(b)	Construction and operation of PNP and NPN transistors;	_	_	2	_
,	Base, collector and emitter configurations;				
	Testing of transistors; Basic appreciation of other transistor types and their uses;				
	Application of transistors: classes of amplifier (A, B, C);				
	Simple circuits including: bias, decoupling, feedback and				
	stabilisation; Multistage circuit principles: cascades, push-pull, oscillators,				
	multivibrators, flip-flop circuits.				
	tegrated Circuits		1		1
(a)	Description and operation of logic circuits and linear circuits/operational amplifiers;	_	1	_	1
(b)	Description and operation of logic circuits and linear circuits;	_	_	2	_
	Introduction to operation and function of an operational amplifier used as: integrator, differentiator, voltage follower,				
	comparator;				
	Operation and amplifier stages connecting methods: resistive				
	capacitive, inductive (transformer), inductive resistive (IR), direct;				

		LE\	/EL	
MODULE 4. ELECTRONIC FUNDAMENTALS	А	B1	B2 B2L	В3
Advantages and disadvantages of positive and negative feedback.				
4.2 Printed Circuit Boards  Description and use of printed circuit boards.	_	1	2	_
<ul> <li>4.3 Servomechanisms         <ul> <li>(a) Understanding of the following terms: Open and closed loop systems, feedback, follow up, analogue transducers;</li> <li>Principles of operation and use of the following synchro system components/features: resolvers, differential, control and torque, transformers, inductance and capacitance transmitters;</li> </ul> </li> </ul>	-	1	-	-
(b) Understanding of the following terms: Open and closed loop, follow up, servomechanism, analogue, transducer, null, damping, feedback, deadband; Construction operation and use of the following synchro system components: resolvers, differential, control and torque, E and I transformers, inductance transmitters, capacitance transmitters, synchronous transmitters; Servomechanism defects, reversal of synchro leads, hunting.	_	_	2	_

# **MODULE 5. DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT SYSTEMS**

MODULE 5. DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT			LEVEL		
SYSTEMS	А	B1.1 B1.3	B1.2 B1.4	B2 B2L	В3
5.1 Electronic Instrument Systems  Typical systems arrangements and cockpit layout of electronic instrument systems.	1	2	2	3	1
5.2 Numbering Systems  Numbering systems: binary, octal and hexadecimal;  Demonstration of conversions between the decimal and binary, octal and hexadecimal systems and vice versa.	_	1	_	2	-
5.3 Data Conversion  Analogue Data, Digital Data; Operation and application of analogue to digital, and digital to analogue converters, inputs and outputs, limitations of various types.	_	1	_	2	_
5.4 Data Buses  Operation of data buses in aircraft systems, including knowledge of ARINC and other specifications.  Aircraft Network/Ethernet.	_	2	-	2	-
<ul> <li>5.5 Logic Circuits</li> <li>(a) Identification of common logic gate symbols, tables and equivalent circuits;</li> <li>Applications used for aircraft systems, schematic diagrams.</li> </ul>	_	2	-	2	_
(b) Interpretation of logic diagrams.	_	_	_	2	-
<ul> <li>(a) Computer Structure</li> <li>(a) Computer terminology (including bit, byte, software, hardware, CPU, IC, and various memory devices such as RAM, ROM, PROM);</li> <li>Computer technology (as applied in aircraft systems).</li> </ul>	1	2	-	-	_
(b) Computer related terminology; Operation, layout and interface of the major components in a micro computer including their associated bus systems; Information contained in single and multiaddress instruction words; Memory associated terms; Operation of typical memory devices; Operation, advantages and disadvantages of the various data storage systems.	_	_	_	2	_
5.7 Microprocessors	_	_	_	2	_
Functions performed and overall operation of a microprocessor;  Basic operation of each of the following microprocessor elements: control and processing unit, clock, register, arithmetic logic unit.					
5.8 Integrated Circuits	-	_	_	2	_



MADELLE E DIGITAL TECHNIQUES (FLECTRONIC INCTRUMENT			LEVEL		
MODULE 5. DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT SYSTEMS	А	B1.1 B1.3	B1.2 B1.4	B2 B2L	В3
Operation and use of encoders and decoders; Function of encoder types; Uses of medium, large and very large scale integration.					
5.9 Multiplexing Operation, application and identification in logic diagrams of multiplexers and demultiplexers.	_	_	_	2	_
5.10 Fibre Optics  Advantages and disadvantages of fibre optic data transmission over electrical wire propagation; Fibre optic data bus; Fibre optic related terms; Terminations; Couplers, control terminals, remote terminals; Application of fibre optics in aircraft systems.	_	1	1	2	_
5.11 Electronic Displays  Principles of operation of common types of displays used in modern aircraft, including Cathode Ray Tubes, Light Emitting Diodes and Liquid Crystal Display.	-	2	1	2	1
5.12 Electrostatic Sensitive Devices  Special handling of components sensitive to electrostatic discharges;  Awareness of risks and possible damage, component and personnel anti-static protection devices.	1	2	2	2	1
5.13 Software Management Control  Awareness of restrictions, airworthiness requirements and possible catastrophic effects of unapproved changes to software programmes.	-	2	1	2	1
5.14 Electromagnetic Environment Influence of the following phenomena on maintenance practices for electronic system: EMC-Electromagnetic Compatibility EMI-Electromagnetic Interference HIRF-High Intensity Radiated Field Lightning/lightning protection.	_	2	2	2	1
General arrangement of typical electronic/digital aircraft systems and associated BITE (Built In Test Equipment) such as:  (a) For B1 and B2 only:  ACARS-ARINC Communication and Addressing and Reporting System  EICAS-Engine Indication and Crew Alerting System FBW-Fly-by-Wire FMS-Flight Management System IRS-Inertial Reference System; (b) For B1, B2 and B3:  ECAM-Electronic Centralised Aircraft Monitoring EFIS-Electronic Flight Instrument System GPS-Global Positioning System	_	2	2	2	1

### Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

Annex III (Part-66)

APPENDICES TO ANNEX III (Part-66)

MODULE 5. DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT	LEVEL				
SYSTEMS	А	B1.1 B1.3	B1.2 B1.4	B2 B2L	В3
TCAS-Traffic Alert Collision Avoidance System Integrated Modular Avionics Cabin Systems Information Systems.					

# **MODULE 6. MATERIALS AND HARDWARE**

		1.5	√EL	
MODULE 6. MATERIALS AND HARDWARE	^			D2
WOODOLE 6. WATERIALS AND HARDWARE	Α	B1	B2 B2L	В3
6.1 Aircraft Materials — Ferrous			DZL	
(a) Characteristics, properties and identification of common alloy	1	2	1	2
steels used in aircraft;	_	_	_	_
Heat treatment and application of alloy steels.				
(b) Testing of ferrous materials for hardness, tensile strength,	_	1	1	1
fatigue strength and impact resistance.				
6.2 Aircraft Materials — Non-Ferrous				
(a) Characteristics, properties and identification of common non-	1	2	1	2
ferrous materials used in aircraft;				
Heat treatment and application of non-ferrous materials;			_	
(b) Testing of non-ferrous material for hardness, tensile strength, fatigue strength and impact resistance.	_	1	1	1
6.3 Aircraft Materials — Composite and Non-Metallic				
6.3.1 Composite and non-metallic other than wood and fabric				
(a) Characteristics, properties and identification of common	1	2	2	2
composite and non-metallic materials, other than wood, used in aircraft;				
Sealant and bonding agents;				
(b) The detection of defects/deterioration in composite and	1	2	_	2
non-metallic material;	_	_		_
Repair of composite and non-metallic material.				
6.3.2 Wooden structures	1	2	_	2
Construction methods of wooden airframe structures;				
Characteristics, properties and types of wood and glue used in				
aeroplanes;				
Preservation and maintenance of wooden structure;  Types of defects in wood material and wooden structures;				
The detection of defects in wooden structure;				
Repair of wooden structure.				
6.3.3 Fabric covering	1	2	_	2
Characteristics, properties and types of fabrics used in				
aeroplanes;				
Inspections methods for fabric;				
Types of defects in fabric; Repair of fabric covering.				
6.4 Corrosion				
(a) Chemical fundamentals;	1	1	1	1
Formation by, galvanic action process, microbiological, stress;				
(b) Types of corrosion and their identification;	2	3	2	2
Causes of corrosion;				
Material types, susceptibility to corrosion.				
6.5 Fasteners	2	2	2	2
6.5.1 Screw threads	2	2	2	2
Screw nomenclature; Thread forms, dimensions and tolerances for standard threads				
used in aircraft;				
Measuring screw threads.				



		LE	/EL	
MODULE 6. MATERIALS AND HARDWARE	А	B1	B2 B2L	В3
6.5.2 Bolts, studs and screws  Bolt types: specification, identification and marking of aircraft bolts, international standards; Nuts: self locking, anchor, standard types; Machine screws: aircraft specifications; Studs: types and uses, insertion and removal; Self tapping screws, dowels.	2	2	2	2
6.5.3 Locking devices  Tab and spring washers, locking plates, split pins, pal-nuts, wire locking, quick release fasteners, keys, circlips, cotter pins.	2	2	2	2
6.5.4 Aircraft rivets Types of solid and blind rivets: specifications and identification, heat treatment.	1	2	1	2
<ul><li>6.6 Pipes and Unions</li><li>(a) Identification of, and types of rigid and flexible pipes and their connectors used in aircraft;</li></ul>	2	2	2	2
(b) Standard unions for aircraft hydraulic, fuel, oil, pneumatic and air system pipes.	2	2	1	2
6.7 Springs  Types of springs, materials, characteristics and applications.	_	2	1	1
6.8 Bearings Purpose of bearings, loads, material, construction; Types of bearings and their application.	1	2	2	1
6.9 Transmissions  Gear types and their application; Gear ratios, reduction and multiplication gear systems, driven and driving gears, idler gears, mesh patterns; Belts and pulleys, chains and sprockets.	1	2	2	1
6.10 Control Cables  Types of cables; End fittings, turnbuckles and compensation devices; Pulleys and cable system components; Bowden cables; Aircraft flexible control systems.	1	2	1	2
6.11 Electrical Cables and Connectors  Cable types, construction and characteristics; High tension and co-axial cables; Crimping; Connector types, pins, plugs, sockets, insulators, current and voltage rating, coupling, identification codes.	1	2	2	2

# **MODULE 7A. MAINTENANCE PRACTICES**

Regulation (EU) 2018/1142

*Note:* This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 7B.

	LEVEL		
MODULE 7A. MAINTENANCE PRACTICES	А	B1	B2 B2L
7.1 Safety Precautions-Aircraft and Workshop Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals. Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.	3	3	3
7.2 Workshop Practices  Care of tools, control of tools, use of workshop materials;  Dimensions, allowances and tolerances, standards of workmanship;  Calibration of tools and equipment, calibration standards.	3	3	3
7.3 Tools  Common hand tool types; Common power tool types; Operation and use of precision measuring tools; Lubrication equipment and methods. Operation, function and use of electrical general test equipment.	3	3	3
7.4 Avionic General Test Equipment  Operation, function and use of avionic general test equipment.	_	2	3
7.5 Engineering Drawings, Diagrams and Standards  Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.	1	2	2
7.6 Fits and Clearances  Drill sizes for bolt holes, classes of fits;  Common system of fits and clearances;  Schedule of fits and clearances for aircraft and engines;  Limits for bow, twist and wear;  Standard methods for checking shafts, bearings and other parts.	1	2	1
7.7 Electrical Wiring Interconnection System (EWIS)	1	3	3



		LEVEL	
MODULE 7A. MAINTENANCE PRACTICES	А	B1	B2 B2L
Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Identification of wire types, their inspection criteria and damage tolerance. Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding; EWIS installations, inspection, repair, maintenance and cleanliness standards.			
7.8 Riveting  Riveted joints, rivet spacing and pitch;  Tools used for riveting and dimpling; Inspection of riveted joints.	1	2	_
7.9 Pipes and Hoses  Bending and belling/flaring aircraft pipes; Inspection and testing of aircraft pipes and hoses; Installation and clamping of pipes.	1	2	_
7.10 Springs	1	2	_
Inspection and testing of springs.	1	2	
7.11 Bearings  Testing, cleaning and inspection of bearings; Lubrication requirements of bearings; Defects in bearings and their causes.	1	2	
7.12 Transmissions Inspection of gears, backlash; Inspection of belts and pulleys, chains and sprockets; Inspection of screw jacks, lever devices, push-pull rod systems.	1	2	_
7.13 Control Cables  Swaging of end fittings; Inspection and testing of control cables; Bowden cables; aircraft flexible control systems.	1	2	_
7.14 Material handling 7.14.1 Sheet Metal  Marking out and calculation of bend allowance; Sheet metal working, including bending and forming; Inspection of sheet metal work.	_	2	-
7.14.2 Composite and non-metallic  Bonding practices; Environmental conditions; Inspection methods.	_	2	_
7.15 Welding, Brazing, Soldering and Bonding		2	2
<ul> <li>(a) Soldering methods; inspection of soldered joints.</li> <li>(b) Welding and brazing methods;         Inspection of welded and brazed joints;         Bonding methods and inspection of bonded joints.     </li> </ul>	_	2	2

		LEVEL	
MODULE 7A. MAINTENANCE PRACTICES	А	B1	B2 B2L
7.16 Aircraft Weight and Balance (a) Centre of Gravity/Balance limits calculation: use of relevant documents;	-	2	2
<ul><li>(b) Preparation of aircraft for weighing;</li><li>Aircraft weighing.</li></ul>	_	2	_
7.17 Aircraft Handling and Storage  Aircraft taxiing/towing and associated safety precautions; Aircraft jacking, chocking, securing and associated safety precautions; Aircraft storage methods; Refuelling/defuelling procedures; De-icing/anti-icing procedures; Electrical, hydraulic and pneumatic ground supplies. Effects of environmental conditions on aircraft handling and operation.	2	2	2
7.18 Disassembly, Inspection, Repair and Assembly Techniques  (a) Types of defects and visual inspection techniques;  Corrosion removal, assessment and reprotection;	2	3	3
<ul><li>(b) General repair methods, Structural Repair Manual;</li><li>Ageing, fatigue and corrosion control programmes;</li></ul>	_	2	_
(c) Non-destructive inspection techniques including, penetrant, radiographic, eddy current, ultrasonic and boroscope methods;	_	2	1
(d) Disassembly and re-assembly techniques;	2	2	2
(e) Trouble shooting techniques.	_	2	2
7.19 Abnormal Events			
(a) Inspections following lightning strikes and HIRF penetration;	2	2	2
(b) Inspections following abnormal events such as heavy landings and flight through turbulence.	2	2	_
7.20 Maintenance Procedures  Maintenance planning; Modification procedures; Stores procedures; Certification/release procedures; Interface with aircraft operation; Maintenance Inspection/Quality Control/Quality Assurance; Additional maintenance procedures; Control of life limited components.	1	2	2



# **MODULE 7B. MAINTENANCE PRACTICES**

Regulation (EU) 2018/1142

*Note:* The scope of this module shall reflect the technology of aeroplanes relevant to the B3 category.

33 34.1. Safety Precautions-Aircraft and Workshop Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals. Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.  7.2. Workshop Practices Care of tools, control of tools, use of workshop materials; Dimensions, allowances and tolerances, standards of workmanship; Calibration of tools and equipment, calibration standards.  7.3. Tools Common hand tool types; Operation and use of precision measuring tools; Lubrication equipment and methods; Operation, function and use of electrical general test equipment.  7.4. Avionic General Test Equipment Operation, function and use of electrical general test equipment.  7.5. Engineering Drawings, Diagrams and Standards Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.  7.6 Fits and Clearances Drill sizes for bolt holes, classes of fits; Common system of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.  7.7 Electrical Cables and Connectors Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.		LEVEL
Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals.  Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.  7.2 Workshop Practices  Care of tools, control of tools, use of workshop materials; Dimensions, allowances and tolerances, standards of workmanship; Calibration of tools and equipment, calibration standards.  7.3 Tools  Common hand tool types; Common power tool types; Operation and use of precision measuring tools; Lubrication equipment and methods; Operation, function and use of electrical general test equipment.  7.4 Avionic General Test Equipment  Operation, function and use of avionic general test equipment.  7.5 Engineering Drawings, Diagrams and Standards Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.  7.6 Fits and Clearances Drill sizes for bolt holes, classes of fits; Common system of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.  7.7 Electrical Cables and Connectors Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.	MODULE 7B. MAINTENANCE PRACTICES	В3
Care of tools, control of tools, use of workshop materials; Dimensions, allowances and tolerances, standards of workmanship; Calibration of tools and equipment, calibration standards.  7.3 Tools  Common hand tool types; Operation and use of precision measuring tools; Lubrication equipment and methods; Operation, function and use of electrical general test equipment.  7.4 Avionic General Test Equipment Operation, function and use of avionic general test equipment.  7.5 Engineering Drawings, Diagrams and Standards Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.  7.6 Fits and Clearances Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.  7.7 Electrical Cables and Connectors Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.	Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals.  Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing	3
Common hand tool types; Common power tool types; Operation and use of precision measuring tools; Lubrication equipment and methods; Operation, function and use of electrical general test equipment.  7.4 Avionic General Test Equipment Operation, function and use of avionic general test equipment.  7.5 Engineering Drawings, Diagrams and Standards Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.  7.6 Fits and Clearances Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.  7.7 Electrical Cables and Connectors Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.  7.8 Riveting	Care of tools, control of tools, use of workshop materials; Dimensions, allowances and tolerances, standards of workmanship;	3
Operation, function and use of avionic general test equipment.  7.5 Engineering Drawings, Diagrams and Standards  Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.  7.6 Fits and Clearances  Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.  7.7 Electrical Cables and Connectors  Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.  7.8 Riveting	Common hand tool types; Common power tool types; Operation and use of precision measuring tools; Lubrication equipment and methods;	3
7.5 Engineering Drawings, Diagrams and Standards Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.  7.6 Fits and Clearances Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.  7.7 Electrical Cables and Connectors Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.  7.8 Riveting  2		1
Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.  7.7 Electrical Cables and Connectors  Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.  7.8 Riveting	7.5 Engineering Drawings, Diagrams and Standards  Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL;	2
Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.  7.8 Riveting	Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear;	2
	Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps,	2
Riveted joints, rivet spacing and pitch; Tools used for riveting and dimpling; Inspection of riveted joints.	Riveted joints, rivet spacing and pitch; Tools used for riveting and dimpling;	2
7.9 Pipes and Hoses 2		2



MODULE 7B. MAINTENANCE PRACTICES	LEVEL
Bending and belling/flaring aircraft pipes; Inspection and testing of aircraft pipes and hoses; Installation and clamping of pipes.	В3
7.10 Springs Inspection and testing of springs.	2
7.11 Bearings	2
Testing, cleaning and inspection of bearings; Lubrication requirements of bearings; Defects in bearings and their causes.	_
7.12 Transmissions	2
Inspection of gears, backlash; Inspection of belts and pulleys, chains and sprockets; Inspection of screw jacks, lever devices, push-pull rod systems.	
7.13 Control Cables	2
Swaging of end fittings; Inspection and testing of control cables; Bowden cables; aircraft flexible control systems.	
7.14 Material handling	
7.14.1 Sheet Metal  Marking out and calculation of bend allowance;  Sheet metal working, including bending and forming;  Inspection of sheet metal work.	2
7.14.2 Composite and non-metallic	2
Bonding practices; Environmental conditions; Inspection methods.	
7.15 Welding, Brazing, Soldering and Bonding	
<ul><li>(a) Soldering methods; inspection of soldered joints;</li><li>(b) Welding and brazing methods;</li></ul>	2
Inspection of welded and brazed joints; Bonding methods and inspection of bonded joints.	Z
7.16 Aircraft Weight and Balance	2
<ul><li>(a) Centre of Gravity/Balance limits calculation: use of relevant documents;</li><li>(b) Preparation of aircraft for weighing;</li></ul>	2
Aircraft weighing.	2
7.17 Aircraft Handling and Storage	2
Aircraft taxiing/towing and associated safety precautions; Aircraft jacking, chocking, securing and associated safety precautions; Aircraft storage methods; Refuelling/defuelling procedures; De-icing/anti-icing procedures; Electrical, hydraulic and pneumatic ground supplies; Effects of environmental conditions on aircraft handling and operation.	
<ul> <li>7.18 Disassembly, Inspection, Repair and Assembly Techniques</li> <li>(a) Types of defects and visual inspection techniques;</li> <li>Corrosion removal, assessment and reprotection;</li> </ul>	3
(b) General repair methods, Structural Repair Manual; Ageing, fatigue and corrosion control programmes;	2

## Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

	MODULE 7B. MAINTENANCE PRACTICES	LEVEL B3
(c)	Non-destructive inspection techniques including, penetrant, radiographic, eddy current, ultrasonic and boroscope methods;	2
(d)	Disassembly and re-assembly techniques;	2
(e)	Trouble shooting techniques.	2
7.19 Abno	rmal Events	
(a)	Inspections following lightning strikes and HIRF penetration.	2
(b)	Inspections following abnormal events such as heavy landings and flight through turbulence.	2
7.20 Main	tenance Procedures	2
Modi Store Certi Inter Main Addit	tenance planning;  ification procedures;  is procedures;  fication/release procedures;  face with aircraft operation;  tenance Inspection/Quality Control/Quality Assurance;  tional maintenance procedures;  rol of life limited components.	

# **MODULE 8. BASIC AERODYNAMICS**

		LE\	/EL	
MODULE 8. BASIC AERODYNAMICS	А	B1	B2 B2L	В3
8.1 Physics of the Atmosphere	1	2	2	1
International Standard Atmosphere (ISA), application to aerodynamics.				
8.2 Aerodynamics	1	2	2	1
Airflow around a body; Boundary layer, laminar and turbulent flow, free stream flow, relative airflow, upwash and downwash, vortices, stagnation; The terms: camber, chord, mean aerodynamic chord, profile (parasite) drag, induced drag, centre of pressure, angle of attack, wash in and wash out, fineness ratio, wing shape and aspect ratio; Thrust, Weight, Aerodynamic Resultant; Generation of Lift and Drag: Angle of Attack, Lift coefficient, Drag coefficient, polar curve, stall; Aerofoil contamination including ice, snow, frost.				
8.3 Theory of Flight	1	2	2	1
Relationship between lift, weight, thrust and drag; Glide ratio; Steady state flights, performance; Theory of the turn; Influence of load factor: stall, flight envelope and structural limitations; Lift augmentation.				
8.4 Flight Stability and Dynamics	1	2	2	1
Longitudinal, lateral and directional stability (active and passive).				

### **MODULE 9A. HUMAN FACTORS**

Regulation (EU) 2018/1142

*Note:* This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 9B.

		LEVEL	
MODULE 9A. HUMAN FACTORS	А	B1	B2 B2L
9.1 General	1	2	2
The need to take human factors into account; Incidents attributable to human factors/human error; 'Murphy's' law.			
9.2 Human Performance and Limitations  Vision;  Hearing; Information processing; Attention and perception; Memory; Claustrophobia and physical access.	1	2	2
9.3 Social Psychology  Responsibility: individual and group; Motivation and de-motivation; Peer pressure; 'Culture' issues; Team working; Management, supervision and leadership.	1	1	1
9.4 Factors Affecting Performance Fitness/health; Stress: domestic and work related; Time pressure and deadlines; Workload: overload and underload; Sleep and fatigue, shiftwork; Alcohol, medication, drug abuse.	2	2	2
9.5 Physical Environment  Noise and fumes; Illumination; Climate and temperature; Motion and vibration; Working environment.	1	1	1
9.6 Tasks  Physical work; Repetitive tasks; Visual inspection; Complex systems.	1	1	1
9.7 Communication  Within and between teams;  Work logging and recording;  Keeping up to date, currency;  Dissemination of information.	2	2	2
9.8 Human Error	1	2	2

### Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

	LEVEL			
MODULE 9A. HUMAN FACTORS	А	B1	B2 B2L	
Error models and theories; Types of error in maintenance tasks; Implications of errors (i.e. accidents); Avoiding and managing errors.				
9.9 Hazards in the Workplace  Recognising and avoiding hazards;  Dealing with emergencies.	1	2	2	



### **MODULE 9B. HUMAN FACTORS**

Regulation (EU) No 1321/2014

Note: The scope of this module shall reflect the less demanding environment of maintenance for B3 licence holders.

MODULE 9B. HUMAN FACTORS	LEVEL B3
9.1 General  The need to take human factors into account; Incidents attributable to human factors/human error; 'Murphy's' law.	2
9.2 Human Performance and Limitations  Vision;  Hearing; Information processing; Attention and perception; Memory; Claustrophobia and physical access.	2
9.3 Social Psychology  Responsibility: individual and group;  Motivation and de-motivation;  Peer pressure;  'Culture' issues;  Team working;  Management, supervision and leadership.	1
9.4 Factors Affecting Performance Fitness/health; Stress: domestic and work related; Time pressure and deadlines; Workload: overload and underload; Sleep and fatigue, shiftwork; Alcohol, medication, drug abuse.	2
9.5 Physical Environment  Noise and fumes; Illumination; Climate and temperature; Motion and vibration; Working environment.	1
9.6 Tasks  Physical work; Repetitive tasks; Visual inspection; Complex systems.	1
9.7 Communication  Within and between teams;  Work logging and recording;  Keeping up to date, currency;  Dissemination of information.	2
9.8 Human Error	2

MODULE 9B. HUMAN FACTORS	LEVEL B3
Error models and theories;	
Types of error in maintenance tasks;	
Implications of errors (i.e. accidents);	
Avoiding and managing errors.	
9.9 Hazards in the Workplace	2
Recognising and avoiding hazards; Dealing with emergencies.	

# **MODULE 10. AVIATION LEGISLATION (Appendix I to Part-66)**

	LEVEL			
MODULE 10. AVIATION LEGISLATION	А	B1	B2 B2L	В3
10.1 Regulatory Framework  Role of the International Civil Aviation Organisation; Role of the European Commission; Role of EASA; Role of the Member States and National Aviation Authorities; Regulations (EU) 2018/1139, Regulation (EU) No 748/2012, Regulation (EU) No 1321/2014 and Regulation (EU) No 376/2014; Relation between the various Annexes (Parts) of Regulation (EU) No 748/2012, Regulation (EU) No 1321/2014 and Regulation (EU) No 965/2012	1	1	1	1
10.2 Certifying Staff — Maintenance  Detailed understanding of Part-66.	2	2	2	2
10.3 Approved Maintenance Organisations  Detailed understanding of Part-145 and Part-M Subpart F.	2	2	2	2
10.4 Air operations  General understanding of Regulation (EU) No 965/2012.  Air Operators Certificates; Operator's responsibilities, in particular regarding continuing airworthiness and maintenance; Aircraft Maintenance Programme; MEL//CDL; Documents to be carried on board; Aircraft placarding (markings).	1	1	1	1
<ul> <li>10.5 Certification of aircraft, parts and appliances</li> <li>(a) General</li> <li>General understanding of Part 21 and EASA certification</li> <li>specifications CS-23, 25, 27, 29.</li> </ul>	_	1	1	1
(b) Documents Certificate of Airworthiness; restricted certificates of airworthiness and permit to fly; Certificate of Registration; Noise Certificate; Weight Schedule; Radio Station Licence and Approval.	_	2	2	2
10.6 Continuing airworthiness  Detailed understanding of Part 21 provisions related to continuing airworthiness.  Detailed understanding of Part-M.	2	2	2	2
10.7 Applicable National and International Requirements for (if not superseded by EU requirements).				

			LE\	/EL	
	MODULE 10. AVIATION LEGISLATION	А	B1	B2 B2L	В3
(a)	Maintenance Programmes, Maintenance checks and inspections; Airworthiness Directives; Service Bulletins, manufacturers service information; Modifications and repairs; Maintenance documentation: maintenance manuals, structural repair manual, illustrated parts catalogue, etc.; Only for A to B2 licences: Master Minimum Equipment Lists, Minimum Equipment List, Dispatch Deviation Lists;	1	2	2	2
(b)	Continuing airworthiness;  Minimum equipment requirements — Test flights;  Only for B1 and B2 licences:  ETOPS, maintenance and dispatch requirements;  All Weather Operations, Category 2/3 operations.	_	1	1	1

# MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LEV	/EL
	A1	B1.1
<ul> <li>11.1 Theory of Flight</li> <li>11.1.1. Aeroplane Aerodynamics and Flight Controls</li> <li>Operation and effect of:  — roll control: ailerons and spoilers,</li> <li>— pitch control: elevators, stabilators, variable incidence stabilisers and canards,</li> <li>— yaw control, rudder limiters;</li> <li>Control using elevons, ruddervators;</li> <li>High lift devices, slots, slats, flaps, flaperons;</li> <li>Drag inducing devices, spoilers, lift dumpers, speed brakes;</li> <li>Effects of wing fences, saw tooth leading edges;</li> <li>Boundary layer control using, vortex generators, stall wedges or leading edge devices;</li> <li>Operation and effect of trim tabs, balance and antibalance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.</li> </ul>	1	2
11.1.2. High Speed Flight  Speed of sound, subsonic flight, transonic flight, supersonic flight;  Mach number, critical Mach number, compressibility buffet, shock wave, aerodynamic heating, area rule;  Factors affecting airflow in engine intakes of high speed aircraft;  Effects of sweepback on critical Mach number.	1	2
<ul> <li>11.2 Airframe Structures — General Concepts         <ul> <li>(a) Airworthiness requirements for structural strength;</li> <li>Structural classification, primary, secondary and tertiary;</li> <li>Fail safe, safe life, damage tolerance concepts;</li> <li>Zonal and station identification systems;</li> <li>Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue;</li> <li>Drains and ventilation provisions;</li> <li>System installation provisions;</li> <li>Lightning strike protection provision;</li> <li>Aircraft bonding.</li> </ul> </li> </ul>	2	2
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	1	2
11.3 Airframe Structures — Aeroplanes 11.3.1 Fuselage (ATA 52/53/56)  Construction and pressurisation sealing; Wing, stabiliser, pylon and undercarriage attachments; Seat installation and cargo loading system; Doors and emergency exits: construction, mechanisms, operation and safety devices; Windows and windscreen construction and mechanisms.	1	2
11.3.2 Wings (ATA 57)	1	2



MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LE\	
Construction; Fuel storage; Landing gear, pylon, control surface and high lift/drag attachments.	A1	B1.1
11.3.3 Stabilisers (ATA 55)  Construction;  Control surface attachment.	1	2
11.3.4 Flight Control Surfaces (ATA 55/57)  Construction and attachment;  Balancing — mass and aerodynamic.	1	2
11.3.5 Nacelles/Pylons (ATA 54)  Nacelles/Pylons:  — Construction,  — Firewalls,  — Engine mounts.	1	2
11.4 Air Conditioning and Cabin Pressurisation (ATA 21) 11.4.1 Air supply Sources of air supply including engine bleed, APU and ground cart.	1	2
11.4.2 Air Conditioning  Air conditioning systems;  Air cycle and vapour cycle machines;  Distribution systems;  Flow, temperature and humidity control system.	1	3
11.4.3 Pressurisation  Pressurisation systems;  Control and indication including control and safety valves;  Cabin pressure controllers.	1	3
11.4.4 Safety and warning devices  Protection and warning devices.	1	3
11.5 Instruments/Avionic Systems 11.5.1 Instrument Systems (ATA 31)  Pitot static: altimeter, air speed indicator, vertical speed indicator; Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; Compasses: direct reading, remote reading; Angle of attack indication, stall warning systems; Glass cockpit; Other aircraft system indication.	1	2
11.5.2 Avionic Systems  Fundamentals of system lay-outs and operation of:  — Auto Flight (ATA 22),  — Communications (ATA 23),  — Navigation Systems (ATA 34).	1	1
11.6 Electrical Power (ATA 24)	1	3



MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LE\	/EL B1.1
Batteries Installation and Operation; DC power generation; AC power generation; Emergency power generation; Voltage regulation; Power distribution; Inverters, transformers, rectifiers; Circuit protection; External/Ground power.		
<ul><li>11.7 Equipment and Furnishings (ATA 25)</li><li>(a) Emergency equipment requirements;</li><li>Seats, harnesses and belts.</li></ul>	2	2
(b) Cabin lay-out; Equipment lay-out; Cabin Furnishing installation; Cabin entertainment equipment; Galley installation; Cargo handling and retention equipment; Airstairs.	1	1
<ul> <li>11.8 Fire Protection (ATA 26)</li> <li>(a) Fire and smoke detection and warning systems;</li> <li>Fire extinguishing systems;</li> <li>System tests;</li> </ul>	1	3
(b) Portable fire extinguisher.	1	2
Primary controls: aileron, elevator, rudder, spoiler; Trim control; Active load control; High lift devices; Lift dump, speed brakes; System operation: manual, hydraulic, pneumatic, electrical, fly-by-wire; Artificial feel, Yaw damper, Mach trim, rudder limiter, gust lock systems; Balancing and rigging; Stall protection/warning system.	1	3
System lay-out; Fuel tanks; Supply systems; Dumping, venting and draining; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling; Longitudinal balance fuel systems.	1	3
11.11 Hydraulic Power (ATA 29)	1	3



MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LEV	/EL
WODDLE TTA. TORBLINE AEROPLANE AERODTNAINICS, STRUCTURES AND STSTEINS	A1	B1.1
System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical, pneumatic; Emergency pressure generation; Filters; Pressure Control; Power distribution; Indication and warning systems; Interface with other systems.		
11.12 Ice and Rain Protection (ATA 30)	1	3
Ice formation, classification and detection; Anti-icing systems: electrical, hot air and chemical; De-icing systems: electrical, hot air, pneumatic and chemical; Rain repellent; Probe and drain heating; Wiper systems.		
11.13 Landing Gear (ATA 32)	2	3
Construction, shock absorbing; Extension and retraction systems: normal and emergency; Indications and warning; Wheels, brakes, antiskid and autobraking; Tyres; Steering; Air-ground sensing.		
11.14 Lights (ATA 33)	2	3
External: navigation, anti collision, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.		
11.15 Oxygen (ATA 35)	1	3
System lay-out: cockpit, cabin; Sources, storage, charging and distribution; Supply regulation; Indications and warnings.		
11.16 Pneumatic/Vacuum (ATA 36)	1	3
System lay-out; Sources: engine/APU (Auxiliary Power Unit), compressors, reservoirs, ground supply; Pressure and vacuum pumps; Pressure control; Distribution; Indications and warnings; Interfaces with other systems.		
11.17 Water/Waste (ATA 38)  Water system lay-out, supply, distribution, servicing and draining;  Toilet system lay-out, flushing and servicing;	2	3
Corrosion aspects.  11.18 On Board Maintenance Systems (ATA 45)	1	2
11.10 Oil bould Widiliterialice Systems (ATA 43)	1	2

MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LEV	/EL
	A1	B1.1
Central maintenance computers; Data loading system; Electronic library system; Printing; Structure monitoring (damage tolerance monitoring).		
11.19 Integrated Modular Avionics (ATA42)	1	2
Functions that may be typically integrated in the Integrated Modular Avionic (IMA) modules are, among others:  Bleed Management, Air Pressure Control, Air Ventilation and Control, Avionics and Cockpit Ventilation Control, Temperature Control, Air Traffic Communication, Avionics Communication Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical System BITE, Fuel Management, Braking Control, Steering Control, Landing Gear Extension and Retraction, Tyre Pressure Indication, Oleo Pressure Indication, Brake Temperature Monitoring, etc.  Core System; Network Components.	-	2
11.20 Cabin Systems (ATA44)	1	2
The units and components which furnish a means of entertaining the passengers and providing communication within the aircraft (Cabin Intercommunication Data System (CIDS)) and between the aircraft cabin and ground stations (Cabin Network Service (CNS)). They include voice, data, music and video transmissions.  CIDS provides an interface between cockpit/cabin crew and cabin systems. These systems support data exchange between the different related Line Replaceable Units (LRUs) and they are typically operated via Flight Attendant Panels (FAPs).  CNS typically consists of a server, interfacing with, among others, the following systems:		
<ul> <li>Data/Radio Communication;</li> <li>Cabin Core System (CCS);</li> <li>In-flight Entertainment System (IFES);</li> <li>External Communication System (ECS);</li> <li>Cabin Mass Memory System (CMMS);</li> <li>Cabin Monitoring System (CMS);</li> <li>Miscellaneous Cabin Systems (MCSs).</li> <li>CNS may host functions such as:</li> <li>access to pre-departure/departure reports;</li> </ul>		
— access to pre-departure/departure reports,  — e-mail/intranet/internet access; passenger database.		
11.21 Information Systems (ATA46)  The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. Includes units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller. Does not include units or components installed for other uses and shared with other systems, such as flight deck printer or general use display.	1	2
Typical examples include Air Traffic and Information Management Systems and Network Server Systems Aircraft General Information System; Flight Deck Information System; Maintenance Information System; Passenger Cabin Information System; Miscellaneous Information System.		



# MODULE 11B. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Regulation (EU) 2018/1142

*Note 1:* This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 11C.

*Note 2:* The scope of this Module shall reflect the technology of aeroplanes pertinent to the A2 and B1.2 subcategory.

MODULE 11B. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LE\	/EL B1.2
<ul> <li>11.1 Theory of Flight</li> <li>11.1.1 Aeroplane Aerodynamics and Flight Controls</li> <li>Operation and effect of:  — roll control: ailerons and spoilers,  — pitch control: elevators, stabilators, variable incidence stabilisers and canards,  — yaw control, rudder limiters;  Control using elevons, ruddervators;  High lift devices, slots, slats, flaps, flaperons;  Drag inducing devices, spoilers, lift dumpers, speed brakes;  Effects of wing fences, saw tooth leading edges;  Boundary layer control using, vortex generators, stall wedges or leading edge devices;  Operation and effect of trim tabs, balance and antibalance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.</li> </ul>	1	2
11.1.2. High Speed Flight — N/A	_	_
11.2 Airframe Structures — General Concepts  (a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision; Aircraft bonding.	2	2
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	1	2
11.3 Airframe Structures — Aeroplanes 11.3.1 Fuselage (ATA 52/53/56)  Construction and pressurisation sealing; Wing, tail-plane, pylon and undercarriage attachments; Seat installation; Doors and emergency exits: construction and operation; Windows and windscreen attachment.	1	2
11.3.2 Wings (ATA 57)	1	2



MODULE 11B. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LE\	
Construction; Fuel storage; Landing gear, pylon, control surface and high lift/drag attachments.	A2	B1.2
11.3.3 Stabilisers (ATA 55)	1	2
Construction; Control surface attachment.		
11.3.4 Flight Control Surfaces (ATA 55/57)	1	2
Construction and attachment; Balancing — mass and aerodynamic.		
11.3.5 Nacelles/Pylons (ATA 54)	1	2
Nacelles/Pylons:  — Construction,  — Firewalls,  — Engine mounts.		
11.4 Air Conditioning and Cabin Pressurisation (ATA 21)	1	3
Pressurisation and air conditioning systems; Cabin pressure controllers, protection and warning devices; Heating systems.		
11.5 Instruments/Avionic Systems 11.5.1 Instrument Systems (ATA 31)	1	2
Pitot static: altimeter, air speed indicator, vertical speed indicator; Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; Compasses: direct reading, remote reading; Angle of attack indication, stall warning systems; Glass cockpit; Other aircraft system indication.		
11.5.2 Avionic Systems	1	1
Fundamentals of system lay-outs and operation of:  — Auto Flight (ATA 22),  — Communications (ATA 23),  — Navigation Systems (ATA 34).		
11.6 Electrical Power (ATA 24)	1	3
Batteries Installation and Operation; DC power generation; Voltage regulation; Power distribution; Circuit protection; Inverters, transformers.		
11.7 Equipment and Furnishings (ATA 25)		
(a) Emergency equipment requirements; Seats, harnesses and belts;	2	2
(b) Cabin lay-out; Equipment lay-out; Cabin Furnishing installation; Cabin entertainment equipment; Galley installation; Cargo handling and retention equipment; Airstairs.	1	1



MODULE 11B. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LE\	/EL
	A2	B1.2
<ul> <li>11.8 Fire Protection (ATA 26)</li> <li>(a) Fire and smoke detection and warning systems;</li> <li>Fire extinguishing systems;</li> <li>System tests;</li> </ul>	1	3
(b) Portable fire extinguisher.	1	2
11.9 Flight Controls (ATA 27)	1	3
Primary controls: aileron, elevator, rudder; Trim tabs; High lift devices; System operation: manual; Gust locks; Balancing and rigging; Stall warning system.		
11.10 Fuel Systems (ATA 28)	1	3
System lay-out; Fuel tanks; Supply systems; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.		
11.11 Hydraulic Power (ATA 29)	1	3
System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical; Filters; Pressure Control; Power distribution; Indication and warning systems.		
11.12 Ice and Rain Protection (ATA 30)	1	3
Ice formation, classification and detection;  De-icing systems: electrical, hot air, pneumatic and chemical;  Probe and drain heating;  Wiper systems.		
11.13 Landing Gear (ATA 32)	2	3
Construction, shock absorbing; Extension and retraction systems: normal and emergency; Indications and warning; Wheels, brakes, antiskid and autobraking; Tyres; Steering; Air-ground sensing.		
11.14 Lights (ATA 33)	2	3
External: navigation, anti collision, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.		
11.15 Oxygen (ATA 35)	1	3

MODULE 11D DISTON AFRODI AND AFRODVANAMICS STRUCTURES AND SYSTEMS	LE\	/EL
MODULE 11B. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	A2	B1.2
System lay-out: cockpit, cabin; Sources, storage, charging and distribution; Supply regulation; Indications and warnings.		
System lay-out; Sources: engine/APU, compressors, reservoirs, ground supply; Pressure and vacuum pumps; Pressure control; Distribution; Indications and warnings; Interfaces with other systems.	1	3
11.17 Water/Waste (ATA 38)  Water system lay-out, supply, distribution, servicing and draining;  Toilet system lay-out, flushing and servicing;  Corrosion aspects.	2	3

# MODULE 11C. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Regulation (EU) No 1321/2014

*Note:* The scope of this module shall reflect the technology of aeroplanes pertinent to the B3 category.

MODULE 11C. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LEVEL B3
11.1 Theory of Flight Aeroplane Aerodynamics and Flight Controls Operation and effect of: — roll control: ailerons, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices, slots, slats, flaps, flaperons; Drag inducing devices, lift dumpers, speed brakes; Effects of wing fences, saw tooth leading edges; Boundary layer control using, vortex generators, stall wedges or leading edge devices; Operation and effect of trim tabs, balance and anti-balance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.	1
11.2 Airframe Structures — General Concepts  (a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision; Aircraft bonding;	2
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	2
11.3 Airframe Structures — Aeroplanes 11.3.1 Fuselage (ATA 52/53/56)  Construction; Wing, tail-plane, pylon and undercarriage attachments; Seat installation; Doors and emergency exits: construction and operation; Window and windscreen attachment.	1
11.3.2 Wings (ATA 57)  Construction; Fuel storage; Landing gear, pylon, control surface and high lift/drag attachments.	1
11.3.3 Stabilisers (ATA 55)  Construction; Control surface attachment.	1
11.3.4 Flight Control Surfaces (ATA 55/57)  Construction and attachment;	1



MODULE 11C. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LEVEL B3
Balancing — mass and aerodynamic.	
11.3.5 Nacelles/Pylons (ATA 54)  Nacelles/Pylons:  — Construction,  — Firewalls,  — Engine mounts.	1
11.4 Air Conditioning (ATA 21)  Heating and ventilation systems.	1
11.5 Instruments/Avionic Systems 11.5.1 Instrument Systems (ATA 31)  Pitot static: altimeter, air speed indicator, vertical speed indicator; Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; Compasses: direct reading, remote reading; Angle of attack indication, stall warning systems; Glass cockpit; Other aircraft system indication.	1
11.5.2 Avionic Systems  Fundamentals of system lay-outs and operation of:  — Auto Flight (ATA 22),  — Communications (ATA 23),  — Navigation Systems (ATA 34).	1
11.6 Electrical Power (ATA 24)  Batteries Installation and Operation;  DC power generation;  Voltage regulation;  Power distribution;  Circuit protection;  Inverters, transformers.	2
11.7 Equipment and Furnishings (ATA 25)  Emergency equipment requirements;  Seats, harnesses and belts.	2
11.8 Fire Protection (ATA 26)  Portable fire extinguisher.	2
11.9 Flight Controls (ATA 27)  Primary controls: aileron, elevator, rudder; Trim tabs; High lift devices; System operation: manual; Gust locks; Balancing and rigging; Stall warning system.	3
11.10 Fuel Systems (ATA 28)  System lay-out; Fuel tanks; Supply systems; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.	2



MODULE 11C. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS	LEVEL B3
11.11 Hydraulic Power (ATA 29)  System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical; Filters; Pressure Control; Power distribution; Indication and warning systems.	2
11.12 Ice and Rain Protection (ATA 30)  Ice formation, classification and detection;  De-icing systems: electrical, hot air, pneumatic and chemical;  Probe and drain heating;  Wiper systems.	1
11.13 Landing Gear (ATA 32)  Construction, shock absorbing; Extension and retraction systems: normal and emergency; Indications and warning; Wheels, brakes, antiskid and autobraking; Tyres; Steering.	2
11.14 Lights (ATA 33)  External: navigation, anti collision, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.	2
11.15 Oxygen (ATA 35)  System lay-out: cockpit, cabin; Sources, storage, charging and distribution; Supply regulation; Indications and warnings.	2
11.16 Pneumatic/Vacuum (ATA 36)  System lay-out; Sources: engine/APU, compressors, reservoirs, ground supply; Pressure and vacuum pumps Pressure control; Distribution; Indications and warnings; Interfaces with other systems.	2



# MODULE 12. HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS

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MODULE 12. HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS	A3 A4	B1.3 B1.4
12.1 Theory of Flight — Rotary Wing Aerodynamics  Terminology; Effects of gyroscopic precession; Torque reaction and directional control; Dissymmetry of lift, Blade tip stall; Translating tendency and its correction; Coriolis effect and compensation; Vortex ring state, power settling, overpitching; Auto-rotation; Ground effect.	1	2
Cyclic control; Collective control; Swashplate; Yaw control: Anti-Torque Control, Tail rotor, bleed air; Main Rotor Head: Design and Operation features; Blade Dampers: Function and construction; Rotor Blades: Main and tail rotor blade construction and attachment; Trim control, fixed and adjustable stabilisers; System operation: manual, hydraulic, electrical and fly-by-wire; Artificial feel; Balancing and rigging.	2	3
12.3 Blade Tracking and Vibration Analysis  Rotor alignment; Main and tail rotor tracking; Static and dynamic balancing; Vibration types, vibration reduction methods; Ground resonance.	1	3
12.4 Transmission  Gear boxes, main and tail rotors; Clutches, free wheel units and rotor brake; Tail rotor drive shafts, flexible couplings, bearings, vibration dampers and bearing hangers.	1	3
12.5 Airframe Structures  (a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision;	2	2
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning and anti-corrosive protection.	1	2



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MODULE 12. HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS	A3	B1.3
Pylon, stabiliser and undercarriage attachments; Seat installation; Doors: construction, mechanisms, operation and safety devices; Windows and windscreen construction; Fuel storage; Firewalls; Engine mounts; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning. Airframe symmetry: methods of alignment and symmetry checks.	A4	B1.4
12.6 Air Conditioning (ATA 21) 12.6.1 Air supply	1	2
Sources of air supply including engine bleed and ground cart.	1	2
12.6.2 Air conditioning  Air conditioning systems;  Distribution systems;  Flow and temperature control systems;  Protection and warning devices.	1	3
12.7 Instruments/Avionic Systems  12.7.1 Instrument Systems (ATA 31)  Pitot static: altimeter, air speed indicator, vertical speed indicator; Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; Compasses: direct reading, remote reading; Vibration indicating systems — HUMS; Glass cockpit; Other aircraft system indication.	1	2
12.7.2 Avionic Systems  Fundamentals of system layouts and operation of: Auto Flight (ATA 22); Communications (ATA 23); Navigation Systems (ATA 34).	1	1
12.8 Electrical Power (ATA 24)  Batteries Installation and Operation; DC power generation, AC power generation; Emergency power generation; Voltage regulation, Circuit protection. Power distribution; Inverters, transformers, rectifiers; External/Ground power.	1	3
12.9 Equipment and Furnishings (ATA 25)  (a) Emergency equipment requirements;  Seats, harnesses and belts;  Lifting systems;	2	2
(b) Emergency flotation systems; Cabin lay-out, cargo retention; Equipment lay-out; Cabin Furnishing Installation.	1	1



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MODULE 12. HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS	A3 A4	B1.3 B1.4
12.10 Fire Protection (ATA 26)	1	3
Fire and smoke detection and warning systems; Fire extinguishing systems; System tests.		
12.11 Fuel Systems (ATA 28)	1	3
System lay-out; Fuel tanks; Supply systems; Dumping, venting and draining; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.		
12.12 Hydraulic Power (ATA 29)	1	3
System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical, pneumatic; Emergency pressure generation; Filters; Pressure Control; Power distribution; Indication and warning systems; Interface with other systems.		
12.13 Ice and Rain Protection (ATA 30)	1	3
Ice formation, classification and detection; Anti-icing and De-icing systems: electrical, hot air and chemical; Rain repellent and removal; Probe and drain heating; Wiper system.		
12.14 Landing Gear (ATA 32)	2	3
Construction, shock absorbing; Extension and retraction systems: normal and emergency; Indications and warning; Wheels, Tyres, brakes; Steering; Air-ground sensing; Skids, floats.		
12.15 Lights (ATA 33)	2	3
External: navigation, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.		
12.16 Pneumatic/Vacuum (ATA 36)	1	3
System lay-out; Sources: engine/APU, compressors, reservoirs, ground supply; Pressure and vacuum pumps; Pressure control; Distribution; Indications and warnings; Interfaces with other systems.		

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MODULE 12. HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS	A3	B1.3
	A4	B1.4
12.17 Integrated Modular Avionics (ATA42)	1	2
Functions that may be typically integrated in the Integrated Modular Avionic (IMA) modules are, among others:  Bleed Management, Air Pressure Control, Air Ventilation and Control, Avionics and Cockpit Ventilation Control, Temperature Control, Air Traffic Communication, Avionics Communication Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical System BITE, Fuel Management, Braking Control, Steering Control, Landing Gear Extension and Retraction, Tyre Pressure Indication, Oleo Pressure Indication, Brake Temperature Monitoring, etc.  Core System; Network Components.		
12.18 On Board Maintenance Systems (ATA45)	1	2
Central maintenance computers; Data loading system; Electronic library system; Printing; Structure monitoring (damage tolerance monitoring).		
12.19 Information Systems (ATA46)	1	2
The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. Includes units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller. Does not include units or components installed for other uses and shared with other systems, such as flight deck printer or general use display.		
Typical examples include Air Traffic and Information Management Systems and Network Server Systems.  Aircraft General Information System; Flight Deck Information System; Maintenance Information System; Passenger Cabin Information System;		
Miscellaneous Information System.		

# **MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS**

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MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS	LEVEL B2
12.1 Theomy of Flight	B2L
13.1 Theory of Flight  (a) Aeroplane Aerodynamics and Flight Controls Operation and effect of: — roll control: ailerons and spoilers; — pitch control: elevators, stabilators, variable incidence stabilisers and canards; and — yaw control: rudder limiters; Control using elevons, ruddervators; High lift devices: slots, slats, flaps; Drag inducing devices: spoilers, lift dumpers, speed brakes; and Operation and effect of trim tabs, servo tabs and control surface bias.	1
(b) High Speed Flight Speed of sound, subsonic flight, transonic flight, supersonic flight; Mach number, critical Mach number.	1
(c) Rotary Wing Aerodynamics  Terminology;  Operation and effect of cyclic, collective and anti-torque controls.	1
13.2 Structures — General Concepts Fundamentals of Structural Systems	1
Zonal and Station Identification Systems	2
Electrical bonding	2
Lightning strike protection provision.	2
13.3 Autoflight (ATA 22)	
(a) Fundamentals of automatic flight control including working principles and current terminology; Command signal processing; Modes of operation: roll, pitch and yaw channels; Yaw dampers; Stability Augmentation System in helicopters; Automatic trim control; Autopilot navigation aids interface;	3
(b) Autothrottle systems; Automatic landing systems: principles and categories, modes of operation, approach, glideslope, land, go-around, system monitors and failure conditions.	3
13.4 Communication/Navigation (ATA 23/34)	



	LEVEL
MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS	B2 B2L
(a) Fundamentals of radio wave propagation, antennas, transmission lines, communication, receiver and transmitter; Working principles of following systems:  — Very High Frequency (VHF) communication;  — High Frequency (HF) communication;  — Audio;  — Emergency Locator Transmitters (ELTs);  — Cockpit Voice Recorder (CVR);  — Very High Frequency Omnidirectional Range (VOR);  — Automatic Direction Finding (ADF);  — Instrument Landing System (ILS);  — Flight Director Systems (FDSs), Distance Measuring Equipment (DME);  — Area navigation, RNAV systems;  — Flight Management Systems (FMSs);  — Global Positioning System (GPS), Global Navigation Satellite Systems (GNSSs);  — Data Link.	3
<ul> <li>(b)</li> <li>— Air Traffic Control transponder, secondary surveillance radar;</li> <li>— Traffic Alert and Collision Avoidance System (TCAS);</li> <li>— Weather avoidance radar;</li> <li>— Radio altimeter;</li> <li>— Automatic Dependent Surveillance — Broadcast (ADS-B).</li> </ul>	3
<ul> <li>(c)</li> <li>Microwave Landing System (MLS);</li> <li>Very Low Frequency and hyperbolic navigation (VLF/Omega);</li> <li>Doppler navigation;</li> <li>Inertial Navigation System (INS);</li> <li>ARINC (Aircraft Radio Incorporated) communication and reporting.</li> </ul>	3
13.5 Electrical Power (ATA 24)  Batteries installation and operation; Direct Current (DC) power generation; Alternating Current (AC) power generation; Emergency power generation; Voltage regulation; Power distribution; Inverters, transformers, rectifiers; Circuit protection; External/Ground power.	3
13.6 Equipment and Furnishings (ATA 25)  Electronic emergency equipment requirements;  Cabin entertainment equipment.	3
13.7 Flight Controls (ATA 27) (a) Primary controls: aileron, elevator, rudder, spoiler; Trim control; Active load control; High lift devices; Lift dump, speed brakes; System operation: manual, hydraulic, pneumatic;	2



MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS	LEVEL B2 B2L
Artificial feel, Yaw damper, Mach trim, rudder limiter, gust locks; Stall protection systems.	
(b) System operation: electrical, fly-by-wire.	3
13.8 Instruments (ATA 31)	3
Classification; Atmosphere;	
Terminology;	
Pressure-measuring devices and systems;	
Pitot-static systems;	
Altimeters;	
Vertical-speed indicators;	
Airspeed indicators;	
Machmeters;	
Altitude-reporting/alerting systems; Air data computers;	
Instrument pneumatic systems;	
Direct-reading pressure and temperature gauges;	
Temperature-indicating systems;	
Fuel-quantity-indicating systems;	
Gyroscopic principles;	
Artificial horizons;	
Slip indicators;	
Directional gyros;	
Ground Proximity Warning Systems (GPWSs);	
Compass systems; Flight Data Recording Systems (FDRSs);	
Electronic Flight Instrument Systems (EFISs);	
Instrument warning systems including master warning systems and centralised warning	
panels;	
Stall warning systems and angle of attack-indicating systems;	
Vibration measurement and indication;	
Glass cockpit.	
13.9 Lights (ATA 33)	3
External: navigation, landing, taxiing, ice;	
Internal: cabin, cockpit, cargo;	
Emergency.	
13.10 On Board Maintenance Systems (ATA 45)	3
Central maintenance computers;	
Data-loading system;	
Electronic-library system;	
Printing system; Structure-monitoring (damage tolerance monitoring).	
13.11 Air Conditioning and Cabin Pressurisation (ATA 21)	
13.11.1. Air supply	2
Sources of air supply including engine bleed, APU and ground cart;	-
13.11.2. Air Conditioning	
Air-conditioning systems;	2
Air cycle and vapour cycle machines;	3
Distribution systems;	1
Distribution systems,	1



	LEVEL
MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS	B2 B2L
Flow, temperature and humidity control system.	3
13.11.3. Pressurisation	3
Pressurisation systems;	
Control and indication including control and safety valves; Cabin pressure controllers.	
13.11.4. Safety and warning devices	3
Protection and warning devices.	
13.12 Fire Protection (ATA 26)	
(a)	3
Fire and smoke detection and warning systems;	
Fire-extinguishing systems; System tests;	
(b)	1
Portable fire extinguisher.	
13.13 Fuel Systems (ATA 28)	
System layout;	1
Fuel tanks;	1
Supply systems;	1
Dumping, venting and draining; Cross feed and transfer;	2
Indications and warnings;	3
Refuelling and defuelling;	2
Longitudinal-balance fuel systems.	3
13.14 Hydraulic Power (ATA 29)	
System layout;	1
Hydraulic fluids;	1
Hydraulic reservoirs and accumulators;	1
Pressure generation: electrical, mechanical, pneumatic;	3
Emergency pressure generation;	3
Filters; Pressure control;	3
Power distribution;	1
Indication and warning systems;	3
Interface with other systems.	3
13.15 Ice and Rain Protection (ATA 30)	
Ice formation, classification and detection;	2
Anti-icing systems: electrical, hot-air and chemical;	2
De-icing systems: electrical, hot-air, pneumatic, chemical;	3
Rain-repellent;	1
Probe and drain-heating; Wiper systems.	3
13.16 Landing Gear (ATA 32)	1
Construction, shock absorbing;	1
Extension and retraction systems: normal and emergency;	3
Indications and warnings;	3



MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS	LEVEL B2 B2L
Wheels, brakes, antiskid and automatic braking systems;	3
Tyres;	1
Steering;	3
Air-ground sensing.	3
13.17 Oxygen (ATA 35)	3
System layout: cockpit, cabin;	3
Sources, storage, charging and distribution;	3
Supply regulation;	3
Indications and warnings.	3
13.18 Pneumatic/Vacuum (ATA 36) System layout;	2
Sources: engine/APU, compressors, reservoirs, ground supply;	2
Pressure control;	3
Distribution;	1
Indications and warnings;	3
Interfaces with other systems.	3
13.19 Water/Waste (ATA 38)	2
Water system layout, supply, distribution, servicing and draining; Toilet system layout, flushing and servicing.	_
13.20 Integrated Modular Avionics (ATA 42)	3
Core system; Network components. Note: Functions that may be typically integrated into the IMA modules are among others:  — bleed management;  — air pressure control;  — air ventilation and control;  — avionics and cockpit ventilation control, temperature control;  — air traffic communication;  — avionics communication router;  — electrical load management;  — circuit breaker monitoring;  — electrical system Built-In Test Equipment (BITE);  — fuel management;  — braking control;  — steering control;  — landing gear extension and retraction;  — tyre pressure indication;  — oleo pressure indication;  — brake temperature monitoring.	
The units and components which furnish a means of entertaining the passengers and providing communication within the aircraft (Cabin Intercommunication Data System (CIDS)) and between the aircraft cabin and ground stations (Cabin Network Service (CNS)). They include voice, data, music and video transmissions.  CIDS provides an interface between cockpit/cabin crew and cabin systems. These systems support data exchange between the different related Line Replaceable Units (LRUs) and they are typically operated via Flight Attendant Panels (FAPs).	3

MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS	LEVEL B2 B2L
CNS typically consists of a server, interfacing with, among others, the following systems:  — Data/Radio Communication;  — Cabin Core System (CCS);  — In-flight Entertainment System (IFES);  — External Communication System (ECS);  — Cabin Mass Memory System (CMMS);  — Cabin Monitoring System (CMS);  — Miscellaneous Cabin Systems (MCSs).  CNS may host functions such as:  — access to pre-departure/departure reports;  — e-mail/intranet/internet access;  — passenger database.	
The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. They include units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller, but they do not include units or components installed for other uses and shared with other systems, such as flight deck printer or general-use display.  Typical examples include:  — Air Traffic and Information Management systems and Network Server systems.  — Aircraft general information system;  — Flight deck information system;  — Maintenance information system;  — Passenger cabin information system;  — Miscellaneous information systems.	3

# **MODULE 14. PROPULSION**

Regulation (EU) 2018/1142

	MODULE 14. PROPULSION	LEVEL B2 B2L
14.1 Turbine		
(a)	Constructional arrangement and operation of turbojet, turbofan, turboshaft and turbopropeller engines;	1
(b)	Electronic Engine control and fuel metering systems (FADEC).	2
Exha Engir Engir pipe Oil pi Fuel Mani Engir	Indicating Systems ust gas temperature/Interstage turbine temperature systems; he speed; he Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pressure systems; ressure and temperature; pressure, temperature and flow; fold pressure; he torque; heller speed.	2
Oper Igniti	and Ignition Systems ation of engine start systems and components; on systems and components; tenance safety requirements.	2

APPENDICES TO ANNEX III (Part-66)



# **MODULE 15. GAS TURBINE ENGINE**

Regulation (EU) No 1321/2014

MODULE 15 CAS TURRINE ENGINE	LE\	/EL
MODULE 15. GAS TURBINE ENGINE	А	B1
15.1 Fundamentals  Potential energy, kinetic energy, Newton's laws of motion, Brayton cycle;  The relationship between force, work, power, energy, velocity, acceleration;  Constructional arrangement and operation of turbojet, turbofan, turboshaft, turboprop.	1	2
15.2 Engine Performance  Gross thrust, net thrust, choked nozzle thrust, thrust distribution, resultant thrust, thrust horsepower, equivalent shaft horsepower, specific fuel consumption; Engine efficiencies; By-pass ratio and engine pressure ratio; Pressure, temperature and velocity of the gas flow; Engine ratings, static thrust, influence of speed, altitude and hot climate, flat rating, limitations.	_	2
15.3 Inlet  Compressor inlet ducts  Effects of various inlet configurations; Ice protection.	2	2
Axial and centrifugal types; Constructional features and operating principles and applications; Fan balancing; Operation: Causes and effects of compressor stall and surge; Methods of air flow control: bleed valves, variable inlet guide vanes, variable stator vanes, rotating stator blades; Compressor ratio.	1	2
15.5 Combustion Section  Constructional features and principles of operation.	1	2
15.6 Turbine Section  Operation and characteristics of different turbine blade types; Blade to disk attachment; Nozzle guide vanes; Causes and effects of turbine blade stress and creep.	2	2
15.7 Exhaust  Constructional features and principles of operation; Convergent, divergent and variable area nozzles; Engine noise reduction; Thrust reversers.	1	2
15.8 Bearings and Seals  Constructional features and principles of operation.	_	2
15.9 Lubricants and Fuels  Properties and specifications; Fuel additives; Safety precautions.	1	2
15.10 Lubrication Systems System operation/lay-out and components.	1	2



MODULE 15. GAS TURBINE ENGINE	LEV	′EL
	A	B1
15.11 Fuel Systems  Operation of engine control and fuel metering systems including electronic engine control (FADEC);  Systems lay-out and components.	1	2
15.12 Air Systems	1	2
Operation of engine air distribution and anti-ice control systems, including internal cooling, sealing and external air services.		
15.13 Starting and Ignition Systems	1	2
Operation of engine start systems and components; Ignition systems and components; Maintenance safety requirements.		
15.14 Engine Indication Systems	1	2
Exhaust Gas Temperature/Interstage Turbine Temperature; Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems; Oil pressure and temperature; Fuel pressure and flow; Engine speed; Vibration measurement and indication; Torque; Power.		
15.15 Power Augmentation Systems	_	1
Operation and applications; Water injection, water methanol; Afterburner systems.		
15.16 Turbo-prop Engines	1	2
Gas coupled/free turbine and gear coupled turbines; Reduction gears; Integrated engine and propeller controls; Overspeed safety devices.		
15.17 Turbo-shaft Engines	1	2
Arrangements, drive systems, reduction gearing, couplings, control systems.		
15.18 Auxiliary Power Units (APUs)	1	2
Purpose, operation, protective systems.		
15.19 Powerplant Installation  Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti-vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.	1	2
15.20 Fire Protection Systems	1	2
Operation of detection and extinguishing systems.		
15.21 Engine Monitoring and Ground Operation	1	3
Procedures for starting and ground run-up; Interpretation of engine power output and parameters; Trend (including oil analysis, vibration and boroscope) monitoring; Inspection of engine and components to criteria, tolerances and data specified by engine manufacturer; Compressor washing/cleaning; Foreign Object Damage.		

MODULE 15. GAS TURBINE ENGINE	LEVEL	
	А	B1
15.22 Engine Storage and Preservation	_	2
Preservation and depreservation for the engine and accessories/systems.		

# **MODULE 16. PISTON ENGINE**

Regulation (EU) No 1321/2014

MODULE 16 DISTON ENGINE		LEVEL	
MODULE 16. PISTON ENGINE	А	B1	В3
16.1 Fundamentals  Mechanical, thermal and volumetric efficiencies;  Operating principles — 2 stroke, 4 stroke, Otto and Diesel;  Piston displacement and compression ratio;  Engine configuration and firing order.	1	2	2
16.2 Engine Performance  Power calculation and measurement; Factors affecting engine power; Mixtures/leaning, pre-ignition.	1	2	2
16.3 Engine Construction  Crank case, crank shaft, cam shafts, sumps; Accessory gearbox; Cylinder and piston assemblies; Connecting rods, inlet and exhaust manifolds; Valve mechanisms; Propeller reduction gearboxes.	1	2	2
16.4 Engine Fuel Systems 16.4.1 Carburettors Types, construction and principles of operation; Icing and heating.	1	2	2
16.4.2 Fuel injection systems  Types, construction and principles of operation.	1	2	2
16.4.3 Electronic engine control  Operation of engine control and fuel metering systems including electronic engine control (FADEC);  Systems lay-out and components.	1	2	2
16.5 Starting and Ignition Systems  Starting systems, pre-heat systems;  Magneto types, construction and principles of operation; Ignition harnesses, spark plugs; Low and high tension systems.	1	2	2
16.6 Induction, Exhaust and Cooling Systems  Construction and operation of: induction systems including alternate air systems;  Exhaust systems, engine cooling systems — air and liquid.	1	2	2
16.7 Supercharging/Turbocharging  Principles and purpose of supercharging and its effects on engine parameters;  Construction and operation of supercharging/turbocharging systems;  System terminology;  Control systems;  System protection.	1	2	2
16.8 Lubricants and Fuels  Properties and specifications; Fuel additives; Safety precautions.	1	2	2

MODULE 16. PISTON ENGINE		LEVEL		
MIODOLE 16. PISTON ENGINE	А	B1	В3	
16.9 Lubrication Systems	1	2	2	
System operation/lay-out and components.				
16.10 Engine Indication Systems	1	2	2	
Engine speed; Cylinder head temperature; Coolant temperature; Oil pressure and temperature; Exhaust Gas Temperature; Fuel pressure and flow; Manifold pressure.				
16.11 Powerplant Installation	1	2	2	
Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti- vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.				
16.12 Engine Monitoring and Ground Operation	1	3	2	
Procedures for starting and ground run-up; Interpretation of engine power output and parameters; Inspection of engine and components: criteria, tolerances, and data specified by engine manufacturer.				
16.13 Engine Storage and Preservation	_	2	1	
Preservation and depreservation for the engine and accessories/systems.				

# **MODULE 17A. PROPELLER**

Regulation (EU) No 1321/2014

*Note:* This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 17B.

MODULE 17A. PROPELLER	LE\	/EL
WODDLE 1/A. PROPELLER	А	B1
17.1 Fundamentals	1	2
Blade element theory; High/low blade angle, reverse angle, angle of attack, rotational speed; Propeller slip; Aerodynamic, centrifugal, and thrust forces; Torque; Relative airflow on blade angle of attack; Vibration and resonance.		
17.2 Propeller Construction	1	2
Construction methods and materials used in wooden, composite and metal propellers; Blade station, blade face, blade shank, blade back and hub assembly; Fixed pitch, controllable pitch, constant speeding propeller; Propeller/spinner installation.		
17.3 Propeller Pitch Control	1	2
Speed control and pitch change methods, mechanical and electrical/electronic; Feathering and reverse pitch; Overspeed protection.		
17.4 Propeller Synchronising	_	2
Synchronising and synchrophasing equipment.		
17.5 Propeller Ice Protection	1	2
Fluid and electrical de-icing equipment.		
17.6 Propeller Maintenance	1	3
Static and dynamic balancing; Blade tracking; Assessment of blade damage, erosion, corrosion, impact damage, delamination; Propeller treatment/repair schemes; Propeller engine running.		
17.7 Propeller Storage and Preservation	1	2
Propeller preservation and depreservation.		

# **MODULE 17B. PROPELLER**

Regulation (EU) No 1321/2014

*Note:* The scope of this Module shall reflect the propeller technology of aeroplanes pertinent to the B3 category.

MODULE 17B. PROPELLER	LEVEL B3
17.1 Fundamentals  Blade element theory;  High/low blade angle, reverse angle, angle of attack, rotational speed;  Propeller slip;  Aerodynamic, centrifugal, and thrust forces;  Torque;  Relative airflow on blade angle of attack;  Vibration and resonance.	2
17.2 Propeller Construction Construction methods and material used in wooden, composite and metal propellers; Blade station, blade face, blade shank, blade back and hub assembly; Fixed pitch, controllable pitch, constant speeding propeller; Propeller/spinner installation.	2
17.3 Propeller Pitch Control Speed control and pitch change methods, mechanical and electrical/electronic; Feathering and reverse pitch; Overspeed protection.	2
17.4 Propeller Synchronising Synchronising and synchrophasing equipment.	2
17.5 Propeller Ice Protection Fluid and electrical de-icing equipment.	2
17.6 Propeller Maintenance Static and dynamic balancing; Blade tracking; Assessment of blade damage, erosion, corrosion, impact damage, delamination; Propeller treatment/repair schemes; Propeller engine running.	2
17.7 Propeller Storage and Preservation Propeller preservation and depreservation.	2



# Appendix II — Basic examination standard (except for category L licence)

## 1. General

Regulation (EU) No 1321/2014

- 1.1. All basic examinations shall be carried out using the multi-choice question format and essay questions as specified below. The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All of the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length. In numerical questions, the incorrect answers shall correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they shall not be mere random numbers.
- 1.2. Each multi-choice question shall have three alternative answers of which only one shall be the correct answer and the candidate shall be allowed a time per module which is based upon a nominal average of 75 seconds per question.
- 1.3. Each essay question requires the preparation of a written answer and the candidate shall be allowed 20 minutes to answer each such question.
- 1.4. Suitable essay questions shall be drafted and evaluated using the knowledge syllabus in Appendix I Modules 7A, 7B, 9A, 9B and 10.
- 1.5. Each question will have a model answer drafted for it, which will also include any known alternative answers that may be relevant for other subdivisions.
- 1.6. The model answer will also be broken down into a list of the important points known as Key Points.
- 1.7. The pass mark for each module and sub-module multi-choice part of the examination is 75 %.
- 1.8. The pass mark for each essay question is 75 % in that the candidates answer shall contain 75 % of the required key points addressed by the question and no significant error related to any required key point.
- 1.9. If either the multi-choice part only or the essay part only is failed, then it is only necessary to retake the multi-choice or essay part, as appropriate.
- 1.10. Penalty marking systems shall not be used to determine whether a candidate has passed.
- 1.11. A failed module may not be retaken for at least 90 days following the date of the failed module examination, except in the case of a maintenance training organisation approved in accordance with <a href="Maintenance">Annex IV (Part-147)</a> which conducts a course of retraining tailored to the failed subjects in the particular module when the failed module may be retaken after 30 days.
- 1.12. The time periods required by point <u>66.A.25</u> apply to each individual module examination, with the exception of those module examinations which were passed as part of another category licence, where the licence has already been issued.
- 1.13. The maximum number of consecutive attempts for each module is three. Further sets of three attempts are allowed with a 1 year waiting period between sets.
  - The applicant shall confirm in writing to the approved maintenance training organisation or the competent authority to which they apply for an examination, the number and dates of attempts during the last year and the organisation or the competent authority where these attempts took place. The maintenance training organisation or the competent authority is responsible for checking the number of attempts within the applicable timeframes.



## 2. Number of questions per module

Regulation (EU) 2018/1142

## 2.1. MODULE 1 — MATHEMATICS

Category A: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

Category B1: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B2 and B2L: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.

#### 2.2. MODULE 2 — PHYSICS

Category A: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B1: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B2 and B2L: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.

#### 2.3. MODULE 3 — ELECTRICAL FUNDAMENTALS

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B2 and B2L: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B3: 24 multi-choice and 0 essay questions. Time allowed 30 minutes.

## 2.4. MODULE 4 — ELECTRONIC FUNDAMENTALS

Category B1: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2 and B2L: 40 multi-choice and 0 essay questions. Time allowed 50 minutes.

Category B3: 8 multi-choice and 0 essay questions. Time allowed 10 minutes.

## 2.5. MODULE 5 — DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT SYSTEMS

Category A: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

Category B1.1 and B1.3: 40 multi-choice and 0 essay questions. Time allowed 50 minutes.

Category B1.2 and B1.4: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2 and B2L: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B3: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

## 2.6. MODULE 6 — MATERIALS AND HARDWARE

Category A: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B1: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B2 and B2L: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

Category B3: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

## 2.7. MODULE 7A — MAINTENANCE PRACTICES

Category A: 72 multi-choice and 2 essay questions. Time allowed 90 minutes plus 40 minutes.

Category B1: 80 multi-choice and 2 essay questions. Time allowed 100 minutes plus 40 minutes.

Category B2 and B2L: 60 multi-choice and 2 essay questions. Time allowed 75 minutes plus 40 minutes.

#### MODULE 7B — MAINTENANCE PRACTICES

Category B3: 60 multi-choice and 2 essay questions. Time allowed 75 minutes plus 40 minutes.

# 2.8. MODULE 8 — BASIC AERODYNAMICS

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2 and B2L: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B3: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

#### 2.9. MODULE 9A — HUMAN FACTORS

Category A: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

Category B1: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

Category B2 and B2L: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

#### MODULE 9B — HUMAN FACTORS

Category B3: 16 multi-choice and 1 essay questions. Time allowed 20 minutes plus 20 minutes.

#### 2.10. MODULE 10 — AVIATION LEGISLATION

Category A: 32 multi-choice and 1 essay question. Time allowed 40 minutes plus 20 minutes.

Category B1: 40 multi-choice and 1 essay question. Time allowed 50 minutes plus 20 minutes.

Category B2 and B2L: 40 multi-choice and 1 essay question. Time allowed 50 minutes plus 20 minutes.

Category B3: 32 multi-choice and 1 essay questions. Time allowed 40 minutes plus 20 minutes.

#### 2.11. MODULE 11A — TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category A: 108 multi-choice and 0 essay questions. Time allowed 135 minutes.

Category B1: 140 multi-choice and 0 essay questions. Time allowed 175 minutes.

MODULE 11B — PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category A: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B1: 100 multi-choice and 0 essay questions. Time allowed 125 minutes.

MODULE 11C — PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category B3: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

## 2.12. MODULE 12 — HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS:

Category A: 100 multi-choice and 0 essay questions. Time allowed 125 minutes.

Category B1: 128 multi-choice and 0 essay questions. Time allowed 160 minutes.

#### 2.13. MODULE 13 — AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS

Category B2: 180 multiple-choice and 0 essay questions. Time allowed: 225 minutes. Questions and time allowed may be split into two examinations, as appropriate.



## Category B2L:

System rating	Number of multiple- choice questions	Time allowed (minutes)
Basic requirements (Submodules 13.1, 13.2, 13.5 and 13.9)	28	35
COM/NAV (Submodule 13.4(a))	24	30
INSTRUMENTS (Submodule 13.8)	20	25
AUTOFLIGHT (Submodules 13.3(a) and 13.7)	28	35
SURVEILLANCE (Submodule 13.4(b))	8	10
AIRFRAME SYSTEMS (Submodules 13.11 to 13.18)	32	40

#### 2.14. MODULE 14 — PROPULSION

Category B2 and B2L: 24 multiple-choice and 0 essay questions. Time allowed 30 minutes.

NOTE: The B2L examination for module 14 is only applicable to the 'Instruments' and 'Airframe Systems' ratings.

## 2.15. MODULE 15 — GAS TURBINE ENGINE

Category A: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

Category B1: 92 multi-choice and 0 essay questions. Time allowed 115 minutes.

#### 2.16. MODULE 16 — PISTON ENGINE

Category A: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B1: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B3: 68 multi-choice and 0 essay questions. Time allowed 85 minutes.

# 2.17. MODULE 17A — PROPELLER

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

MODULE 17B — PROPELLER

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.



# Appendix III — Aircraft type training and examination standard — On the job training

#### 1. General

Regulation (EU) 2018/1142

Aircraft type training shall consist of theoretical training and examination, and, except for the category C ratings, practical training and assessment.

- (a) Theoretical training and examination shall comply with the following requirements:
  - (i) Shall be conducted by a maintenance training organisation appropriately approved in accordance with <u>Annex IV (Part-147)</u> or, when conducted by other organisations, as directly approved by the competent authority.
  - (ii) Shall comply, except as permitted by the differences training provided for in point (c), with the standard set out in <u>point 3.1 of this Appendix</u> and, if available, the relevant elements defined in the mandatory part of the operational suitability data established in accordance with Regulation (EU) No 748/2012.
  - (iii) In the case of a category C person qualified by holding an academic degree as specified in point 66.A.30(a)(5), the first relevant aircraft type theoretical training shall be at the category B1 or B2 level.
  - (iv) Shall have been started and completed within the 3 years preceding the application for a type rating endorsement.
- (b) Practical training and assessment shall comply with the following requirements:
  - (i) Shall be conducted by a maintenance training organisation appropriately approved in accordance with <u>Annex IV (Part-147)</u> or, when conducted by other organisations, as directly approved by the competent authority.
  - (ii) Shall comply, except as permitted by the differences training described in point (c), with the standard set out in <u>point 3.2 of this Appendix</u> and, if available, the relevant elements defined in the mandatory part of the operational suitability data established in accordance with Regulation (EU) No 748/2012.
  - (iii) Shall include a representative cross section of maintenance activities relevant to the aircraft type.
  - (iv) Shall include demonstrations using equipment, components, simulators, other training devices or aircraft.
  - (v) Shall have been started and completed within the 3 years preceding the application for a type rating endorsement.
- (c) Differences training
  - (i) Differences training is the training required in order to cover the differences between two different aircraft type ratings of the same manufacturer as determined by the Agency.
  - (ii) Differences training has to be defined on a case-to-case basis taking into account the requirements contained in this Appendix III in respect of both theoretical and practical elements of type rating training.
  - (iii) A type rating shall only be endorsed on a licence after differences training when the applicant also complies with one of the following conditions:

- having already endorsed on the licence the aircraft type rating from which the differences are being identified, or
- having completed the type training requirements for the aircraft from which the differences are being identified.

# 2. Aircraft type training levels

Regulation (EU) No 1321/2014

The three levels listed below define the objectives, the depth of training and the level of knowledge that the training is intended to achieve.

Level 1: A brief overview of the airframe, systems and powerplant as outlined in the Systems
 Description Section of the Aircraft Maintenance Manual/Instructions for Continued
 Airworthiness.

Course objectives: Upon completion of Level 1 training, the student will be able to:

- (a) provide a simple description of the whole subject, using common words and examples, using typical terms and identify safety precautions related to the airframe, its systems and powerplant;
- (b) identify aircraft manuals, maintenance practices important to the airframe, its systems and powerplant;
- (c) define the general layout of the aircraft's major systems;
- (d) define the general layout and characteristics of the powerplant;
- (e) identify special tooling and test equipment used with the aircraft.
- Level 2: Basic system overview of controls, indicators, principal components, including their location and purpose, servicing and minor troubleshooting. General knowledge of the theoretical and practical aspects of the subject.

Course objectives: In addition to the information contained in the Level 1 training, at the completion of Level 2 training, the student will be able to:

- (a) understand the theoretical fundamentals; apply knowledge in a practical manner using detailed procedures;
- (b) recall the safety precautions to be observed when working on or near the aircraft, powerplant and systems;
- (c) describe systems and aircraft handling particularly access, power availability and sources;
- (d) identify the locations of the principal components;
- (e) explain the normal functioning of each major system, including terminology and nomenclature;
- (f) perform the procedures for servicing associated with the aircraft for the following systems: Fuel, Power Plants, Hydraulics, Landing Gear, Water/Waste, and Oxygen;
- (g) demonstrate proficiency in use of crew reports and on-board reporting systems (minor troubleshooting) and determine aircraft airworthiness per the MEL/CDL;
- (h) demonstrate the use, interpretation and application of appropriate documentation including instructions for continued airworthiness, maintenance manual, illustrated parts catalogue, etc.

 Level 3: Detailed description, operation, component location, removal/installation and bite and troubleshooting procedures to maintenance manual level.

Course objectives: In addition to the information contained in Level 1 and Level 2 training, at the completion of Level 3 training, the student will be able to:

- (a) demonstrate a theoretical knowledge of aircraft systems and structures and interrelationships with other systems, provide a detailed description of the subject using theoretical fundamentals and specific examples and to interpret results from various sources and measurements and apply corrective action where appropriate;
- (b) perform system, powerplant, component and functional checks as specified in the aircraft maintenance manual;
- (c) demonstrate the use, interpret and apply appropriate documentation including structural repair manual, troubleshooting manual, etc.;
- (d) correlate information for the purpose of making decisions in respect of fault diagnosis and rectification to maintenance manual level;
- (e) describe procedures for replacement of components unique to aircraft type.

## 3. Aircraft type training standard

Regulation (EU) No 1321/2014

Although aircraft type training includes both theoretical and practical elements, courses can be approved for the theoretical element, the practical element or for a combination of both.

#### 3.1. Theoretical element

Regulation (EU) 2018/1142

# (a) Objective:

On completion of a theoretical training course the student shall be able to demonstrate, to the levels identified in the Appendix III syllabus, the detailed theoretical knowledge of the aircraft's applicable systems, structure, operations, maintenance, repair, and troubleshooting according to approved maintenance data. The student shall be able to demonstrate the use of manuals and approved procedures, including the knowledge of relevant inspections and limitations.

## (b) Level of training:

Training levels are those levels defined in point 2 above.

After the first type course for category C certifying staff all subsequent courses need only be to level 1.

During a level 3 theoretical training, level 1 and 2 training material may be used to teach the full scope of the chapter if required. However, during the training the majority of the course material and training time shall be at the higher level.



## (c) Duration:

The theoretical training minimum tuition hours are contained in the following table:

Category	Hours
Aeroplanes with a maximum take-off mass above 30000 kg:	
B1.1	150
B1.2	120
B2	100
C	30
Aeroplanes with a maximum take-off mass equal or less than 30000 kg and ab	ove 5700 kg:
B1.1	120
B1.2	100
B2	100
C	25
Aeroplanes with a maximum take-off mass of 5700 kg and below	l
B1.1	80
B1.2	60
B2	60
C	15
Helicopters <sup>2</sup>	
B1.3	120
B1.4	100
B2	100
C	25

For the purpose of the table above, a tuition hour means 60 minutes of teaching and exclude any breaks, examination, revision, preparation and aircraft visit.

These hours apply only to theoretical courses for complete aircraft/engine combinations according to the type rating as defined by the Agency.

## (d) Justification of course duration:

Training courses carried out in a maintenance training organisation approved in accordance with <u>Annex IV (Part-147)</u> and courses directly approved by the competent authority shall justify their hour duration and the coverage of the full syllabus by a training needs analysis based on:

- the design of the aircraft type, its maintenance needs and the types of operation,
- detailed analysis of applicable chapters see contents table in point 3.1(e) below,
- detailed competency analysis showing that the objectives as stated in point 3.1(a) above are fully met.

Where the training needs analysis shows that more hours are needed, course lengths shall be longer than the minimum specified in the table.

Similarly, tuition hours of differences courses or other training course combinations (such as combined B1/B2 courses), and in cases of theoretical type training courses below the figures

<sup>&</sup>lt;sup>1</sup> For non-pressurised piston engine aeroplanes below 2 000 kg MTOM, the minimum duration can be reduced by 50 %.

<sup>&</sup>lt;sup>2</sup> For helicopters in Group 2 (as defined in point <u>66.A.5</u>), the minimum duration can be reduced by 30 %.

given in point 3.1(c) above, these shall be justified to the competent authority by the training needs analysis as described above.

In addition, the course must describe and justify the following:

- The minimum attendance required to the trainee, in order to meet the objectives of the course.
- The maximum number of hours of training per day, taking into account pedagogical and human factors principles.

If the minimum attendance required is not met, the certificate of recognition shall not be issued. Additional training may be provided by the training organisation in order to meet the minimum attendance time.

## (e) Content:

As a minimum, the elements in the Syllabus below that are specific to the aircraft type shall be covered. Additional elements introduced due to type variations, technological changes, etc. shall also be included.

The training syllabus shall be focused on mechanical and electrical aspects for B1 personnel, and electrical and avionic aspects for B2.

Level Chapters	Aerop turl	olanes oine		Aeroplanes piston		Helicopters turbine		opters ton	Avionics
Licence category	B1	С	B1	С	B1	С	B1	С	B2
Introduction module:									
05 Time limits/maintenance checks	1	1	1	1	1	1	1	1	1
06 Dimensions/Areas (MTOM, etc.)	1	1	1	1	1	1	1	1	1
07 Lifting and Shoring	1	1	1	1	1	1	1	1	1
08 Levelling and weighing	1	1	1	1	1	1	1	1	1
09 Towing and taxiing	1	1	1	1	1	1	1	1	1
10 Parking/mooring, Storing and Return to Service	1	1	1	1	1	1	1	1	1
11 Placards and Markings	1	1	1	1	1	1	1	1	1
12 Servicing	1	1	1	1	1	1	1	1	1
20 Standard practices — only type particular	1	1	1	1	1	1	1	1	1
Helicopters									
18 Vibration and Noise Analysis (Blade tracking)	_	_	_	_	3	1	3	1	_
60 Standard Practices Rotor	_	_	_	_	3	1	3	1	_
62 Rotors	_	_	_	_	3	1	3	1	1
62A Rotors — Monitoring and indicating	_	_	_	_	3	1	3	1	3
63 Rotor Drives	_	_	_	_	3	1	3	1	1
63A Rotor Drives — Monitoring and indicating	_	_	_	_	3	1	3	1	3
64 Tail Rotor	_	_	_	_	3	1	3	1	1



Level Chapters	Aerop turl	olanes oine		olanes ton	Helico turk	opters oine		opters ton	Avionics
Licence category	B1	С	B1	С	B1	С	B1	С	B2
64A Tail rotor — Monitoring and indicating	_	_	_	_	3	1	3	1	3
65 Tail Rotor Drive	_	_	_	_	3	1	3	1	1
65A Tail Rotor Drive — Monitoring and indicating	_	_	_	_	3	1	3	1	3
66 Folding Blades/Pylon	_	_	_	_	3	1	3	1	_
67 Rotors Flight Control	_	_	_	_	3	1	3	1	_
53 Airframe Structure (Helicopter)	_	-	_	_	3	1	3	1	_
25 Emergency Flotation Equipment	_	_	_	_	3	1	3	1	1
Airframe structures									
51 Standard practices and structures (damage classification, assessment and repair)	3	1	3	1	-	-	-	-	1
53 Fuselage	3	1	3	1	_	_	_	_	1
54 Nacelles/Pylons	3	1	3	1	_	_	_	_	1
55 Stabilisers	3	1	3	1	_	_	_	_	1
56 Windows	3	1	3	1	_	_	_	_	1
57 Wings	3	1	3	1	_	_	_	_	1
27A Flight Control Surfaces (All)	3	1	3	1	_	_	_	_	1
52 Doors	3	1	3	1	_	_	_	_	1
Zonal and Station Identification Systems.	1	1	1	1	1	1	1	1	1
Airframe systems:									
21 Air Conditioning	3	1	3	1	3	1	3	1	3
21A Air Supply	3	1	3	1	3	1	3	1	2
21B Pressurisation	3	1	3	1	3	1	3	1	3
21C Safety and Warning Devices	3	1	3	1	3	1	3	1	3
22 Autoflight	2	1	2	1	2	1	2	1	3
23 Communications	2	1	2	1	2	1	2	1	3
24 Electrical Power	3	1	3	1	3	1	3	1	3
25 Equipment and Furnishings	3	1	3	1	3	1	3	1	1
25A Electronic Equipment including emergency equipment	1	1	1	1	1	1	1	1	3
26 Fire Protection	3	1	3	1	3	1	3	1	3
27 Flight Controls	3	1	3	1	3	1	3	1	2
27A Sys. Operation: Electrical/Fly-by-Wire	3	1	_	_	_	_	_	_	3
28 Fuel Systems	3	1	3	1	3	1	3	1	2



Level Chapters	Aerop turk		-	olanes ton	Helico turk	pters pine	Helico pist	pters ton	Avionics
Licence category	B1	С	B1	С	B1	С	B1	С	B2
28A Fuel Systems — Monitoring and indicating	3	1	3	1	3	1	3	1	3
29 Hydraulic Power	3	1	3	1	3	1	3	1	2
29A Hydraulic Power — Monitoring and indicating	3	1	3	1	3	1	3	1	3
30 Ice and Rain Protection	3	1	3	1	3	1	3	1	3
31 Indicating/Recording Systems	3	1	3	1	3	1	3	1	3
31A Instrument Systems	3	1	3	1	3	1	3	1	3
32 Landing Gear	3	1	3	1	3	1	3	1	2
32A Landing Gear — Monitoring and indicating	3	1	3	1	3	1	3	1	3
33 Lights	3	1	3	1	3	1	3	1	3
34 Navigation	2	1	2	1	2	1	2	1	3
35 Oxygen	3	1	3	1	_	_	_	_	2
36 Pneumatic	3	1	3	1	3	1	3	1	2
36A Pneumatic — Monitoring and indicating	3	1	3	1	3	1	3	1	3
37 Vacuum	3	1	3	1	3	1	3	1	2
38 Water/Waste	3	1	3	1	_	_	_	_	2
41 Water Ballast	3	1	3	1	_	_	_	_	1
42 Integrated modular avionics	2	1	2	1	2	1	2	1	3
44 Cabin Systems	2	1	2	1	2	1	2	1	3
45 On-Board Maintenance System (or covered in 31)	3	1	3	1	3	1	_	_	3
46 Information Systems	2	1	2	1	2	1	2	1	3
50 Cargo and Accessory Compartments	3	1	3	1	3	1	3	1	1
Turbine Engine									
70 Standard Practices — Engines,	3	1	_	_	3	1	_	_	1
70A constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems).	3	1	_	_	3	1	-	_	1
70B Engine Performance	3	1	_	_	3	1	_	_	1
71 Powerplant	3	1	_	_	3	1	_	-	1
72 Engine Turbine/Turbo Prop/Ducted Fan/Unducted fan	3	1	_	_	3	1	_	_	1
73 Engine Fuel and Control	3	1	_	_	3	1	_	_	1



Level Chapters	Aerop turk	lanes oine		olanes ton	Helico turk	pters pine	Helico pist	pters ton	Avionics
Licence category	B1	С	B1	С	B1	С	B1	С	B2
75 Air	3	1	_	_	3	1	_	_	1
76 Engine controls	3	1	_	_	3	1	_	_	1
78 Exhaust	3	1	_	_	3	1	_	_	1
79 Oil	3	1	_	_	3	1	_	_	1
80 Starting	3	1	_	_	3	1	_	_	1
82 Water Injections	3	1	_	_	3	1	_	_	1
83 Accessory Gear Boxes	3	1	_	_	3	1	_	_	1
84 Propulsion Augmentation	3	1	_	_	3	1	_	_	1
73A FADEC	3	1	_	_	3	1	_	_	3
74 Ignition	3	1	_	_	3	1	_	_	3
77 Engine Indicating Systems	3	1	_	_	3	1	_	_	3
49 Auxiliary Power Units (APUs)	3	1	_	_	_	_	_	_	2
Piston Engine									
70 Standard Practices — Engines	_	_	3	1	_	_	3	1	1
70A Constructional arrangement and operation (Installation, Carburettors, Fuel injection systems, Induction, Exhaust and Cooling Systems, Supercharging/Turbochargin, Lubrication Systems).	_	_	3	1	_	_	3	1	1
70B Engine Performance	_	_	3	1	_	_	3	1	1
71 Powerplant	_	_	3	1	_	_	3	1	1
73 Engine Fuel and Control	_	_	3	1	_	_	3	1	1
76 Engine Control	_	_	3	1	_	_	3	1	1
79 Oil	_	_	3	1	_	_	3	1	1
80 Starting	_	_	3	1	_	_	3	1	1
81 Turbines	_	_	3	1	_	_	3	1	1
82 Water Injections	_	_	3	1	_	_	3	1	1
83 Accessory Gear Boxes	_	_	3	1	_	_	3	1	1
84 Propulsion Augmentation	_	_	3	1	_	_	3	1	1
73A FADEC	_	_	3	1	_	_	3	1	3
74 Ignition	_	_	3	1	_	_	3	1	3
77 Engine Indication Systems	_	_	3	1	_	_	3	1	3
Propellers									
60A Standard Practices — Propeller	3	1	3	1	_	_	_	_	1
61 Propellers/Propulsion	3	1	3	1	_	_	_	_	1
61A Propeller Construction	3	1	3	1	_	_	_	_	_
61B Propeller Pitch Control	3	1	3	1	_	_	_	_	_



Level Chapters	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helico pis	Avionics	
Licence category	B1	С	B1	С	B1	С	B1	С	B2
61C Propeller Synchronising	3	1	3	1	_	_	_	_	1
61D Propeller Electronic control	2	1	2	1	-	-	-	_	3
61E Propeller Ice Protection	3	1	3	1	_	_	_	_	_
61F Propeller Maintenance	3	1	3	1	_	_	_	_	1

(f) Multimedia Based Training (MBT) methods may be used to satisfy the theoretical training element either in the classroom or in a virtual controlled environment subject to the acceptance of the competent authority approving the training course.

## 3.2. Practical element

Regulation (EU) No 1321/2014

## (a) Objective:

The objective of practical training is to gain the required competence in performing safe maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks as appropriate for the type of aircraft, for example troubleshooting, repairs, adjustments, replacements, rigging and functional checks. It includes the awareness of the use of all technical literature and documentation for the aircraft, the use of specialist/special tooling and test equipment for performing removal and replacement of components and modules unique to type, including any on-wing maintenance activity.

## (b) Content:

At least 50 % of the crossed items in the table below, which are relevant to the particular aircraft type, shall be completed as part of the practical training.

Tasks crossed represent subjects that are important for practical training purposes to ensure that the operation, function, installation and safety significance of key maintenance tasks is adequately addressed; particularly where these cannot be fully explained by theoretical training alone. Although the list details the minimum practical training subjects, other items may be added where applicable to the particular aircraft type.

Tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

Glossary of the table: LOC: Location; FOT: Functional/Operational Test; SGH: Service and Ground Handling; R/I: Removal/Installation; MEL: Minimum Equipment List; TS: TroubleShooting.

Chapters	B1/B2			B1					B2		
	LOC	FOT	SGH	R/I	MEL	TS	FOT	SGH	R/I	MEL	TS
Introduction module:											
5 Time limits/maintenance checks	X/X	_	_	_	_	_	_	_	_	_	_



Chapters	B1/B2			B1					В2		
	LOC	FOT	SGH	R/I	MEL	TS	FOT	SGH	R/I	MEL	TS
6 Dimensions/Areas (MTOM, etc.)	X/X	_	_	_	_	-	-	_	_	_	_
7 Lifting and Shoring	X/X	_	_	_	_	_	_	_	_	_	_
8 Levelling and weighing	X/X	_	X	_	_	_	_	X	_	_	_
9 Towing and taxiing	X/X	_	Χ	_	_	_	_	Χ	_	_	_
10 Parking/mooring, Storing and Return to Service	X/X	_	X	_	_	_	_	X	_	_	-
11 Placards and Markings	X/X	_	_	_	_	_	_	_	_	_	_
12 Servicing	X/X	_	Χ	_	_	_	_	Χ	_	_	_
20 Standard practices — only type particular	X/X	_	X	_	_	_	_	X	_	_	_
Helicopters:											
18 Vibration and Noise Analysis (Blade tracking)	X/—	_	_	_	_	X	_	_	_	_	_
60 Standard Practices Rotor — only type specific	X/X	_	X	_	_	_	_	X	_	_	_
62 Rotors	X/—	_	Χ	Χ	_	Χ	_	_	_	_	_
62A Rotors — Monitoring and indicating	X/X	X	X	X	X	Х	_	_	Х	_	X
63 Rotor Drives	X/—	Χ	_	_	_	Χ	_	_	_	_	_
63A Rotor Drives — Monitoring and indicating	X/X	Х	_	X	X	X	_	_	X	_	X
64 Tail Rotor	X/—	_	Χ	_	_	Χ	_	_	_	_	_
64A Tail rotor - Monitoring and indicating	X/X	Х	_	Х	X	Х	_	_	Х	_	Х
65 Tail Rotor Drive	X/—	Χ	_	_	_	Χ	_	_	_	_	_
65A Tail Rotor Drive — Monitoring and indicating	X/X	X	_	Х	Х	Х	_	_	Х	_	Х
66 Folding Blades/Pylon	X/—	X	X	_	_	Х	_	_	_	_	_
67 Rotors Flight Control	X/—	X	X	_	X	X	_	_	_	_	_
53 Airframe Structure (Helicopter) Note: covered under Airframe structures											



Chapters	B1/B2			B1					В2		
	LOC	FOT	SGH	R/I	MEL	TS	FOT	SGH	R/I	MEL	TS
25 Emergency Flotation Equipment	X/X	Х	Х	Х	Х	Х	X	X	_	_	_
Airframe structures:											
51 Standard Practices and Structures (damage classification, assessment and repair)											
53 Fuselage	X/—	_	_	_	_	Χ	_	_	_	_	_
54 Nacelles/Pylons	X/—	_	_	_	_	_	_	_	_	_	_
55 Stabilisers	X/—	_	_	_	_	_	_	_	_	_	_
56 Windows	X/—	_	_	_	_	Χ	_	_	_	_	_
57 Wings	X/—	_	_	_	_	_	_	_	_	_	_
27A Flight Control Surfaces	X/—	_	_	_	-	Х	_	-	_	_	_
52 Doors	X/X	Χ	Χ	_	_	_	_	Χ	_	_	_
Airframe systems:											
21 Air Conditioning	X/X	Χ	Χ	_	Х	Χ	Χ	Χ	_	Х	Χ
21A Air Supply	X/X	Χ	_	_	_	_	Χ	_	_	_	_
21B Pressurisation	X/X	Χ	_	_	Х	Χ	Χ	_	_	Х	Χ
21C Safety and warning Devices	X/X	_	X	_	-	_	_	Х	_	_	_
22 Autoflight	X/X	_	_	_	Χ	_	Χ	Χ	Χ	X	Χ
23 Communications	X/X	_	Χ	_	X	_	Χ	Χ	Χ	Χ	Χ
24 Electrical Power	X/X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
25 Equipment and Furnishings	X/X	Х	Х	Х	_	_	X	X	X	_	_
25A Electronic Equipment including emergency equipment	X/X	X	X	X	_	_	X	X	X	_	_
26 Fire Protection	X/X	Χ	Χ	Χ	X	Χ	Χ	Χ	Χ	X	Χ
27 Flight Controls	X/X	Χ	Χ	Χ	Χ	Χ	Χ	_	_	_	_
27A Sys. Operation: Electrical/Fly-by-Wire	X/X	X	X	X	X	_	X	_	X	_	X
28 Fuel Systems	X/X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	_	Χ	_
28A Fuel Systems — Monitoring and indicating	X/X	X	_	_	_	_	X	_	X	_	X
29 Hydraulic Power	X/X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	_	Χ	_
29A Hydraulic Power — Monitoring and indicating	X/X	Х	_	Х	X	X	X	_	X	X	X



Chapters	B1/B2			B1					В2		
	LOC	FOT	SGH	R/I	MEL	TS	FOT	SGH	R/I	MEL	TS
30 Ice and Rain Protection	X/X	Х	X	_	X	X	X	X	_	X	X
31 Indicating/Recording Systems	X/X	Х	Х	X	X	Х	X	Х	X	X	Х
31A Instrument Systems	X/X	X	X	X	X	Х	X	X	X	X	X
32 Landing Gear	X/X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	_
32A Landing Gear — Monitoring and indicating	X/X	X	_	X	X	X	X	_	X	X	X
33 Lights	X/X	Χ	Χ	_	Χ	_	Χ	Χ	Χ	Χ	_
34 Navigation	X/X	_	Χ	_	Χ	_	Χ	Χ	Χ	Χ	Χ
35 Oxygen	X/—	Χ	Χ	Χ	_	_	Χ	Χ	_	_	_
36 Pneumatic	X/—	Χ	_	Χ	Χ	Χ	Χ	_	Χ	Χ	Χ
36A Pneumatic — Monitoring and indicating	X/X	X	X	X	X	X	X	X	X	X	X
37 Vacuum	X/—	Χ	_	Χ	Χ	Χ	_	_	_	_	_
38 Water/Waste	X/—	Χ	Χ	_	_	_	Χ	Χ	_	_	_
41 Water Ballast	X/—	_	_	_	_	_	_	_	_	_	_
42 Integrated modular avionics	X/X	_	_	_	_	_	X	Х	Х	X	X
44 Cabin Systems	X/X	_	_	_	_	_	Χ	Χ	Χ	X	Χ
45 On-Board Maintenance System (or covered in 31)	X/X	X	X	X	X	X	X	X	X	X	X
46 Information Systems	X/X	_	_	_	_	_	X	_	X	X	X
50 Cargo and Accessory Compartments	X/X	_	X	_	_	_	_	_	_	_	_
Turbine/Piston Engine Module:											
70 Standard Practices — Engines — only type particular	_	_	X	_	_	_	_	X	_	_	_
70A Constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems)	X/X	_	_	_	_	_	_	_	_	_	_



Chapters	B1/B2			B1					B2		
	LOC	FOT	SGH	R/I	MEL	TS	FOT	SGH	R/I	MEL	TS
Turbine engines:											
70B Engine Performance	_	_	_	_	_	Х	_	_	-	_	_
71 Power Plant	X/—	Χ	Χ	_	_	_	_	Χ	_	_	_
72 Engine Turbine/Turbo Prop/Ducted Fan/ Unducted fan	X/—	_	_	_	_	_	_	_	_	_	_
73 Engine Fuel and Control	X/X	X	_	_	_	_	_	_	-	_	_
73A FADEC Systems	X/X	Χ	_	Χ	Χ	Χ	Χ	_	Χ	Χ	Χ
74 Ignition	X/X	Χ	_	_	_	_	Χ	_	_	_	_
75 Air	X/—	_	_	Χ	_	Χ	_	_	_	_	_
76 Engine Controls	X/—	Χ	_	_	_	Χ	_	_	_	_	_
77 Engine Indicating	X/X	Χ	_	_	X	Χ	X	_	_	Χ	Χ
78 Exhaust	X/—	Χ	_	_	Χ	_	_	_	_	_	_
79 Oil	X/—	_	Χ	Χ	_	_	_	_	_	_	_
80 Starting	X/—	Χ	_	_	Χ	Χ	_	_	_	_	_
82 Water Injection	X/—	Χ	_	_	_	_	_	_	_	_	_
83 Accessory Gearboxes	X/—	_	X	_	_	_	_	_	_	_	_
84 Propulsion Augmentation	X/—	Х	_	_	_	_	_	_	_	_	_
Auxiliary Power Units (APUs):											
49 Auxiliary Power Units (APUs)	X/—	X	X	_	_	X	_	_	_	_	_
Piston Engines:											
70 Standard Practices — Engines — only type particular	_	_	X	_	_	_	_	Х	_	_	_
70A Constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems)	X/X	_	_	_	_	_	_	_	_	_	-
70B Engine Performance	_	_	_	_	_	X	_	_	_	_	_
71 Power Plant	X/—	Χ	Χ	_	_	_	_	Χ	_	_	_
73 Engine Fuel and Control	X/X	X	_	_	_	_	_	_	_	_	_



Chapters	B1/B2	32 B1						В2					
	LOC	FOT	SGH	R/I	MEL	TS	FOT	SGH	R/I	MEL	TS		
73A FADEC Systems	X/X	Χ	_	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ		
74 Ignition	X/X	Χ	_	_	_	_	Χ	_	_	_	_		
76 Engine Controls	X/—	Χ	_	_	_	Χ	_	_	_	_	_		
77 Engine Indicating	X/X	Χ	_	_	Χ	Χ	Χ	_	_	Χ	Χ		
78 Exhaust	X/—	Χ	_	_	Χ	Χ	_	_	_	_	_		
79 Oil	X/—	_	Χ	Χ	_	_	_	_	_	_	_		
80 Starting	X/—	Χ	_	_	Χ	Χ	_	_	_	_	_		
81 Turbines	X/—	Χ	Χ	Χ	_	Χ	_	_	_	_	_		
82 Water Injection	X/—	Χ	_	_	_	_	_	_	_	_	_		
83 Accessory Gearboxes	X/—	_	X	X	_	_	_	_	_	_	_		
84 Propulsion Augmentation	X/—	X	_	_	_	_	_	_	_	_	_		
Propellers:													
60A Standard Practices — Propeller	_	_	_	Х	_	_	_	_	_	_	_		
61 Propellers/ Propulsion	X/X	X	X	_	X	Х	_	_	_	_	_		
61A Propeller Construction	X/X	_	X	_	_	-	_	_	_	_	_		
61B Propeller Pitch Control	X/—	X	_	Х	X	Х	_	_	_	_	_		
61C Propeller Synchronising	X/—	X	_	_	_	Х	_	_	_	X	_		
61D Propeller Electronic control	X/X	X	X	Х	X	Х	X	X	Х	X	X		
61E Propeller Ice Protection	X/—	X	_	Х	X	Х	_	_	_	_	_		
61F Propeller Maintenance	X/X	X	X	Х	X	Х	X	X	Х	X	X		

## 4. Type training examination and assessment standard

# 4.1. Theoretical element examination standard

Regulation (EU) No 1321/2014

After the theoretical portion of the aircraft type training has been completed, a written examination shall be performed, which shall comply with the following:

- (a) Format of the examination is of the multi-choice type. Each multi-choice question shall have 3 alternative answers of which only one shall be the correct answer. The total time is based on the total number of questions and the time for answering is based upon a nominal average of 90 seconds per question.
- (b) The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length.

- (c) In numerical questions, the incorrect answers shall correspond to procedural errors such as the use of incorrect sense (+ versus -) or incorrect measurement units. They shall not be mere random numbers.
- (d) The level of examination for each chapter<sup>1</sup> shall be the one defined in point 2 'Aircraft type training levels'. However, the use of a limited number of questions at a lower level is acceptable.
- (e) The examination shall be of the closed book type. No reference material is permitted. An exception will be made for the case of examining a B1 or B2 candidate's ability to interpret technical documents.
- (f) The number of questions shall be at least 1 question per hour of instruction. The number of questions for each chapter and level shall be proportionate to:
  - the effective training hours spent teaching at that chapter and level,
  - the learning objectives as given by the training needs analysis.

The competent authority of the Member State will assess the number and the level of the questions when approving the course.

- (g) The minimum examination pass mark is 75 %. When the type training examination is split in several examinations, each examination shall be passed with at least a 75 % mark. In order to be possible to achieve exactly a 75 % pass mark, the number of questions in the examination shall be a multiple of 4.
- (h) Penalty marking (negative points for failed questions) is not to be used.
- (i) End of module phase examinations cannot be used as part of the final examination unless they contain the correct number and level of questions required.

## 4.2. Practical element assessment standard

Regulation (EU) No 1321/2014

After the practical element of the aircraft type training has been completed, an assessment must be performed, which must comply with the following:

- (a) The assessment shall be performed by designated assessors appropriately qualified.
- (b) The assessment shall evaluate the knowledge and skills of the trainee.

#### 5. Type examination standard (Appendix III to Part-66)

Regulation (EU) No 1321/2014

Type examination shall be conducted by training organisations appropriately approved under <u>Part-147</u> or by the competent authority.

The examination shall be oral, written or practical assessment based, or a combination thereof and it shall comply with the following requirements:

- (a) Oral examination questions shall be open.
- (b) Written examination questions shall be essay type or multi-choice questions.
- (c) Practical assessment shall determine a person's competence to perform a task.

<sup>&</sup>lt;sup>1</sup> For the purpose of this point 4, a 'chapter' means each one of the rows preceded by a number in the table contained in point 3.1(e).

- (d) Examinations shall be on a sample of chapters<sup>1</sup> drawn from point 3 type training/examination syllabus, at the indicated level.
- (e) The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All of the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length.
- (f) In numerical questions, the incorrect answers shall correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they shall not be mere random numbers.
- (g) The examination shall ensure that the following objectives are met:
  - 1. Properly discuss with confidence the aircraft and its systems.
  - 2. Ensure safe performance of maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks as appropriate for the type of aircraft, for example troubleshooting, repairs, adjustments, replacements, rigging and functional checks such as engine run, etc., if required.
  - 3. Correctly use all technical literature and documentation for the aircraft.
  - 4. Correctly use specialist/special tooling and test equipment, perform removal and replacement of components and modules unique to type, including any on-wing maintenance activity
- (h) The following conditions apply to the examination:
  - 1. The maximum number of consecutive attempts is three. Further sets of three attempts are allowed with a 1 year waiting period between sets. A waiting period of 30 days is required after the first failed attempt within one set, and a waiting period of 60 days is required after the second failed attempt.
    - The applicant shall confirm in writing to the maintenance training organisation or the competent authority to which they apply for an examination, the number and dates of attempts during the last year and the maintenance training organisation or the competent authority where these attempts took place. The maintenance training organisation or the competent authority is responsible for checking the number of attempts within the applicable timeframes.
  - 2. The type examination shall be passed and the required practical experience shall be completed within the 3 years preceding the application for the rating endorsement on the aircraft maintenance licence.
  - 3. Type examination shall be performed with at least one examiner present. The examiner(s) shall not have been involved in the applicant's training.
- (i) A written and signed report shall be made by the examiner(s) to explain why the candidate has passed or failed.

For the purpose of this point 5, a 'chapter' means each one of the rows preceded by a number in the tables contained in points 3.1(e) and 3.2(b).

## 6. On the Job Training

Regulation (EU) No 1321/2014

On the Job Training (OJT) shall be approved by the competent authority who has issued the licence.

It shall be conducted at and under the control of a maintenance organisation appropriately approved for the maintenance of the particular aircraft type and shall be assessed by designated assessors appropriately qualified.

It shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

## (a) Objective:

The objective of OJT is to gain the required competence and experience in performing safe maintenance.

## (b) Content:

OJT shall cover a cross section of tasks acceptable to the competent authority. The OJT tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex maintenance tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

Each task shall be signed off by the student and countersigned by a designated supervisor. The tasks listed shall refer to an actual job card/work sheet, etc.

The final assessment of the completed OJT is mandatory and shall be performed by a designated assessor appropriately qualified.

The following data shall be addressed on the OJT worksheets/logbook:

- 1. Name of Trainee;
- 2. Date of Birth;
- 3. Approved Maintenance Organisation;
- 4. Location;
- 5. Name of supervisor(s) and assessor, (including licence number if applicable);
- 6. Date of task completion;
- 7. Description of task and job card/work order/tech log, etc.;
- 8. Aircraft type and aircraft registration;
- 9. Aircraft rating applied for.

In order to facilitate the verification by the competent authority, demonstration of the OJT shall consist of (i) detailed worksheets/logbook and (ii) a compliance report demonstrating how the OJT meets the requirement of this Part.



# AMC to Appendix III to Part-66 'Aircraft Type Training and Examination Standard. On-the-Job Training'

ED Decision 2015/029/R

## Aircraft Type Training and On-the-Job Training

The theoretical and practical training providers, as well as the OJT provider, may contract the services of a language translator in the case where training is imparted to students not conversant in the language of the training material. Nevertheless, it remains essential that the students understand all the relevant maintenance documentation.

During the performance of examinations and assessments, the assistance of the translator should be limited to the translation of the questions, but should not provide clarifications or help in relation to those questions.

# AMC to Section 1 of Appendix III to Part-66 'Aircraft Type Training and Examination Standard. On-the-Job Training'

ED Decision 2015/029/R

## **Aircraft Type Training**

- 1. Aircraft type training may be sub-divided in airframe and/or powerplant and/or avionics/electrical systems type training courses.
  - Airframe type training course means a type training course including all relevant aircraft structure and electrical and mechanical systems excluding the powerplant.
  - Powerplant type training course means a type training course on the bare engine, including the build-up to a quick engine change unit.
  - The interface of the engine/airframe systems should be addressed by either airframe or powerplant type training course. In some cases, such as for general aviation, it may be more appropriate to cover the interface during the airframe course due to the large variety of aircraft that can have the same engine type installed.
  - Avionics/electrical systems type training course means type training on avionics and electrical systems covered by but not necessarily limited to ATA (Air Transport Association) Chapters 22, 23, 24, 25, 27, 31, 33, 34, 42, 44, 45, 46, 73 and 77 or equivalent.
- 2. Practical training may be performed either following or integrated with the theoretical elements. However, it should not be performed before theoretical training.
- 3. The content of the theoretical and practical training should:
  - address the different parts of the aircraft which are representative of the structure, the systems/components installed and the cabin; and
  - include training on the use of technical manuals, maintenance procedures and the interface with the operation of the aircraft.

Therefore it should be based on the following elements:

- Type design including relevant type design variants, new technology and techniques;
- Feedback from in-service difficulties, occurrence reporting, etc;
- Significant applicable airworthiness directives and service bulletins;



- Known human factor issues associated with the particular aircraft type;
- Use of common and specific documentation, (when applicable, such as MMEL, AMM, MPD, TSM, SRM, WD, AFM, tool handbook), philosophy of the troubleshooting, etc.;
- Knowledge of the maintenance on-board reporting systems and ETOPS maintenance conditions where applicable;
- Use of special tooling and test equipment and specific maintenance practises including critical safety items and safety precautions;
- Significant and critical tasks/aspects from the MMEL, CDL, Fuel Tank Safety (FTS), airworthiness limitation items (ALI) including Critical Design Configuration Control Limitations (CDCCL), CMR and all ICA documentation such as MRB, MPD, SRM, AMM, etc., when applicable.
- Maintenance actions and procedures to be followed as a consequence of specific certification requirements, such as, but not limited to, RVSM (Reduced Vertical Separation Minimum) and NVIS (Night Vision Imaging Systems);
- Knowledge of relevant inspections and limitations as applicable to the effects of environmental factors or operational procedures such as cold and hot climates, wind, moisture, sand, de-icing / anti-icing, etc.

The type training does not necessarily need to include all possible customer options corresponding to the type rating described in the <a href="Appendix I to AMC to Part-66">Appendix I to AMC to Part-66</a>.

- 4. Limited avionic system training should be included in the category B1 type training as the B1 privileges include work on avionics systems requiring simple tests to prove their serviceability.
- 5. Electrical systems should be included in both categories of B1 and B2 type training.
- 6. The theoretical and practical training should be complementary and may be:
  - Integrated or split
  - Supported by the use of training aids, such as trainers, virtual aircraft, aircraft components, synthetic training devices (STD), computer based training devices (CBT), etc.

AMC to Paragraphs 1(b), 3.2 and 4.2 of Appendix III to Part-66 'Aircraft Type Training and Examination Standard. On-the-Job Training'

ED Decision 2015/029/R

#### **Practical Element of the Aircraft Type Training**

- 1. The practical training may include instruction in a classroom or in simulators but part of the practical training should be conducted in a real maintenance or manufacturer environment.
- 2. The tasks should be selected because of their frequency, complexity, variety, safety, criticality, novelty, etc. The selected tasks should cover all the chapters described in the table contained in paragraph 3.2 of Appendix III to Part-66.
- 3. The duration of the practical training should ensure that the content of training required by paragraph 3.2 of Appendix III to Part-66 is completed.
  - Nevertheless, for aeroplanes with a MTOM equal or above 30000kg, the duration for the practical element of a type rating training course should not be less than two weeks unless a

- shorter duration meeting the objectives of the training and taking into account pedagogical aspects (maximum duration per day) is justified to the competent authority.
- 4. The organisation providing the practical element of the type training should provide trainees a schedule or plan indicating the list of tasks to be performed under instruction or supervision. A record of the tasks completed should be entered into a logbook which should be designed such that each task or group of tasks may be countersigned by the designated assessor. The logbook format and its use should be clearly defined.
- 5. In <u>paragraph 4.2 of Appendix III to Part-66</u>, the term 'designated assessors appropriately qualified' means that the assessors should demonstrate training and experience on the assessment process being undertaken and be authorised to do so by the organisation.
  - Further guidance about the assessment and the designated assessors is provided in <u>Appendix</u> III to AMC to Part-66.
- 6. The practical element (for powerplant and avionic systems) of the Type Rating Training may be subcontracted by the approved <a href="Part-147">Part-147</a> organisation under its quality system according to the provisions of <a href="147.A.145(d)3">147.A.145(d)3</a> and the corresponding Guidance Material.

## AMC to Paragraph 1(c) of Appendix III to Part-66 'Aircraft Type Training and Examination Standard. On-the-Job Training'

ED Decision 2015/029/R

#### **Differences Training**

Approved difference training is not required for different variants within the same aircraft type rating (as specified in <u>Appendix I to AMC to Part-66</u>) for the purpose of type rating endorsement on the aircraft maintenance licence.

However, this does not necessarily mean that no training is required before a certifying staff authorisation can be issued by the maintenance organisation (refer to AMC 66.A.20(b)3).

## AMC to point 3.1(d) of Appendix III to Part-66 'Aircraft Type Training and Examination Standard. On-the-Job Training'

ED Decision 2016/011/R

#### Training Needs Analysis for the Theoretical Element of the Aircraft Type Training

- 1. The minimum duration for the theoretical element of the type rating training course, as described in <a href="Appendix III to Part-66">Appendix III to Part-66</a>, has been determined based on:
  - generic categories of aircraft and minimum standard equipment fit
  - the estimated average duration of standard courses imparted in Europe
- 2. The purpose of the Training Needs Analysis (TNA) is to adapt and justify the duration of the course for a specific aircraft type. This means that the TNA is the main driver for determining the duration of the course, regardless of whether it is above or below the minimum duration described in <a href="Appendix III to Part-66">Appendix III to Part-66</a>.

In the particular case of type training courses approved on the basis of the requirements valid before Regulation (EU) No 1149/2011 was applicable (1 August 2012) and having a duration for the theoretical element equal to or above the minimum duration contained in <u>paragraph 3.1(c)</u> of Appendix III to Part-66, it is acceptable that the TNA only covers the differences introduced



by Regulation (EU) No 1149/2011 in paragraph 3.1(e) 'Content' and the criteria introduced in paragraph 3.1(d) 'Justification of course duration' related to the minimum attendance and the maximum number of training hours per day. This TNA may result in a change in the duration of the theoretical element.

- 3. The content and the duration deriving from this TNA may be supported by an analysis from the Type Certificate holder.
- 4. In order to approve a reduction of such minimum duration, the evaluation done by the competent authority should be performed on a case-by-case basis appropriate to the aircraft type. For example, while it would be exceptional for a theoretical course for a transport category complex motor-powered aircraft such as an A330 or B757 to be below the minimum duration shown, it would not necessarily be exceptional in the case of a General Aviation (GA) business aircraft such as a Learjet 45 or similar. Typically the TNA for a GA aircraft course would demonstrate that a course of a shorter duration satisfies the requirements.
- 5. When developing the TNA the following should be considered:
  - (a) The TNA should include an analysis identifying all the areas and elements where there is a need for training as well as the associated learning objectives, considering the design philosophy of the aircraft type, the operational environment, the type of operations and the operational experience. This analysis should be written in a manner which provides a reasonable understanding of which areas and elements constitute the course in order to meet the learning objectives.
  - (b) As a minimum, the Training Need Analysis (TNA) should take into account all the applicable elements contained in <u>paragraph 3.1 of Part-66 Appendix III</u> and associated AMCs.
  - (c) The TNA should set-up the course content considering the Appendix III objectives for each level of training and the prescribed topics in the theoretical element table contained in paragraph 3.1 of Part-66 Appendix III.
  - (d) For each chapter described in the theoretical element table contained in <u>paragraph 3.1</u> <u>of Part-66 Appendix III</u>, the corresponding training time should be recorded.
  - (e) Typical documents to be used in order to identify the areas and elements where there is a need for training typically include, among others, the Aircraft Maintenance Manual, MRB report, CMRs, airworthiness limitations, Troubleshooting Manual, Structural Repair Manual, Illustrated Parts Catalogue, Airworthiness Directives and Service Bulletins.
  - (f) During the analysis of these documents:
    - Consideration should be given to the following typical activities:
      - Activation/reactivation;
      - Removal/Installation;
      - Testing;
      - Servicing;
      - Inspection, check and repairs;
      - Troubleshooting / diagnosis.
    - For the purpose of identifying the specific elements constituting the training course, it is acceptable to use a filtering method based on criteria such as:



- Frequency of the task;
- Human factor issues associated to the task;
- Difficulty of the task;
- Criticality and safety impact of the task;
- In-service experience;
- Novel or unusual design features (not covered by <u>Part-66 Appendix I</u>);
- Similarities with other aircraft types;
- Special tests and tools/equipment.
- It is acceptable to follow an approach based on:
  - Tasks or groups of tasks, or
  - Systems or subsystems or components

#### (g) The TNA should:

- Identify the learning objectives for each task, group of tasks, system, subsystem or component;
- Associate the identified tasks to be trained to the regulatory requirements (table in <u>Paragraph 3.1 of Appendix III to Part-66</u>);
- Organise the training into modules in a logical sequence (adequate combination of chapters as defined in <u>Appendix III of Part-66</u>);
- Determine the sequence of learning (within a lesson and for the whole syllabus);
- Identify the scope of information and level of detail with regard the minimum standard to which the topics of the TNA should be taught according to the set-up objectives.
- Address the following:
  - Description of each system/component including the structure (where applicable);
  - System/component operation taking into account:
    - (a) Complexity of the system (e.g. the need of further break down into subsystems, etc.);
    - (b) Design specifics which may require more detailed presentation or may contribute to maintenance errors;
    - (c) Normal and emergency functioning;
    - (d) Troubleshooting;
    - (e) Interpretation of indications and malfunctions;
    - (f) Use of maintenance publications;
    - (g) Identification of special tools and equipment required for servicing and maintaining the aircraft;
    - (h) Maintenance Practices;

- (i) Routine inspections, functional or operational tests, rigging/adjustment, etc.
- Describe the following:
  - The instructional methods and equipment, teaching methods and blending of the teaching methods in order to ensure the effectiveness of the training;
  - The maintenance training documentation/material to be delivered to the student;
  - Facilitated discussions, questioning session, additional practiced-oriented training, etc.;
  - The homework, if developed;
  - The training provider's resources available to the learner.
- (h) It is acceptable to differentiate between issues which have to be led by an instructor and issues which may be delivered through interactive simulation training devices and/or covered by web based elements. Overall time of the course will be allocated accordingly.
- (i) The maximum number of training hours per day for the theoretical element of type training should not be more than 6 hours. A training hour means 60 minutes of tuition excluding any breaks, examination, revision, preparation and aircraft visit. In exceptional cases, the competent authority may allow deviation from this standard when it is properly justified that the proposed number of hours follows pedagogical and human factors principles. These principles are especially important in those cases where:
  - Theoretical and practical training are performed at the same time;
  - Training and normal maintenance duty/apprenticeship are performed at the same time.
- (j) The minimum participation time for the trainee in order to meet the objectives of the course should not be less than 90 % of the tuition hours of the theoretical training course. Additional training may be provided by the training organisation in order to meet the minimum participation time. If the minimum participation defined for the course is not met, a certificate of recognition should not be issued.
- (k) The TNA is a living process and should be reviewed/updated based on operation feedback, maintenance occurrences, airworthiness directives, major service bulletins impacting maintenance activities or requiring new competencies for mechanics, alert service bulletins, feedback from trainees or customer satisfaction, evolution of the maintenance documentation such as MRBs, MPDs, MMs, etc. The frequency at which the TNA should be reviewed/updated is left to the discretion of the organisation conducting the course.

NOTE: The examination is not part of the TNA. However, it should be prepared in accordance with the learning objectives described in the TNA.



## AMC to Section 5 of Appendix III to Part-66 'Aircraft Type Training and Examination Standard. On-the-Job Training'

ED Decision 2015/029/R

#### **Type Examination Standard**

This Section 5 'Type Examination Standard' does not apply to the examination performed as part of type training. This Section only applies to those cases where type examination is performed as a substitute for type training.

## AMC to Section 6 of Appendix III to Part-66 'Aircraft Type Training and Examination Standard. On-the-Job Training'

FD Decision 2020/002/R

#### On-the-Job Training (OJT)

- 1. 'A maintenance organisation appropriately approved for the maintenance of the particular aircraft type' means a <u>Part-145</u>, <u>M.A. Subpart F</u> or Part-CAO approved maintenance organisation holding an A rating for such aircraft.
- 2. The OJT should include one to one supervision and should involve actual work task performance on aircraft/components, covering line and/or base maintenance tasks.
- 3. The use of simulators for OJT should not be allowed.
- 4. The OJT should cover at least 50% of the tasks contained in Appendix II to AMC to Part-66. Some tasks should be selected from each paragraph of the Appendix II list. Tasks should be selected among those applicable to the type of aircraft and licence (sub)category applied for. Other tasks than those in the Appendix II may be considered as a replacement when they are relevant. Typically, in addition to the variety and the complexity, the OJT tasks should be selected because of their frequency, safety, novelty, etc.
- 5. Up to 50% of the required OJT may be undertaken before the aircraft theoretical type training starts.
- 6. The organisation providing the on-the-job training should provide trainees a schedule or plan indicating the list of tasks to be performed under supervision. A record of the tasks completed should be entered into a logbook which should be designed such that each task or group of tasks is countersigned by the corresponding supervisor. The logbook format and its use should be clearly defined.
- 7. Regarding the day-to-day supervision of the OJT programme in the approved maintenance organisation and the role of the supervisor(s), the following should be considered:
  - It is sufficient that the completion of individual OJT tasks is confirmed by the direct supervisor(s), without being necessary the direct evaluation of the assessor.
  - During the day-to-day OJT performance, the supervision aims at overseeing the complete process, including task completion, use of manuals and procedures, observance of safety measures, warnings and recommendations and adequate behaviour in the maintenance environment.
  - The supervisor(s) should personally observe the work being performed to ensure the safe completeness and should be readily available for consultation, if needed during the OJT performance.

- The supervisor(s) should countersign the tasks and release the maintenance tasks as the trainee is still not qualified to do so.
- The supervisor(s) should therefore:
  - have certifying staff or support staff privileges relevant to the OJT tasks;
  - be competent for the selected tasks;
  - be safety-orientated;
  - be capable to coach (setting objectives, giving training, performing supervision, evaluating, handling trainee's reactions and cultural issues, managing objectively and positively debriefing sessions, determining the need for extra training or reorientate the training, reporting, etc.);
  - be designated by the approved maintenance organisation to carry out the supervision.
- 8. Regarding the assessor, the following should be considered:
  - The function of the assessor, as described in <u>Section 6 of Appendix III to Part-66</u>, is to conduct the final assessment of the completed OJT. This assessment should include confirmation of the completion of the required diversity and quantity of OJT and should be based on the supervisor(s) reports and feedback.
  - In <u>Section 6 of Appendix III to Part-66</u>, the term 'designated assessor appropriately qualified' means that the assessor should demonstrate training and experience on the assessment process being undertaken and should be authorised to do so by the organisation. Further guidance about the assessment and the designated assessors is provided in <u>Appendix III to AMC to Part-66</u>.
- 9. The procedures for OJT of a Part-145 organisation should be included into the Exposition Manual of the approved maintenance organisation (chapter 3.15, as indicated in AMC 145.A.70(a)).

However, since these procedures are approved by the competent authority of the maintenance organisation, and providing training is not one of the privileges of a maintenance organisation, they can only be used when the licensing authority is the same as the competent authority of the maintenance organisation. In other cases, it is up to the licensing authority to decide whether it accepts such procedures for the purpose of approving the OJT (refer to AMC 66.B.115).



# Appendix IV — Experience requirements for extending a Part-66 aircraft maintenance licence

Regulation (EU) 2018/1142

The table below shows the experience requirements for adding a new category or subcategory to an existing Part-66 licence.

The experience shall be practical maintenance experience in operating aircraft in the subcategory relevant to the application.

The experience requirement will be reduced by 50 % if the applicant has completed an approved <a href="Part-147">Part-147</a> course relevant to the subcategory.

To From	A1	A2	А3	A4	B1.1	B1.2	B1.3	B1.4	В2	B2L	В3
A1	_	6 months	6 months	6 months	2 years	6 months	2 years	1 year	2 years	1 year	6 months
A2	6 months	_	6 months	6 months	2 years	6 months	2 years	1 year	2 years	1 year	6 months
А3	6 months	6 months	_	6 months	2 years	1 year	2 years	6 months	2 years	1 year	1 year
A4	6 months	6 months	6 months	_	2 years	1 year	2 years	6 months	2 years	1 year	1 year
B1.1	None	6 months	6 months	6 months	_	6 months	6 months	6 months	1 year	1 year	6 months
B1.2	6 months	None	6 months	6 months	2 years	_	2 years	6 months	2 years	1 year	None
B1.3	6 months	6 months	None	6 months	6 months	6 months	-	6 months	1 year	1 year	6 months
B1.4	6 months	6 months	6 months	None	2 years	6 months	2 years	_	2 years	1 year	6 months
B2	6 months	6 months	6 months	6 months	1 year	1 year	1 year	1 year	_	-	1 year
B2L	6 months	6 months	6 months	6 months	1 year	1 year	1 year	1 year	1 year	-	1 year
В3	6 months	None	6 months	6 months	2 years	6 months	2 years	1 year	2 years	1 year	_

## Appendix V — Application Form — EASA Form 19

Regulation (EU) 2021/700

- 1. This Appendix contains an example of the form used for applying for the aircraft maintenance licence referred to in Annex III (Part-66).
- 2. The competent authority of the Member State may modify the EASA Form 19 only to include additional information necessary to support the case where the national requirements permit or require the aircraft maintenance licence issued in accordance with Annex III (Part-66) to be used outside the requirements of this Regulation.

APPLICATION FOR INITIAL/AMENDMENT/RENEWAL OF PART-66 AIRCRAFT	EASA FORM 19
MAINTENANCE LICENCE (AML)	
APPLICANT'S DETAILS:	
Name:	
Address:	
Tel: E-mail:	
Nationality: Date and Place of Birth:	
PART-66 AML DETAILS (if applicable):	
Licence No: Date of Issue:	
EMPLOYER'S DETAILS:	
Name:	
Address:	
Maintenance Organisation Approval Reference:	
Tel: Fax:	
APPLICATION FOR: (Tick relevant boxes)	
Initial AML Amendment of AML Renewal of AML	
(Sub)categories A B1 B2 B2L B3 C  Aeroplane Turbine	L (see below)
1. autoflight 2. instruments 3. com/nav 4. surveillance 5. airframe systems L-licence subcategories: L1C: Composite sailplanes L1: Sailplanes L2C: Composite powered sailplanes and composite ELA1 aeroplanes L2: Powered sailplanes and ELA1 aeroplanes	



Annex III (Part-66)
APPENDICES TO ANNEX III (Part-66)

L3H: Hot-air balloons  L3G: Gas balloons  L4H: Gas balloons  L4H: Hot-air airships  L4G: ELA2 gas airships  L5: Gas airship other than ELA2  Type endorsements/Rating endorsement/Limitation removal (if applicable):
I wish to apply for initial/amendment of/renewal of Part-66 AML, as indicated, and confirm that the information contained in this form was correct at the time of application.
I herewith confirm that:
1. I am not holding any Part-66 AML issued in another Member State;
2. I have not applied for any Part-66 AML in another Member State; and
3. I never had a Part-66 AML issued in another Member State which was revoked or suspended in any other Member State.
I also understand that any incorrect information could disqualify me from holding a Part-66 AML.
Signed: Name:
Date:
I wish to claim the following credits (if applicable):
Experience credits for Part-147 training
Examination credits for equivalent exam certificates
Please enclose all relevant certificates
Recommendation (if applicable): It is hereby certified that the applicant has met the relevant Part-66 maintenance knowledge and experience requirements and it is recommended that the competent authority grants or endorses the Part-66 AML.
Signed: Name:
Position: Date:

EASA Form 19 Issue 5



## Appendix VI — Aircraft Maintenance Licence referred to in Annex III (Part-66) — EASA Form 26

Regulation (EU) 2018/1142

- 1. An example of the aircraft maintenance licence referred to in <u>Annex III (Part-66)</u> can be found on the following pages.
- 2. The document shall be printed in the standardised form shown but may be reduced in size to allow it being generated by computer. When the size is reduced, care shall be taken to ensure that sufficient space is available in those places where official seals or stamps are required. Computer-generated documents need not have all the boxes incorporated when any such box remains blank, so long as the document can clearly be recognised as an aircraft maintenance licence issued in accordance with Annex III (Part-66).
- 3. The document may be filled in either in English or the official language of the Member State of the competent authority. In the latter case, a second copy in English shall be attached to the document for any licence holder who needs to use the licence outside that Member State to ensure understanding for the purpose of mutual recognition.
- 4. Each licence holder shall have a unique licence holder number, established on the basis of a national identifier and an alpha-numeric designator.
- 5. The document may have the pages in a different order to the one of this example and needs not have some or any divider lines as long as the information contained is positioned in such a manner that each page lay-out can clearly be identified with the format of the example of the aircraft maintenance licence contained herein.
- 6. The document shall be prepared by the competent authority. However, it may also be prepared by any maintenance organisation approved in accordance with Annex II (Part-145), where the competent authority agrees to this and the preparation takes place in accordance with a procedure laid down in the maintenance organisation exposition referred to in point 145.A.70 of Annex II (Part-145). In all cases, the competent authority shall issue the document.
- 7. The preparation of any change to an existing aircraft maintenance licence shall be carried out by the competent authority. However, it may also be prepared by any maintenance organisation approved in accordance with <a href="Annex II">Annex II</a> (Part-145), where the competent authority agrees to this and the preparation takes place in accordance with a procedure laid down in the maintenance organisation exposition referred to in point <a href="145.A.70">145.A.70</a> of Annex II (Part-145). In all cases, the competent authority shall change the document.
- 8. The holder of the aircraft maintenance licence shall keep it in good condition and shall ensure that no unauthorised entries are made. Failure to comply with this rule may invalidate the license or lead to the holder not being permitted to hold any certification privilege. It may also result in prosecution under national law.
- 9. The aircraft maintenance licence issued in accordance with Annex III (Part-66) shall be recognised in all Member States and it is not required to exchange the document when working in another Member State.
- 10. The Annex to <u>EASA Form 26</u> is optional and may only be used to include national privileges, where such privileges are covered by national law outside the scope of Annex III (Part-66).
- 11. With regard to the aircraft type rating page of the aircraft maintenance licence, the competent authority may decide not to issue this page until the first aircraft type rating needs to be endorsed and may need to issue more than one aircraft type rating page depending on the number of type ratings to be listed.



- 12. Notwithstanding point 11, each page issued shall be in the format of this example and contain the specified information for that page.
- 13. The aircraft maintenance licence shall clearly indicate that the limitations are exclusions from the certification privileges. If there are no limitations applicable, the LIMITATIONS page shall state 'No limitations'.
- 14. Where a pre-printer format is used for issuing the aircraft maintenance licence, any category, subcategory or type rating box which does not contain a rating entry shall be marked to show that the rating is not held.

# I. EUROPEAN UNION (\*) [STATE] [AUTHORITY NAME & LOGO]

II.
Part-66
AIRCRAFT MAINTENANCE
LICENCE

III.
Licence No. [MEMBER STATE
CODE].66.[XXXX]

EASA	FORM	26	Issue	5
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IVa. Full name of holder:
IVb. Date and place of birth:
V. Address of holder:
VI. Nationality of holder:
VII. Signature of holder:
III. Licence No:

#### VIII. CONDITIONS:

This licence shall be signed by the holder and be accompanied by an identity document containing a photograph of the licence holder.

Endorsement of any categories on the page(s) entitled 'Part-66 CATEGORIES' only, does not permit the holder to issue a certificate of release to service for an aircraft.

This licence, when endorsed with an aircraft rating, meets the intent of ICAO Annex 1.

The privileges of this licence holder are prescribed by Regulation (EU) No 1321/2014 and, in particular, Annex III (Part-66) thereto.

This licence remains valid until the date specified on the limitation page unless previously suspended or revoked.

The privileges of this licence may not be exercised unless in the preceding two-year period, the holder had either six months of maintenance experience in accordance with the privileges granted by the licence, or met the provisions for the issue of the appropriate privileges.

III. Licence No:

IX. Part-66 CATEGORIES							
VALIDITY	Α	B1	B2	B2L	В3	L	С
Aeroplanes Turbine			n,	/a	n/a	n/a	n/a
Aeroplanes Piston			n,	/a	n/a	n/a	n/a
Helicopters Turbine			n/a		n/a	n/a	n/a
Helicopters Piston			n/a		n/a	n/a	n/a
Avionics	n/a	n/a			n/a	n/a	n/a
Complex motor-powered aircraft	n/a	n/a	n,	/a	n/a	n/a	
Aircraft other than complex motor-powered aircraft	n/a	n/a	n,	/a	n/a	n/a	
Sailplanes, powered sailplanes, ELA1 aeroplanes, balloons and airships	n/a	n/a	n	/a	n/a		n/a
Piston engine non pressurised aeroplanes of 2 000 kg MTOM and below		n/a	n,	/a		n/a	n/a

- X. Signature of issuing officer & date:
- XI. Seal or stamp of issuing authority:
- III. Licence No:



XII. PART-66 RAT	INGS		XIII. PART-66 LIMITATIONS
Aircraft Rating/ System ratings	Category/Subcategory	Stamp & Date	
			Valid until:
III. Licence No:			III. Licence No:
XIV. NATIONAL P accordance with State])  Official Stamp &	Annex to EASA FORM RIVILEGES outside the scope [National Legislation] (Valid	e of Part-66, in	INTENTIONALLY LEFT BLANK
III. Licence No:			

EASA Form 26 Issue 5



# Appendix VII — Basic knowledge requirements for category L aircraft maintenance licence

Regulation (EU) 2018/1142

The definitions of the different levels of knowledge required in this Appendix are the same as those contained in <u>point 1</u> of Appendix I to Annex III (Part-66).

Subcategories	Modules required for each subcategory (refer to the syllabus table below)
L1C: composite sailplanes	1L, 2L, 3L, 5L, 7L and 12L
L1: sailplanes	1L, 2L, 3L, 4L, 5L, 6L, 7L and 12L
L2C: composite powered sailplanes and composite ELA1 aeroplanes	1L, 2L, 3L, 5L, 7L, 8L and 12L
L2: powered sailplanes and ELA1 aeroplanes	1L, 2L, 3L, 4L, 5L, 6L, 7L, 8L and 12L
L3H: hot-air balloons	1L, 2L, 3L, 9L and 12L
L3G: gas balloons	1L, 2L, 3L, 10L and 12L
L4H: hot-air airships	1L, 2L, 3L, 8L, 9L, 11L and 12L
L4G: ELA2 gas airships	1L, 2L, 3L, 8L, 10L, 11L and 12L
L5: gas airships above ELA2	Basic knowledge requirements for any B1 subcategory plus 8L (for B1.1 and B1.3), 10L, 11L and 12L

#### TABLE OF CONTENTS:

Modu	ule Designation
1L	'Basic knowledge'
2L	'Human factors'
3L	'Aviation legislation'
4L	'Airframe wooden/metal tube and fabric'
5L	'Airframe composite'
6L	'Airframe metal'
7L	'Airframe general'
8L	'Power plant'
9L	'Balloon/Airship hot air'
10L	'Balloon/Airship gas (free/tethered)'
11L	'Airships hot air/gas'
12L	'Radio Com/ELT/Transponder/Instruments'



#### MODULE 1L — BASIC KNOWLEDGE

MODULE 1L — BASIC KNOWLEDGE	Level
1L.1 Mathematics	1
Arithmetic	
<ul> <li>Arithmetical terms and signs;</li> </ul>	
<ul> <li>Methods of multiplication and division;</li> </ul>	
— Fractions and decimals;	
— Factors and multiples;	
<ul> <li>Weights, measures and conversion factors;</li> </ul>	
— Ratio and proportion;	
— Averages and percentages;	
— Areas and volumes, squares, cubes.	
Algebra	
<ul> <li>Evaluating simple algebraic expressions: addition, subtraction, multiplication and division;</li> </ul>	
<ul> <li>Use of brackets;</li> </ul>	
— Simple algebraic fractions.	
Geometry	
- Simple geometrical constructions;	
— Graphical representation: nature and uses of graphs.	
	1
<ul><li>1L.2 Physics Matter</li><li>— Nature of matter: the chemical elements;</li></ul>	1
— Chemical compounds;	
— States: solid, liquid and gaseous;	
— Changes between states.	
Mechanics	
— Forces, moments and couples, representation as vectors;	
— Centre of gravity;	
— Tension, compression, shear and torsion;	
<ul> <li>Nature and properties of solids, fluids and gases.</li> </ul>	
Temperature  The agree and the second and the secon	
— Thermometers and temperature scales: Celsius, Fahrenheit and Kelvin;	
— Heat definition.	
1L.3 Electrics	1
DC Circuits	
— Ohm's law, Kirchoff's voltage and current laws;	
— Significance of the internal resistance of a supply;	
<ul><li>Resistance/resistor;</li></ul>	
<ul> <li>Resistor colour code, values and tolerances, preferred values, wattage ratings;</li> </ul>	
— Resistors in series and parallel.	
1L.4 Aerodynamics/aerostatics	1
International Standard Atmosphere (ISA), application to aerodynamics and aerostatics.	
Aerodynamics	
— Airflow around a body;	
— Boundary layer, laminar and turbulent flow;	
— Thrust, weight, aerodynamic resultant;	
— Generation of lift and drag: angle of attack, polar curve, stall.	
Aerostatics	
Effect on envelopes, wind effect, altitude and temperature effects.	
1L.5 Workplace safety and environmental protection	2
<ul> <li>Safe working practices and precautions when working with electricity, gases (especially</li> </ul>	
oxygen), oils and chemicals;	
<ul> <li>Labelling, storage and disposal of hazardous (to safety and environment) materials;</li> </ul>	
<ul> <li>Remedial action in the event of a fire or another accident with one or more hazards,</li> </ul>	
including knowledge of extinguishing agents.	



#### **MODULE 2L — HUMAN FACTORS**

MODULE 2L — HUMAN FACTORS	Level
2L.1 General	1
— The need to take human factors into account;	
<ul> <li>Incidents attributable to human factors/human error;</li> </ul>	
— Murphy's Law.	
2L.2 Human performance and limitations	1
Vision, hearing, information processing, attention and perception, memory.	
2L.3 Social psychology	1
Responsibility, motivation, peer pressure, teamwork.	
2L.4 Factors affecting performance	1
Fitness/health, stress, sleep, fatigue, alcohol, medication, drug abuse.	
2L.5 Physical environment	1
Working environment (climate, noise, illumination).	

#### $MODULE\ 3L-AVIATION\ LEGISLATION$

MODULE 3L — AVIATION LEGISLATION	Level
<ul> <li>3L.1 Regulatory framework</li> <li>— Role of the European Commission, EASA and National Aviation Authorities (NAAs);</li> <li>— Applicable parts of Part-M and Part-66.</li> </ul>	1
<ul><li>3L.2 Repairs and modifications</li><li>— Approval of changes (repairs and modifications);</li><li>— Standard changes and standard repairs.</li></ul>	2
3L.3 Maintenance data  — Airworthiness Directives (ADs), Instructions for Continuing Airworthiness (ICA) (AMM, IPC, etc.);  — Flight Manual;  — Maintenance records.	2

#### MODULE 4L — AIRFRAME WOODEN/METAL TUBE AND FABRIC

MODULE 4L — AIRFRAME WOODEN/METAL TUBE AND FABRIC	Level
<ul> <li>4L.1 Airframe wooden/combination of metal tube and fabric</li> <li>Timber, plywood, adhesives, preservation, power line, properties, machining;</li> <li>Covering (covering materials, adhesives and finishes, natural and synthetic covering materials and adhesives);</li> <li>Paint, assembly and repair processes;</li> <li>Recognition of damages from overstressing of wooden/metal-tube and fabric structures;</li> <li>Deterioration of wood components and coverings;</li> <li>Crack test (optical procedure, e.g., magnifying glass) of metal components. Corrosion and preventive methods. Health and fire safety protections.</li> </ul>	2
<ul> <li>4L.2 Material</li> <li>Types of wood, stability, and machining properties;</li> <li>Steel and light alloy tubes and fittings, fracture inspections of welded seams;</li> <li>Plastics (overview, understanding of the properties);</li> <li>Paints and paint removal;</li> <li>Glues, adhesives;</li> <li>Covering materials and technologies (natural and synthetic polymers).</li> </ul>	2
<ul> <li>4L.3 Identifying damage</li> <li>— Overstress of wood / metal-tubing and fabric structures;</li> <li>— Load transfers;</li> <li>— Fatigue strength and crack testing.</li> </ul>	3

Annex III (Part-66)
APPENDICES TO ANNEX III (Part-66)

4L.4 Performance of practical activities	2
<ul> <li>Locking of pins, screws, castellated nuts, turnbuckles;</li> </ul>	
— Thimble splice;	
<ul> <li>Nicopress and Talurit repairs;</li> </ul>	
<ul><li>Repair of coverings;</li></ul>	
— Repair of transparencies;	
<ul><li>Repair exercises (plywood, stringer, handrails, skins);</li></ul>	
— Aircraft Rigging. Calculation of control surface mass balance and range of movement of the	
control surfaces, measurement of operating forces;	
— Performance of 100-hours/annual inspections on a wood or combination of metal-tube and	
fabric airframe.	

#### MODULE 5L — AIRFRAME COMPOSITE

MODULE 5L — AIRFRAME COMPOSITE	Level
5L.1 Airframe fibre-reinforced plastic (FRP)  — Basic principles of FRP construction;  — Resins (Epoxy, polyester, phenolic resins, vinyl ester resins);  — Reinforcement materials glass, aramide and carbon fibres, features;  — Fillers;  — Supporting cores (balsa, honeycombs, foamed plastics);  — Constructions, load transfers (solid FRP shell, sandwiches);  — Identification of damage during overstressing of components;  — Procedure for FRP projects (according to Maintenance Organisation Manual) including storage conditions for material.	2
<ul> <li>5L.2 Material</li> <li>Thermosetting plastics, thermoplastic polymers, catalysts;</li> <li>Understanding properties, machining technologies, detaching, bonding, welding;</li> <li>Resins for FRP: epoxy resins, polyester resins, vinyl ester resins, phenolic resins;</li> <li>Reinforcement materials;</li> <li>From elementary fibre to filaments (release agent, finish), weaving patterns;</li> <li>Properties of individual reinforcement materials (E-glass fibre, aramide fibre, carbon fibre);</li> <li>Problem with multiple-material systems, matrix;</li> <li>Adhesion/cohesion, various behaviours of fibre materials;</li> <li>Filling materials and pigments;</li> <li>Technical requirements for filling materials;</li> <li>Property change of the resin composition through the use of E-glass, micro balloon, aerosols, cotton, minerals, metal powder, organic substances;</li> <li>Paint assembly and repair technologies;</li> <li>Support materials;</li> <li>Honeycombs (paper, FRP, metal), balsa wood, Divinycell (Contizell), development trends.</li> </ul>	2
<ul> <li>5L.3 Assembly of Fibre-Reinforced Composite-Structure Airframes</li> <li>Solid shell;</li> <li>Sandwiches;</li> <li>Assembly of aerofoils, fuselages, control surfaces.</li> </ul>	2
<ul> <li>5L.4 Identifying Damage</li> <li>Behaviour of FRP components in the event of overstressing;</li> <li>Identifying delaminations, loose bonds;</li> <li>Bending vibration frequency in aerofoils;</li> <li>Load transfer;</li> <li>Frictional connection and positive locking;</li> <li>Fatigue strength and corrosion of metal parts;</li> <li>Metal bonding, surface finishing of steel and aluminium components during bonding with FRP.</li> </ul>	3



<ul> <li>5L.5 Mold making</li> <li>— Plaster molds, mold ceramics;</li> <li>— GFK molds, Gel-coat, reinforcement materials, rigidity problems;</li> <li>— Metal molds;</li> <li>— Male and female molds.</li> </ul>	2
5L.6 Performance of practical activities	2
<ul> <li>Locking of pin, screws, castellated nuts, turnbuckles;</li> </ul>	
— Thimble splice;	
— Nicopress and Talurit repairs;	
— Repair of coverings;	
— Repair of solid FRP shells;	
<ul> <li>Mold fabrication/molding of a component (e.g. fuselage nose, landing gear fairing, wing tip</li> </ul>	
and winglet);	
<ul> <li>Repair of sandwich shell where interior and exterior layer are damaged;</li> </ul>	
<ul> <li>Repair of sandwich shell by pressing with a vacuum bag;</li> </ul>	
— Transparency repair (PMMA) with one- and two-component adhesive;	
<ul> <li>Bonding of transparency with the canopy frame;</li> </ul>	
<ul> <li>Tempering of transparencies and other components;</li> </ul>	
<ul> <li>Performance of a repair on a sandwich shell (minor repair less than 20 cm);</li> </ul>	
<ul> <li>Aircraft Rigging. Calculation of control surface mass balance and range of movement of the</li> </ul>	
control surfaces, measurement of operating forces;	
<ul> <li>Performance of 100-hour/annual inspections on an FRP airframe.</li> </ul>	

#### MODULE 6L — AIRFRAME METAL

MODULE 6L — AIRFRAME METAL	Level
<ul> <li>6L.1 Airframe metal</li> <li>Metallic materials and semi-finished products, machining methods;</li> <li>Fatigue strength and crack test;</li> <li>Assembly of metal-construction components, riveted joints, adhesive joints;</li> <li>Identification of damage to overstressed components, effects of corrosion;</li> <li>Health and fire protection.</li> </ul>	2
<ul> <li>6L.2 Material</li> <li>Steel and its alloys;</li> <li>Light metals and their light alloys;</li> <li>Rivet materials;</li> <li>Plastics;</li> <li>Colours and paints;</li> <li>Metal adhesives;</li> <li>Types of corrosion;</li> <li>Covering materials and technologies (natural and synthetic).</li> </ul>	2
<ul> <li>6L.3 Identifying damage</li> <li>Overstressed metal airframes, levelling, measurement of symmetry;</li> <li>Load transfers;</li> <li>Fatigue strength and crack test;</li> <li>Identifying loose riveted joints.</li> </ul>	3
6L.4 Assembly of metal- and composite-construction airframes  — Skins;  — Frames;  — Stringers and longerons;  — Frame construction;  — Problems in multiple-material systems.	2
6L.5 Fasteners  — Classifications of fits and clearances;	2



— Metric and imperial measuring systems;	
— Oversize bolt.	
6L.6 Performance of practical activities	2
<ul> <li>Locking of pins, screws, castellated nuts, turnbuckles;</li> </ul>	
— Thimble splice;	
— Nicopress and Talurit repairs;	
<ul> <li>Repair of coverings, surface damage, stop drilling techniques;</li> </ul>	
— Repair of transparencies;	
<ul> <li>Cutting out sheet metals (aluminiums and light alloys, steel and alloys);</li> </ul>	
<ul> <li>Folding bending, edging, beating, smoothening, beading;</li> </ul>	
<ul> <li>Repair riveting of metal airframes according to repair instruction or drawings;</li> </ul>	
— Evaluation of rivet errors;	
<ul> <li>Aircraft Rigging. Calculation of control surface mass balance and range of movement of the</li> </ul>	
control surfaces, measurement of operating forces;	
<ul> <li>Performance of 100-hour/annual inspections on a metal airframe.</li> </ul>	

#### MODULE 7L — AIRFRAME GENERAL

MODULE 7L — AIRFRAME GENERAL	Level
<ul> <li>7L.1 Flight control system</li> <li>Cockpit controls: controls in cockpit, colour markings, knob shapes;</li> <li>Flight controls surfaces, flaps, air brakes surfaces, controls, hinges, bearings, brackets, pushpull rods, bell cranks, horns, pulleys, cables, chains, tubes, rollers, tracks, jack screws, surfaces, movements, lubrication, stabilisers, balancing of controls;</li> <li>Combination of controls: flap ailerons, flap air brakes;</li> <li>Trim systems.</li> </ul>	3
<ul> <li>7L.2 Airframe</li> <li>Landing gear: characteristics of landing gears and shock absorber strut, extension, brakes, drum, disks, wheel, tyre, retraction mechanism, electrical retraction, emergency;</li> <li>Wing to fuselage mounting points, empennage (fin and tail plane) to fuselage mounting points, control surface mounting points;</li> <li>Permissible maintenance measures;</li> <li>Towing: towing/lifting equipment/mechanism;</li> <li>Cabin: seats and safety harness, cabin arrangement, windshields, windows, placards, baggage compartment, cockpit controls, cabin air system, blower;</li> <li>Water ballast: water reservoirs, lines, valves, drains, vents, tests;</li> <li>Fuel system: tanks, lines, filters, vents, drains, filling, selector valve, pumps, indication, tests, bonding;</li> <li>Hydraulics: system layout, accumulators, pressure and power distribution, indication;</li> <li>Liquid and gas: hydraulic, other fluids, levels, reservoir, lines, valves, filter;</li> <li>Protections: firewalls, fire protection, lightning strike bonding, turnbuckles, locking devices, dischargers.</li> </ul>	2
7L.3 Fasteners  — Reliability of pins, rivets, screws;  — Control cables, turnbuckles;  — Quick-release couplings (L'Hotellier, SZD, Poland).	2
<ul> <li>7L.4 Locking equipment</li> <li>Admissibility of locking methods, locking pins, spring steel pins, locking wire, stop nuts, paint;</li> <li>Quick-release couplings.</li> </ul>	2
7L.5 Weight and balance levelling	2
7L.6 Rescue systems	2
7L.7 On-board modules  — Pitot-static system, vacuum/dynamic system, hydrostatic test;	2



<ul> <li>Flight instruments: airspeed indicator, altimeter, vertical-speed indicator, connection and functioning, markings;</li> <li>Arrangement and display, panel, electrical wires;</li> <li>Gyroscopes, filters, indicating instruments; testing of function;</li> <li>Magnetic compass: installation and compass swing;</li> <li>Sailplanes: acoustic vertical-speed indicator, flight recorders, anticollision aid;</li> <li>Oxygen system.</li> </ul>	
7L.8 On-board modules installation and connections  — Flight instruments, mounting requirements (emergency landing conditions as per CS-22);  — Electric wiring, power sources, types of storage batteries, electrical parameters, electric generator, circuit breaker, energy balance, earth/ground, connectors, terminals, warnings, fuses, lamps, lightings, switches, voltmeters, ampere meters, electrical gauges.	2
7L.9 Piston engine propulsion Interface between power plant and airframe.	2
7L.10 Propeller  — Inspection;  — Replacement;  — Balancing.	2
<ul> <li>7L.11 Retraction system</li> <li>— Propeller position control;</li> <li>— Engine and/or propeller retraction system.</li> </ul>	2
7L.12 Physical inspection procedures  — Cleaning, use of lighting and mirrors;  — Measuring tools;  — Measure of controls deflection;  — Torque of screws and bolts;  — Wear of bearings;  — Inspection equipment;  — Calibration of measuring tools.	2

#### MODULE 8L — POWER PLANT

MODULE 8L — POWER PLANT	Level
8L.1 Noise limits  — Explanation of the concept of 'noise level';  — Noise certificate;  — Enhanced sound proofing;  — Possible reduction of sound emissions.	1
<ul> <li>8L.2 Piston engines</li> <li>Four-stroke spark ignition engine, air-cooled engine, fluid-cooled engine;</li> <li>Two-stroke engine;</li> <li>Rotary-piston engine;</li> <li>Efficiency and influencing factors (pressure-volume diagram, power curve);</li> <li>Noise control devices.</li> </ul>	2
8L.3 Propeller  — Blade, spinner, backplate, accumulator pressure, hub;  — Operation of propellers;  — Variable-pitch propellers, ground and in-flight adjustable propellers, mechanically, electrically and hydraulically;  — Balancing (static, dynamic);  — Noise problems.	2
8L.4 Engine control devices  — Mechanical control devices;  — Electrical control devices;	2



— Tank displays;	
— Functions, characteristics, typical errors and error indications.	
8L.5 Hosepipes	2
Material and machining of fuel and oil hoses;	
— Control of life limit.	2
8L.6 Accessories  — Operation of magneto ignition;	2
— Control of maintenance limits;	
— Operation of carburettors;	
Maintenance instructions on characteristic features;	
<ul><li>— Electric fuel pumps;</li><li>— Operation of propeller controls;</li></ul>	
— Electrically operated propeller control;	
— Hydraulically operated propeller control.	
8L.7 Ignition system	2
— Constructions: coil ignition, magneto ignition, and thyristor ignition;	
<ul> <li>Efficiency of the ignition and preheat system;</li> <li>Modules of the ignition and preheat system;</li> </ul>	
Inspection and testing of a spark plug.	
8L.8 Induction and exhaust systems	2
— Operation and assembly;	
— Silencers and heater installations;	
<ul><li>Nacelles and cowlings;</li><li>Inspection and test;</li></ul>	
— CO emission test.	
8L.9 Fuels and lubricants	2
— Fuel characteristics;	
— Labelling, environmentally friendly storage;	
<ul> <li>Mineral and synthetic lubricating oils and their parameters: labelling and characteristics,</li> <li>application;</li> </ul>	
Environmentally friendly storage and proper disposal of used oil.	
8L.10 Documentation	2
— Manufacturer documents for the engine and propeller;	
— Instructions for Continuing Airworthiness (ICA);	
<ul><li>— Aircraft Flight Manuals (AFMs) and Aircraft Maintenance Manuals (AMMs);</li><li>— Time Between Overhaul (TBO);</li></ul>	
Airworthiness Directives (ADs), technical notes and service bulletins.	
8L.11 Illustrative material	2
— Cylinder unit with valve;	
— Carburettor;	
<ul><li>High-tension magneto;</li><li>Differential-compression tester for cylinders;</li></ul>	
<ul><li>Overheated/damaged pistons;</li></ul>	
— Spark plugs of engines that were operated differently.	
8L.12 Practical experience	2
Work safety/accident prevention (handling of fuels and lubricants, start-up of engines);  Bigging engine central rade and Rouden cables;	
<ul><li>Rigging-engine control rods and Bowden cables;</li><li>Setting of no-load speed;</li></ul>	
- Checking and setting the ignition point;	
— Operational test of magnetos;	
— Checking the ignition system;	
<ul> <li>Testing and cleaning of spark plugs;</li> <li>Performance of the engine tasks contained in an aeroplane 100-hour/annual inspection;</li> </ul>	
remormance of the engine tasks contained in an aeropiane 100-nour/annual inspection,	



<ul> <li>Cylinder compression test;</li> <li>Static test and evaluation of the engine run;</li> <li>Documentation of maintenance work including replacement of components.</li> <li>8L.13 Gas exchange in internal-combustion engines</li> <li>Four-stroke reciprocating engine and control units;</li> <li>Energy losses;</li> <li>Ignition timing;</li> <li>Direct flow behaviour of control units;</li> <li>Warkel engine and control units;</li> </ul>	
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<ul> <li>Energy losses;</li> <li>Ignition timing;</li> <li>Direct flow behaviour of control units;</li> </ul>	2
<ul><li>— Ignition timing;</li><li>— Direct flow behaviour of control units;</li></ul>	
— Direct flow behaviour of control units;	
Wankel engine and control units;  The stroke engine and control units:	
— Two-stroke engine and control units;	
<ul><li>— Scavenging;</li><li>— Scavenging blower;</li></ul>	
Idle range and power range.	
8L.14 Ignition, combustion and carburation	2
— Ignition;	۷
— Spark plugs;	
— Ignition system;	
— Combustion process;	
— Normal combustion;	
— Efficiency and medium pressure;	
<ul> <li>Engine knock and octane rating;</li> </ul>	
— Combustion chamber shapes;	
— Fuel/air mix in the carburettor;	
— Carburettor principle, carburettor equation;	
— Simple carburettor;	
<ul> <li>Problems of the simple carburettor and their solutions;</li> </ul>	
— Carburettor models;	
— Fuel/air mix during injection;	
<ul> <li>Mechanically controlled injection;</li> <li>Electronically controlled injection;</li> </ul>	
— Continuous injection;	
— Carburettor-injection comparison.	
8L.15 Flight instruments in aircraft with injection engines	2
— Special flight instruments (injection engine);	_
Interpretation of indications in a static test;	
<ul> <li>Interpretation of indications in flight at various flight levels.</li> </ul>	
8L.16 Maintenance of aircraft with injection engines	2
Documentation, manufacturer documents, etc.;	
— General maintenance instructions (hourly inspections);	
— Functional tests;	
— Ground test run;	
— Test flight;	
<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> </ul>	
<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> <li>8L.17 Workplace safety and safety provisions Work safety and safety provisions for work on</li> </ul>	2
<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> </ul>	2
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<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> <li>8L.17 Workplace safety and safety provisions Work safety and safety provisions for work on injection systems.</li> <li>8L.18 Visual aids:</li> <li>Carburettor;</li> </ul>	
<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> <li>8L.17 Workplace safety and safety provisions Work safety and safety provisions for work on injection systems.</li> <li>8L.18 Visual aids:</li> <li>Carburettor;</li> <li>Components of injection system;</li> </ul>	
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<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> <li>8L.17 Workplace safety and safety provisions Work safety and safety provisions for work on injection systems.</li> <li>8L.18 Visual aids:</li> <li>Carburettor;</li> <li>Components of injection system;</li> <li>Aircraft with injection engine;</li> <li>Tool for work on injection systems.</li> </ul>	2
<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> <li>8L.17 Workplace safety and safety provisions Work safety and safety provisions for work on injection systems.</li> <li>8L.18 Visual aids:</li> <li>Carburettor;</li> <li>Components of injection system;</li> <li>Aircraft with injection engine;</li> <li>Tool for work on injection systems.</li> <li>8L.19 Electrical propulsion</li> </ul>	
<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> <li>8L.17 Workplace safety and safety provisions Work safety and safety provisions for work on injection systems.</li> <li>8L.18 Visual aids:</li> <li>Carburettor;</li> <li>Components of injection system;</li> <li>Aircraft with injection engine;</li> <li>Tool for work on injection systems.</li> <li>8L.19 Electrical propulsion</li> <li>Energy system, accumulators, installation;</li> </ul>	2
<ul> <li>Test flight;</li> <li>Troubleshooting in the event of faults in the injection system and their correction.</li> <li>8L.17 Workplace safety and safety provisions Work safety and safety provisions for work on injection systems.</li> <li>8L.18 Visual aids:</li> <li>Carburettor;</li> <li>Components of injection system;</li> <li>Aircraft with injection engine;</li> <li>Tool for work on injection systems.</li> <li>8L.19 Electrical propulsion</li> </ul>	2



<ul> <li>Testing windings;</li> <li>Electrical wiring and control systems;</li> <li>Pylon, extension and retraction systems;</li> <li>Motor/propeller brake systems;</li> <li>Motor ventilation systems;</li> <li>Practical experience of 100-hour/annual inspections.</li> </ul>	
8L.20 Jet propulsion  — Engine installation;  — Pylon, extension and retraction systems;  — Fire protection;  — Fuel systems including lubrication;  — Engine starting systems, gas assist;  — Engine damage assessment;  — Engine servicing;  — Engine removal / refit and test;  — Practical experience of conditional / run time / annual inspections;  — Conditional inspections.	2
8L.21 Full authority digital engine control (FADEC)	2

#### MODULE 9L — BALLOON/AIRSHIP HOT AIR

MODULE 9L — BALLOON/AIRSHIP HOT AIR	Level
9L.1 Basic principles and assembly of hot-air balloons/airships  — Assembly and individual parts;  — Envelopes;  — Envelope Materials;  — Envelope Systems;  — Conventional and special shapes;  — Fuel System;  — Burner, burner frame and burner support rods;  — Compressed-gas cylinders and compressed-gas hoses;  — Basket and alternative devices (seats);  — Rigging accessories;  — Maintenance and servicing tasks;  — Annual/100-hour inspection;  — Log Books;  — Aircraft Flight Manuals (AFMs) and Aircraft Maintenance Manuals (AMMs);  — Rigging and launch preparation (launch restraint);  — Launch.	3
9L.2 Practical training Operating controls, maintenance and servicing jobs (according to flight manual).	3
9L.3 Envelope  — Fabrics;  — Seams;  — Load tapes, rip stoppers;  — Crown rings;  — Parachute valve and fast-deflation systems;  — Ripping panel;  — Turning vent;  — Diaphragms/catenaries (special shapes and airships);  — Rollers, pulleys;  — Control and shroud lines;  — Knots;  — Temperature indication label, temperature flag, envelope thermometer;	3



<ul><li>— Flying wires;</li><li>— Fittings, karabiners.</li></ul>	
9L.4 Burner and fuel system  — Burner coils;  — Blast, liquid and pilot valves;  — Burners/jets;  — Pilot lights/vaporisers/jets;  — Burner frame;  — Fuel lines/hoses;  — Fuel cylinders, valves and fittings.	3
<ul> <li>9L.5 Basket and basket suspension (incl. alternative devices)</li> <li>Types of baskets (incl. alternative devices);</li> <li>Basket materials: cane and willow, hide, wood, trim materials, suspension cables;</li> <li>Seats, roller bearings;</li> <li>Karabiner, shackle and pins;</li> <li>Burner support rods;</li> <li>Fuel cylinder straps;</li> <li>Accessories.</li> </ul>	3
9L.6 Equipment  — Fire extinguisher, fire blanket;  — Instruments (single or combined).	3
9L.7 Minor repairs  — Stitching;  — Bonding;  — Basket hide/trim repairs.	3
9L.8 Procedures for physical inspection  — Cleaning, use of lighting and mirrors;  — Measuring tools;  — Measure of controls deflection (only airships);  — Torque of screws and bolts;  — Wear of bearings (only airships);  — Inspection equipment;  — Calibration of measuring tools;  — Fabric Grab Test.	2

#### ${\it MODULES~10L-BALLOON/AIRSHIP~GAS~(FREE/TETHERED)}$

MODULES 10L — BALLOON/AIRSHIP GAS (FREE/TETHERED)	Level
10L.1 Basic principles and assembly of gas balloons/airships	3
<ul><li>Assembly of individual parts;</li></ul>	
<ul> <li>Envelope and netting material;</li> </ul>	
— Envelope, ripping panel, emergency opening, cords and belts;	
— Rigid gas valve;	
— Flexible gas valve (parachute);	
— Netting;	
— Load ring;	
<ul> <li>Basket and accessories (including alternative devices);</li> </ul>	
— Electrostatic discharge paths;	
<ul> <li>Mooring line and drag rope;</li> </ul>	
<ul> <li>Maintenance and servicing;</li> </ul>	
— Annual inspection;	
— Flight papers;	
<ul> <li>Aircraft Flight Manuals (AFMs) and Aircraft Maintenance Manuals (AMMs);</li> </ul>	
<ul> <li>Rigging and launch preparation;</li> </ul>	



<ul><li>Launch.</li><li>10L.2 Practical training</li></ul>	
	3
— Operating controls;	J
<ul> <li>Maintenance and servicing jobs (according to AMM and AFM);</li> </ul>	
— Safety rules when using hydrogen as lifting gas.	
10L.3 Envelope	3
— Fabrics;	
<ul> <li>Poles and reinforcement of pole;</li> </ul>	
<ul><li>— Ripping panel and cord;</li><li>— Parachute and shroud lines;</li></ul>	
— Valves and cords;	
<ul><li>Filler neck, Poeschel-ring and cords;</li></ul>	
— Electrostatic discharge paths.	
10L.4 Valve	3
— Springs;	
— Gaskets;	
— Screwed joints;	
— Control lines;	
— Electrostatic discharge paths.	2
10L.5 Netting or rigging (without net)  — Kinds of net and other lines;	3
— Mesh sizes and angles;	
— Net ring;	
— Knotting methods;	
— Electrostatic discharge paths.	
10L.6 Load ring	3
10L.7 Basket (incl. alternative devices)	3
— Kinds of baskets (incl. alternative devices);	
— Strops and toggles;	
<ul><li>— Ballast system (bags and supports);</li><li>— Electrostatic discharge paths.</li></ul>	
10L.8 Ripping cord and valve cords	3
10L.9 Mooring line and drag rope	3
10L.10 Minor repairs	3
— Bonding;	3
— Splicing hemp ropes.	
10L.11 Equipment	3
Instruments (single or combined).	
10L.12 Tether cable (tethered gas balloons (TGB) only)	3
— Kinds of cables;	
— Acceptable damage of cable;	
— Cable swivel;	
— Cable clamps.	2
10L.13 Winch (tethered gas balloons only)  — Kinds of winches;	3
— Kinds of winches;  — Mechanical system;	
— Electrical system;	
— Emergency system;	
<ul><li>— Emergency system;</li><li>— Grounding/ballasting of winch.</li></ul>	
	2
— Grounding/ballasting of winch.	2



- Measure of controls deflection (only airships);
- Torque of screws and bolts;
- Wear of bearings (only airships);
- Inspection equipment;
- Calibration of measuring tools;
- Fabric grab test.

#### MODULES 11L — AIRSHIPS HOT AIR/GAS

MODULES 11L — AIRSHIPS HOT AIR/GAS	Level
<ul> <li>11L.1 Basic principles and assembly of small airships</li> <li>Envelope, ballonnets;</li> <li>Valves, openings;</li> <li>Gondola;</li> <li>Propulsion;</li> <li>Aircraft Flight Manuals (AFMs) and Aircraft Maintenance Manuals (AMMs);</li> <li>Rigging and launch preparation.</li> </ul>	3
<ul><li>11L.2 Practical training</li><li>— Operating controls;</li><li>— Maintenance and servicing jobs (according to AMM and AFM).</li></ul>	3
11L.3 Envelope  — Fabrics;  — Ripping panel and cords;  — Valves;  — Catenary system.	3
<ul> <li>11L.4 Gondola (incl. alternative devices)</li> <li>Kinds of gondolas (incl. alternative devices);</li> <li>Airframe types and materials;</li> <li>Identification of damage.</li> </ul>	3
<ul> <li>11L.5 Electrical system</li> <li>Basics about on-board electrical circuits;</li> <li>Electrical sources (accumulators, fixation, ventilation, corrosion);</li> <li>Lead, nickel-cadmium (NiCd) or other accumulators, dry batteries;</li> <li>Generators;</li> <li>Wiring, electrical connections;</li> <li>Fuses;</li> <li>External power source;</li> <li>Energy balance.</li> </ul>	3
11L.6 Propulsion  — Fuel system: tanks, lines, filters, vents, drains, filling, selector valve, pumps, indication, tests, bonding;  — Propulsion instruments;  — Basics about measuring and instruments;  — Revolution measuring;  — Pressure measuring;  — Temperature measuring;  — Available fuel/power measuring.	3
11L.7 Equipment  — Fire extinguisher, fire blanket;  — Instruments (single or combined).	3

#### ${\it MODULE~12L-RADIO~COM/ELT/TRANSPONDER/INSTRUMENTS}$

MODULE 12L — RADIO COM/ELT/TRANSPONDER/INSTRUMENTS	Level
12L.1 Radio Com/ELT  — Channel spacing;  — Basic functional test;	2
<ul> <li>— Batteries;</li> <li>— Testing and maintenance requirements.</li> </ul>	
<ul> <li>12L.2 Transponder</li> <li>— Basic operation;</li> <li>— Typical portable configuration including antenna;</li> <li>— Explanation of Modes A, C, S;</li> <li>— Testing and maintenance requirements.</li> </ul>	2
12L.3 Instruments  — Handheld altimeter/variometers;  — Batteries;  — Basic functional test.	2



## **Appendix VIII** — Basic examination standard for category L aircraft maintenance licence

Regulation (EU) 2018/1142

- (a) The standardisation basis for examinations related to the <u>Appendix VII</u> basic knowledge requirements shall be as follows:
  - (i) all examinations must be carried out using the multiple-choice question format as specified in point (ii). The incorrect alternatives must seem equally plausible to anyone ignorant of the subject. All of the alternatives should be clearly related to the question and of similar vocabulary, grammatical construction and length. In numerical questions, the incorrect answers should correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they must not be mere random numbers;
  - (ii) each multiple-choice question must have three alternative answers of which only one must be the correct answer and the candidate must be allowed a time per module which is based upon a nominal average of 75 seconds per question;
  - (iii) the pass mark for each module is 75 %;
  - (iv) penalty marking (negative points for failed questions) is not to be used;
  - (v) the level of knowledge required in the questions must be proportionate to the level of technology of the aircraft category.
- (b) The number of questions per module shall be as follows:
  - (i) module 1L 'Basic knowledge': 12 questions. Time allowed: 15 minutes;
  - (ii) module 2L 'Human factors': 8 questions. Time allowed: 10 minutes;
  - (iii) module 3L 'Aviation legislation': 24 questions. Time allowed: 30 minutes;
  - (iv) module 4L 'Airframe wooden/metal tube and fabric': 32 questions. Time allowed: 40 minutes;
  - (v) module 5L 'Airframe composite': 32 questions. Time allowed: 40 minutes;
  - (vi) module 6L 'Airframe metal': 32 questions. Time allowed: 40 minutes;
  - (vii) module 7L 'Airframe general': 64 questions. Time allowed: 80 minutes;
  - (viii) module 8L 'Power plant': 48 questions. Time allowed: 60 minutes;
  - (ix) module 9L 'Balloon/Airship hot air': 36 questions. Time allowed: 45 minutes;
  - (x) module 10L 'Balloon/Airship gas (free/tethered)': 40 questions. Time allowed: 50 minutes;
  - (xi) module 11L 'Airships hot air/gas': 36 questions. Time allowed: 45 minutes;
  - (xii) Module 12L 'Radio Com/ELT/transponder/instruments': 16 questions. Time allowed 20 minutes.



### **APPENDICES TO AMC TO ANNEX III (PART-66)**

## Appendix I — Aircraft Type Ratings for Part-66 Aircraft Maintenance Licences

ED Decision 2020/002/R

The following aircraft type ratings should be used to ensure a common standard throughout the Member States.

In order to keep this list up-to-date, if a Member State needs to issue a type rating that is not included in this list, the information should be passed on to EASA using the EASA 'Contact us' webpage (<a href="https://www.easa.europa.eu/contact-us">https://www.easa.europa.eu/contact-us</a>).

The tables may erroneously contain aircraft models that fall within the definition of Annex I aircraft of Regulation (EU) 2018/1139. The requirements of Part-66 do not apply to these aircraft.

#### Notes on type rating (TR) endorsement covering several models/variants:

The endorsement of a type rating (TR) on the aircraft maintenance licence (AML), covering several models/variants, does not automatically imply that the AML holder has acquired the appropriate knowledge on each model/variant. In fact, the AML holder may only have received TR training and/or gained experience that was limited to one or several models or variants.

To demonstrate adequate competence on the relevant model(s)/variant(s), the AML holder and/or the maintenance organisation where the AML holder is contracted/employed is (are) responsible to verify that the model/variant has been adequately covered by the TR course or gained experience and is up to date.

Further explanation can be found in AMC 66.A.20(b)3 and AMC 145.A.35(a).

#### Notes on when and how the licences should be modified:

The licensing authorities should implement the new type rating list within 6 months after publication of this Decision. During this implementation period, the old type ratings may still be endorsed. New applications for type ratings that are no longer certified by EASA should not be accepted. Licences with the old type ratings shall be endorsed with the amended type ratings, whenever the licensing authority deems necessary or the holder requests it; however, no later than the next renewal of the licence.

The instructions on how to endorse a modified type rating (for example, in the case of combined or split TRs) are included in the chapter 'Details of the changes' of explanatory note of the decision.

#### Notes on aircraft modified by a Supplemental Type Certificate (STC):

This Appendix intends to include the type ratings of aircraft resulting from STCs for installation
of a different engine. These STCs are those approved by EASA and those approved by the
Member States before 2003 and grandfathered by EASA. STCs other than those for engines are
not considered.

Example: The STC from JET AVIATION AG, approved by the LBA for replacement of GE CF 700 by Honeywell TFE731 on Fan Jet Falcon Series E, results in a new rating called 'Falcon 20E (Honeywell TFE731)'.

- However, the ratings from STCs for installation of an engine:
  - on part of the original airframe models, or
  - from the same manufacturer, but of a type very similar to the original one, have not been added because they would have resulted in an already existing rating.

#### Examples:

- The STC from SILVERHAWK CONVERSIONS approved by EASA for installation of PT6A-135A on Beech C90, C90A and E90 would result in the Beech C90/C90A/E90 (PWC PT6) rating, but this is not listed because it is already included in the original Beech 90 Series (PWC PT6) rating.
- The STC from Air-Service Wildgruber GmbH approved by LBA for replacement of PWC PT6A-20 by PWC PT6A-27 would result in the De Havilland DHC-6-100 (PWC PT6) rating, but this is not listed because it is already included in the De Havilland DHC-6 (PWC PT6) rating in the table.
- EASA has not received all the information concerning STCs that have been previously approved by the Member States. As a result, not all STCs are considered by this publication.
- When the STC concerns the installation of an engine that falls under a different subcategory, e.g. replacement of a piston engine by a turboprop (a turbine engine), then the new type rating endoresment requires compliance with all the relevant criteria for basic knowledge, experience, type training, and on-the-job training (OJT).
- In case a type rating resulting from an STC has not been yet defined by EASA, the latter shall be contacted by the competent authority to agree on a new type rating to be used.

#### In the following tables:

- The table is alphabetically sorted first by TC/STC Holder, then by TR endorsement, and finally by Model.
- The column 'TC Holder' includes the TC holder as defined in the type certificate data sheets (TCDS) (EASA, FAA or other) or the specific airworthiness specifications (SAS).
- The column 'STC Holder' includes the STC holder as defined in the supplemental type certificate data sheets (STCDS) (EASA, FAA or other).
- Some TC holders' designations have been corrected to add the information: 'Aircraft with an SAS', this means that the aircraft listed under this TC holder designation is considered to be an 'orphan aircraft'or General Aviation aircraft form CIS (former Sovjet Union) countries.
- In Group 3, the column 'Type of structure' intends to assist the competent authorities in identifying the experience required for this type with a view to removing existing limitations on the licence.
- In Group 4, the column 'Type of structure' intends to assist the competent authorities in identifying the required 'L' subcategories.
- Wooden structure covered with fabric is considered to fall under wooden structure. For aeroplanes with a combination of structures, e.g. metal tubing fuselage and wooden wings, both experiences 'metal tube covered with fabric' and 'wooden structure' are required.
- In Group 3, the column 'MTOM' intends to assist the competent authorities in identifying the aeroplane types where the maximum take-off mass (MTOM) is:



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

- above 2t requires a B1.2 and B2 or B2L licence, or
- 2t and below requires a B1.2 or B3 and B2 or B2L licence.
- The column 'NOTE' in every table includes some useful information, when relevant, e.g.:
  - ELA1 or ELA2 aircraft.
  - 'OSD Approved' or 'Pending OSD Approval' means that an OSD-MCS (operational suitability data for maintenance certifying staff) exists or is still under the approval process at the date of publication of this ED Decision. OSD data is owned by the TCH (see TCHs contact list: <a href="https://www.easa.europa.eu/document-library/operational-suitability-data/osd-contact-list">https://www.easa.europa.eu/document-library/operational-suitability-data/osd-contact-list</a>).

Type training courses approved before the approval of the OSD-MCS shall include the OSD elements within 2 years after the OSD-MCS approval.

- STC reference number.
- 'TC (or STC) not yet released' means that the type certificate (or STC) has not yet been released by EASA at the date of publication of this ED Decision, but the final model configuration is sufficiently mature that the type rating endorsement can be already defined. In this case, the initial training and licensing may start and be used for approval of type training courses and Part-66 licence endorsement. On the contrary, the associated rating for the maintenance organisation can be granted only after the type certification of the aircraft (or after the approval of the STC).



#### **GROUP 1 AEROPLANES**

ED Decision 2019/024/R

		GROUP 1	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
328 Support	Dornier 328-		Dornier 328-100 (PWC PW119)	
Services	100			
328 Support	Dornier 328-		Dornier 328-300 (PWC PW306)	
Services	300			
AIR TRACTOR,	AT-802		Air Tractor AT-800 Series (PWC PT6)	
INC.				
AIR TRACTOR,	AT-802A		Air Tractor AT-800 Series (PWC PT6)	
INC. AIRBUS	A300 B1		Airbus A200 basis model (CF CFC)	
			Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B2-1A		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B2-1C		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B2-202		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B2-203		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B2K-3C		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B4-102		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B4-103		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B4-203		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B4-2C		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 C4-203		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 F4-203		Airbus A300 basic model (GE CF6)	
AIRBUS	A300 B2-320		Airbus A300 basic model (PW JT9D)	
AIRBUS	A300 B4-120		Airbus A300 basic model (PW JT9D)	
AIRBUS	A300 B4-220		Airbus A300 basic model (PW JT9D)	
AIRBUS	A300 B4-601		Airbus A300-600 (GE CF6)	
AIRBUS	A300 B4-603		Airbus A300-600 (GE CF6)	
AIRBUS	A300 B4-605 R		Airbus A300-600 (GE CF6)	
AIRBUS	A300 C4-605 R		Airbus A300-600 (GE CF6)	
	Variant F			
AIRBUS	A300 F4-605 R		Airbus A300-600 (GE CF6)	
AIRBUS	A300 B4-622		Airbus A300-600 (PW 4000)	
AIRBUS	A300 B4-622 R		Airbus A300-600 (PW 4000)	
AIRBUS	A300 F4-622 R		Airbus A300-600 (PW 4000)	
AIRBUS	A300 B4-620		Airbus A300-600 (PW JT9D)	
AIRBUS	A300 C4-620		Airbus A300-600 (PW JT9D)	
AIRBUS	A300F4-608ST	Beluga	Airbus A300-600ST (GE CF6)	
AIRBUS	A310-203		Airbus A310 (GE CF6)	
AIRBUS	A310-203 C		Airbus A310 (GE CF6)	
AIRBUS	A310-204		Airbus A310 (GE CF6)	
AIRBUS	A310-304		Airbus A310 (GE CF6)	
AIRBUS	A310-308		Airbus A310 (GE CF6)	
AIRBUS	A310-324		Airbus A310 (PW 4000)	
AIRBUS	A310-325		Airbus A310 (PW 4000)	
AIRBUS	A310-221		Airbus A310 (PW JT9D)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
AIRBUS	A310-222		Airbus A310 (PW JT9D)	
AIRBUS	A310-322		Airbus A310 (PW JT9D)	
AIRBUS	A318-121		Airbus A318 (PW 6000)	
AIRBUS	A318-122		Airbus A318 (PW 6000)	
AIRBUS	A318-111		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A318-112		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A319-111		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A319-112		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A319-113		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A319-114		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A319-115		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A320-211		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A320-212		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A320-214		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A320-215		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A320-216		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A321-111		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A321-112		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A321-211		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A321-212		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A321-213		Airbus A318/A319/A320/A321 (CFM56)	
AIRBUS	A319-151N	A319 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A319-152N	A319 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	TC not yet released
AIRBUS	A319-153N	A319 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A320-251N	A320 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A320-252N	A320 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
AIRBUS	A320-253N	A320 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A321-251N	A321 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A321-251NX	A321 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A321-252N	A321 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A321-252NX	A321 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A321-253N	A321 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A321-253NX	A321 NEO	Airbus A319/A320/A321 (CFM LEAP- 1A)	
AIRBUS	A319-171N	A319 NEO	Airbus A319/A320/A321 (IAE PW1100G)	TC not yet released
AIRBUS	A319-172N	A319 NEO	Airbus A319/A320/A321 (IAE PW1100G)	TC not yet released
AIRBUS	A319-173N	A319 NEO	Airbus A319/A320/A321 (IAE PW1100G)	TC not yet released
AIRBUS	A320-271N	A320 NEO	Airbus A319/A320/A321 (IAE PW1100G)	
AIRBUS	A320-272N	A320 NEO	Airbus A319/A320/A321 (IAE PW1100G)	
AIRBUS	A320-273N	A320 NEO	Airbus A319/A320/A321 (IAE PW1100G)	
AIRBUS	A321-271N	A321 NEO	Airbus A319/A320/A321 (IAE PW1100G)	
AIRBUS	A321-271NX	A321 NEO	Airbus A319/A320/A321 (IAE PW1100G)	
AIRBUS	A321-272N	A321 NEO	Airbus A319/A320/A321 (IAE PW1100G)	
AIRBUS	A321-272NX	A321 NEO	Airbus A319/A320/A321 (IAE PW1100G)	
AIRBUS	A319-131		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A319-132		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A319-133		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A320-231		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A320-232		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A320-233		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A321-131		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A321-231		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A321-232		Airbus A319/A320/A321 (IAE V2500)	
AIRBUS	A330-201		Airbus A330 (GE CF6)	
AIRBUS	A330-202		Airbus A330 (GE CF6)	
AIRBUS	A330-203		Airbus A330 (GE CF6)	
AIRBUS	A330-301		Airbus A330 (GE CF6)	



		GROUP 1 A	NEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
AIRBUS	A330-302		Airbus A330 (GE CF6)	
AIRBUS	A330-303		Airbus A330 (GE CF6)	
AIRBUS	A330-223		Airbus A330 (PW 4000)	
AIRBUS	A330-223F		Airbus A330 (PW 4000)	
AIRBUS	A330-321		Airbus A330 (PW 4000)	
AIRBUS	A330-322		Airbus A330 (PW 4000)	
AIRBUS	A330-323		Airbus A330 (PW 4000)	
AIRBUS	A330-743L	Beluga XL	Airbus A330 (RR Trent 700)	TC not yet released
AIRBUS	A330-243		Airbus A330 (RR Trent 700)	
AIRBUS	A330-243F		Airbus A330 (RR Trent 700)	
AIRBUS	A330-341		Airbus A330 (RR Trent 700)	
AIRBUS	A330-342		Airbus A330 (RR Trent 700)	
AIRBUS	A330-343		Airbus A330 (RR Trent 700)	
AIRBUS	A330-841	A330 NEO	Airbus A330 (RR Trent 7000)	TC not yet released
AIRBUS	A330-941	A330 NEO	Airbus A330 (RR Trent 7000)	
AIRBUS	A340-211		Airbus A340 (CFM56)	
AIRBUS	A340-212		Airbus A340 (CFM56)	
AIRBUS	A340-213		Airbus A340 (CFM56)	
AIRBUS	A340-311		Airbus A340 (CFM56)	
AIRBUS	A340-312		Airbus A340 (CFM56)	
AIRBUS	A340-313		Airbus A340 (CFM56)	
AIRBUS	A340-541		Airbus A340 (RR Trent 500)	
AIRBUS	A340-542		Airbus A340 (RR Trent 500)	
AIRBUS	A340-642		Airbus A340 (RR Trent 500)	
AIRBUS	A340-643		Airbus A340 (RR Trent 500)	
AIRBUS	A350-1041		Airbus A350 (RR Trent XWB)	
AIRBUS	A350-941		Airbus A350 (RR Trent XWB)	
AIRBUS	A380-861		Airbus A380 (EA GP7200)	
AIRBUS	A380-841		Airbus A380 (RR Trent 900)	
AIRBUS	A380-842		Airbus A380 (RR Trent 900)	
Airbus Canada	BD-500-1A10	A220-100	Bombardier BD-500 Series	
Limited			(PW PW1500G)	
Partnership				
Airbus Canada Limited	BD-500-1A11	A220-300	Bombardier BD-500 Series (PW PW1500G)	
Partnership				
Airbus Military	A400M-180		Airbus A400M (EPI TP400)	
Sociedad Limitada (AMSL)				
Aircraft Industries, a.s.	L410 NG	Turbolet	Let L-410 (GE H80)	
Aircraft Industries, a.s.	L410 UVP-E20	Turbolet	Let L-410 (GE H80)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
Aircraft Industries, a.s.	L410 UVP-E20 CARGO	Turbolet	Let L-410 (GE H80)	
Aircraft Industries, a.s.	L410 M Turbolet	Turbolet	Let L-410 (Walter M601)	
Aircraft Industries, a.s.	L410 UVP - Turbolet	Turbolet	Let L-410 (Walter M601)	
Aircraft Industries, a.s.	L410 UVP-E	Turbolet	Let L-410 (Walter M601)	
Aircraft Industries, a.s.	L410 UVP-E20	Turbolet	Let L-410 (Walter M601)	
Aircraft Industries, a.s.	L410 UVP-E20 CARGO	Turbolet	Let L-410 (Walter M601)	
Aircraft Industries, a.s.	L410 UVP-E9	Turbolet	Let L-410 (Walter M601)	
Aircraft Industries, a.s.	L410 UVP-E- LW	Turbolet	Let L-410 (Walter M601)	
Aircraft Industries, a.s.	L410 UVP-LW	Turbolet	Let L-410 (Walter M601)	
Aircraft Industries, a.s.	L420		Let L-420 (Walter M601)	
ALENIA AERMACCHI	C-27J		Alenia C-27 (Allison/RR AE2100)	
ANTONOV	AN-26		Antonov AN26 (Ivchenko AI-24)	
ANTONOV	AN-26B		Antonov AN26 (Ivchenko AI-24)	
Antonov Aeronautical Scientific and Technical Complex (Aircraft with SAS)	Antonov An-28		Antonov An-28 (ТВД)	Refer to EASA.SAS.A. 091 for s/n applicability.
ASI AVIATION	F 406		Reims-Cessna F 406 (PWC PT6)	
ATR-GIE Avions de Transport Régional	ATR 42-200		ATR 42-200/300 series (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 42-300		ATR 42-200/300 series (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 42-320		ATR 42-200/300 series (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 42-400		ATR 42-400/500/72-212A (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 42-500	42-500 42-600	ATR 42-400/500/72-212A (PWC PW120)	



		GROUP 1 A	EROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
ATR-GIE Avions de Transport Régional	ATR 72-212 A	72-500 72-600	ATR 42-400/500/72-212A (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 72-101		ATR 72-100/200 series (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 72-102		ATR 72-100/200 series (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 72-201		ATR 72-100/200 series (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 72-202		ATR 72-100/200 series (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 72-211		ATR 72-100/200 series (PWC PW120)	
ATR-GIE Avions de Transport Régional	ATR 72-212		ATR 72-100/200 series (PWC PW120)	
BAE SYSTEMS (OPERATIONS) Ltd	АТР		ATP (PWC PW120)	
BAE SYSTEMS (OPERATIONS) Ltd	AVRO 146- RJ100		BAe 146/ AVRO 146-RJ (Honeywell ALF500 Series)	
BAE SYSTEMS (OPERATIONS) Ltd	AVRO 146- RJ115		BAe 146/ AVRO 146-RJ (Honeywell ALF500 Series)	
BAE SYSTEMS (OPERATIONS) Ltd	AVRO 146- RJ70		BAe 146/ AVRO 146-RJ (Honeywell ALF500 Series)	
BAE SYSTEMS (OPERATIONS) Ltd	AVRO 146- RJ85		BAe 146/ AVRO 146-RJ (Honeywell ALF500 Series)	
BAE SYSTEMS (OPERATIONS) Ltd	BAe 146 Series 100		BAe 146/ AVRO 146-RJ (Honeywell ALF500 Series)	
BAE SYSTEMS (OPERATIONS) Ltd	BAe 146 Series 200		BAe 146/ AVRO 146-RJ (Honeywell ALF500 Series)	
BAE SYSTEMS (OPERATIONS) Ltd	BAe 146 Series 300		BAe 146/ AVRO 146-RJ (Honeywell ALF500 Series)	
BAE SYSTEMS (OPERATIONS) Ltd	HS 748 Series 1		HS748 (RRD Dart)	

GROUP 1 AEROPLANES				
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
BAE SYSTEMS (OPERATIONS) Ltd	HS 748 Series 2		HS748 (RRD Dart)	
BAE SYSTEMS (OPERATIONS) Ltd	HS 748 Series 2A		HS748 (RRD Dart)	
BAE SYSTEMS (OPERATIONS) Ltd	HS 748 Series 2B		HS748 (RRD Dart)	
BAE SYSTEMS (OPERATIONS) Ltd	Jetstream 3100 Series	Jetstream 31	Jetstream 31/32 (Honeywell TPE331)	
BAE SYSTEMS (OPERATIONS) Ltd	Jetstream 3200 Series	Jetstream 32/32EP	Jetstream 31/32 (Honeywell TPE331)	
BAE SYSTEMS (OPERATIONS) Ltd	Jetstream 4100 Series		Jetstream 41 (Honeywell TPE331)	
BEECHCRAFT Corporation	200		Beech 200 Series (PWC PT6)	
BEECHCRAFT Corporation	300LW	Super King Air	Beech 300 Series (PWC PT6)	
BEECHCRAFT Corporation	F90	King Air	Beech 90 Series (PWC PT6)	
BEECHCRAFT Corporation	A99	Airliner	Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	A99A	Airliner	Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	В99	Airliner	Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	C99	Airliner	Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	100	King Air	Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	A100	King Air	Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	A100A	King Air	Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	99		Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	99A		Beech 99/100 Series (PWC PT6)	
BEECHCRAFT Corporation	B100		Beech B100 (Honeywell TPE331)	
BERIEV Aircraft Company	Be-200ES-E		Beriev 200 (Ivchenko D-436TP)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
B-N GROUP Ltd. (Britten- Norman)	BN2T	Turbine Islander	Britten-Norman BN2T Series (RR Corp 250)	
B-N GROUP Ltd. (Britten- Norman)	BN2T-2	Turbine Islander	Britten-Norman BN2T Series (RR Corp 250)	
B-N GROUP Ltd. (Britten- Norman)	BN2T-2R	Turbine Islander	Britten-Norman BN2T Series (RR Corp 250)	
B-N GROUP Ltd. (Britten- Norman)	BN2T-4R	Turbine Islander	Britten-Norman BN2T Series (RR Corp 250)	
B-N GROUP Ltd. (Britten- Norman)	BN2T-4S	Turbine Islander	Britten-Norman BN2T Series (RR Corp 250)	
BOEING COMPANY (THE)	707-200	B707	Boeing 707 (PW JT4)	
BOEING COMPANY (THE)	707-300 Series	B707	Boeing 707 (PW JT4)	
BOEING COMPANY (THE)	707-400	B707	Boeing 707 (RR Conway)	
BOEING COMPANY (THE)	720	B707	Boeing 707/720 (PW JT3D)	
BOEING COMPANY (THE)	707-100 Long Body	B707	Boeing 707/720 (PW JT3D)	
BOEING COMPANY (THE)	707-100B Long Body	B707	Boeing 707/720 (PW JT3D)	
BOEING COMPANY (THE)	707-100B Short Body	B707	Boeing 707/720 (PW JT3D)	
BOEING COMPANY (THE)	707-300	B707	Boeing 707/720 (PW JT3D)	
BOEING COMPANY (THE)	707-300C	B707	Boeing 707/720 (PW JT3D)	
BOEING COMPANY (THE)	720B	B707	Boeing 707/720 (PW JT3D)	
BOEING COMPANY (THE)	727	B727	Boeing 727 (PW JT8D)	
BOEING COMPANY (THE)	727-100	B727	Boeing 727 (PW JT8D)	
BOEING COMPANY (THE)	727-100C	B727	Boeing 727 (PW JT8D)	
BOEING COMPANY (THE)	727-200	B727	Boeing 727 (PW JT8D)	
BOEING COMPANY (THE)	727-200F	B727	Boeing 727 (PW JT8D)	
BOEING COMPANY (THE)	727C	B727	Boeing 727 (PW JT8D)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
BOEING COMPANY (THE)	737-100	B737 Classic	Boeing 737-100/200 (PW JT8D)	
BOEING COMPANY (THE)	737-200	B737 Classic	Boeing 737-100/200 (PW JT8D)	
BOEING COMPANY (THE)	737-200C	B737 Classic	Boeing 737-100/200 (PW JT8D)	
BOEING COMPANY (THE)	737-300	B737 Classic	Boeing 737-300/400/500 (CFM56)	
BOEING COMPANY (THE)	737-400	B737 Classic	Boeing 737-300/400/500 (CFM56)	
BOEING COMPANY (THE)	737-500	B737 Classic	Boeing 737-300/400/500 (CFM56)	
BOEING COMPANY (THE)	737-600	B737 Next Generation	Boeing 737-600/700/800/900 (CFM56)	
BOEING COMPANY (THE)	737-700	B737 Next Generation	Boeing 737-600/700/800/900 (CFM56)	
BOEING COMPANY (THE)	737-800	B737 Next Generation	Boeing 737-600/700/800/900 (CFM56)	
BOEING COMPANY (THE)	737-900	B737 Next Generation	Boeing 737-600/700/800/900 (CFM56)	
BOEING COMPANY (THE)	737-900ER	B737 Next Generation	Boeing 737-600/700/800/900 (CFM56)	
BOEING COMPANY (THE)	737-7	B737 MAX	Boeing 737-7/8/9 (CFM LEAP-1B)	TC not yet released
BOEING COMPANY (THE)	737-8	B737 MAX	Boeing 737-7/8/9 (CFM LEAP-1B)	
BOEING COMPANY (THE)	737-8200	B737 MAX	Boeing 737-7/8/9 (CFM LEAP-1B)	TC not yet released
BOEING COMPANY (THE)	737-9	B737 MAX	Boeing 737-7/8/9 (CFM LEAP-1B)	
BOEING COMPANY (THE)	747-100	B747	Boeing 747-100 (PW JT9D)	
BOEING COMPANY (THE)	747-200	B747	Boeing 747-200/300 (GE CF6)	
BOEING COMPANY (THE)	747-200C	B747	Boeing 747-200/300 (GE CF6)	
BOEING COMPANY (THE)	747-200F	B747	Boeing 747-200/300 (GE CF6)	
BOEING COMPANY (THE)	747-300	B747	Boeing 747-200/300 (GE CF6)	
BOEING COMPANY (THE)	747-200	B747	Boeing 747-200/300 (PW JT9D)	
BOEING COMPANY (THE)	747-200C	B747	Boeing 747-200/300 (PW JT9D)	
BOEING COMPANY (THE)	747-200F	B747	Boeing 747-200/300 (PW JT9D)	
BOEING COMPANY (THE)	747-300	B747	Boeing 747-200/300 (PW JT9D)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
BOEING COMPANY (THE)	747-200	B747	Boeing 747-200/300 (RR RB211)	
BOEING COMPANY (THE)	747-200C	B747	Boeing 747-200/300 (RR RB211)	
BOEING COMPANY (THE)	747-200F	B747	Boeing 747-200/300 (RR RB211)	
BOEING COMPANY (THE)	747-300	B747	Boeing 747-200/300 (RR RB211)	
BOEING COMPANY (THE)	747-400	B747	Boeing 747-400 (GE CF6)	
BOEING COMPANY (THE)	747-400F	B747	Boeing 747-400 (GE CF6)	
BOEING COMPANY (THE)	747-400BCF	B747F/SF	Boeing 747-400 (GE CF6)	
BOEING COMPANY (THE)	747-400	B747	Boeing 747-400 (PW 4000)	
BOEING COMPANY (THE)	747-400F	B747	Boeing 747-400 (PW 4000)	
BOEING COMPANY (THE)	747-400CF	B747F/SF	Boeing 747-400 (PW 4000)	
BOEING COMPANY (THE)	747-400	B747	Boeing 747-400 (RR RB211)	
BOEING COMPANY (THE)	747-400F	B747	Boeing 747-400 (RR RB211)	
BOEING COMPANY (THE)	747-400CF	B747F/SF	Boeing 747-400 (RR RB211)	
BOEING COMPANY (THE)	747-8	B747	Boeing 747-8 (GE GEnx)	
BOEING COMPANY (THE)	747-8F	Freighter	Boeing 747-8 (GE GEnx)	
BOEING COMPANY (THE)	747SP		Boeing 747SP (PW JT9D)	
BOEING COMPANY (THE)	757-200	B757	Boeing 757-200/300 (PW 2000)	
BOEING COMPANY (THE)	757-200PF	B757	Boeing 757-200/300 (PW 2000)	
BOEING COMPANY (THE)	757-300	B757	Boeing 757-200/300 (PW 2000)	
BOEING COMPANY (THE)	757-200	B757	Boeing 757-200/300 (RR RB211)	
BOEING COMPANY (THE)	757-200PF	B757	Boeing 757-200/300 (RR RB211)	
BOEING COMPANY (THE)	757-300	B757	Boeing 757-200/300 (RR RB211)	
BOEING COMPANY (THE)	767-200	B767	Boeing 767-200/300 (PW 4000)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
BOEING COMPANY (THE)	767-300	B767	Boeing 767-200/300 (PW 4000)	
BOEING COMPANY (THE)	767-300CF	B767	Boeing 767-200/300 (PW 4000)	
BOEING COMPANY (THE)	767-200	B767	Boeing 767-200/300 (PW JT9D)	
BOEING COMPANY (THE)	767-300	B767	Boeing 767-200/300 (PW JT9D)	
BOEING COMPANY (THE)	767-300CF	B767	Boeing 767-200/300 (PW JT9D)	
BOEING COMPANY (THE)	767-200	B767	Boeing 767-200/300/400 (GE CF6)	
BOEING COMPANY (THE)	767-300	B767	Boeing 767-200/300/400 (GE CF6)	
BOEING COMPANY (THE)	767-300CF	B767	Boeing 767-200/300/400 (GE CF6)	
BOEING COMPANY (THE)	767-300F	B767	Boeing 767-200/300/400 (GE CF6)	
BOEING COMPANY (THE)	767-400ER	B767	Boeing 767-200/300/400 (GE CF6)	
BOEING COMPANY (THE)	767-300	B767	Boeing 767-300 (RR RB211)	
BOEING COMPANY (THE)	777-200	B777	Boeing 777-200/300 (GE 90)	
BOEING COMPANY (THE)	777-200LR	B777	Boeing 777-200/300 (GE 90)	
BOEING COMPANY (THE)	777-300ER	B777	Boeing 777-200/300 (GE 90)	
BOEING COMPANY (THE)	777F	Freighter	Boeing 777-200/300 (GE 90)	
BOEING COMPANY (THE)	777-200	B777	Boeing 777-200/300 (PW 4000)	
BOEING COMPANY (THE)	777-300	B777	Boeing 777-200/300 (PW 4000)	
BOEING COMPANY (THE)	777-200	B777	Boeing 777-200/300 (RR Trent 800)	
BOEING COMPANY (THE)	777-300	B777	Boeing 777-200/300 (RR Trent 800)	
BOEING COMPANY (THE)	787-10	Dreamliner	Boeing 787-8/9/10 (GEnx)	
BOEING COMPANY (THE)	787-8	Dreamliner	Boeing 787-8/9/10 (GEnx)	
BOEING COMPANY (THE)	787-9	Dreamliner	Boeing 787-8/9/10 (GEnx)	
BOEING COMPANY (THE)	787-10	Dreamliner	Boeing 787-8/9/10 (RR Trent 1000)	
BOEING COMPANY (THE)	787-8	Dreamliner	Boeing 787-8/9/10 (RR Trent 1000)	



		GROUP 1 A	GROUP 1 AEROPLANES			
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note		
BOEING COMPANY (THE)	787-9	Dreamliner	Boeing 787-8/9/10 (RR Trent 1000)			
BOMBARDIER	BD-100-1A10	Challenger 300 Challenger 350	Bombardier BD-100-1A10 (Honeywell AS907)			
BOMBARDIER	BD-700-1A11	Global 5000 Global 5000 GVFD Global 5500	Bombardier BD-700 Series (RRD BR700-710)			
BOMBARDIER	BD-700-1A10	Global Express Global 6000 Global 6500	Bombardier BD-700 Series (RRD BR700-710)			
BOMBARDIER	BD-700-2A12	Global 7500	Bombardier BD-700 2A12 (GE Passport 20)			
BOMBARDIER	CL-600-1A11 (600)	Challenger 600	Bombardier CL-600-1A11 (Honeywell ALF502)			
BOMBARDIER	CL-600-2A12 (601 Variant)	Challenger 601	Bombardier CL-600-2A12/2B16 (601/601-3A/3R Variant) (GE CF34)			
BOMBARDIER	CL-600-2B16 (601-3A Variant)	Challenger 601-3A	Bombardier CL-600-2A12/2B16 (601/601-3A/3R Variant) (GE CF34)			
BOMBARDIER	CL-600-2B16 (601-3R Variant)	Challenger 601-3R	Bombardier CL-600-2A12/2B16 (601/601-3A/3R Variant) (GE CF34)			
BOMBARDIER	CL-600-2B16 (604 Variant)	Challenger 604 (MSN < 5701) Challenger 605 (5701<=MSN <= 5990) Challenger 650 (MSN ≥ 6050)	Bombardier CL-600-2B16 (604 Variant) (GE CF34)			
BOMBARDIER	CL-600-2B19 (RJ Series 100)	Regional Jet Series 100/200/440/ Challenger 850/ CRJ SE	Bombardier CL-600-2B19 (GE CF34)			
BOMBARDIER	CL-600-2E25 (RJ Series 1000)	Regional Jet Series 1000	Bombardier CL-600- 2C10/2D15/2D24/2E25 (GE CF34)			
BOMBARDIER	CL-600-2C10 (RJ 700/701/ 702)	Regional Jet Series 700/701/702	Bombardier CL-600- 2C10/2D15/2D24/2E25 (GE CF34)			
BOMBARDIER	CL-600-2D15 (RJ Series 705)	Regional Jet Series 705	Bombardier CL-600- 2C10/2D15/2D24/2E25 (GE CF34)			
BOMBARDIER	CL-600-2D24 (RJ Series 900)	Regional Jet Series 900	Bombardier CL-600- 2C10/2D15/2D24/2E25 (GE CF34)			
BOMBARDIER	DHC-8-102	DHC-8 Series 100	Bombardier DHC-8-100/200/300 (PWC PW 120)			
BOMBARDIER	DHC-8-103	DHC-8 Series 100	Bombardier DHC-8-100/200/300 (PWC PW 120)			



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
BOMBARDIER	DHC-8-106	DHC-8 Series 100	Bombardier DHC-8-100/200/300 (PWC PW 120)	
BOMBARDIER	DHC-8-201	DHC-8 Series 200	Bombardier DHC-8-100/200/300 (PWC PW 120)	
BOMBARDIER	DHC-8-202	DHC-8 Series 200	Bombardier DHC-8-100/200/300 (PWC PW 120)	
BOMBARDIER	DHC-8-301	DHC-8 Series 300	Bombardier DHC-8-100/200/300 (PWC PW 120)	
BOMBARDIER	DHC-8-311	DHC-8 Series 300	Bombardier DHC-8-100/200/300 (PWC PW 120)	
BOMBARDIER	DHC-8-314	DHC-8 Series 300	Bombardier DHC-8-100/200/300 (PWC PW 120)	
BOMBARDIER	DHC-8-315	DHC-8 Series 300	Bombardier DHC-8-100/200/300 (PWC PW 120)	
BOMBARDIER	DHC-8-401	DHC-8 Series 400	Bombardier DHC-8-400 (PWC PW150)	
BOMBARDIER	DHC-8-402	DHC-8 Series 400	Bombardier DHC-8-400 (PWC PW150)	
BOMBARDIER	CL-215-1A10		Canadair CL-215 (PW R2800)	
BOMBARDIER	CL-215-6B11 (CL-215T Variant)		Canadair CL-215 (PWC PW120)	
BOMBARDIER	CL-215-6B11 (CL-415 Variant)		Canadair CL-415 (PWC PW123)	
CIRRUS Design Corporation	SF50		CIRRUS SF50 (Williams FJ33)	
DAHER AEROSPACE	TBM700 A		Socata TBM700 (PWC PT6)	
DAHER AEROSPACE	ТВМ700 В		Socata TBM700 (PWC PT6)	
DAHER AEROSPACE	TBM700 C1		Socata TBM700 (PWC PT6)	
DAHER AEROSPACE	TBM700 C2		Socata TBM700 (PWC PT6)	
DAHER AEROSPACE	TBM700 N		Socata TBM700 (PWC PT6)	
DASSAULT AVIATION	Falcon 10		Falcon 10 (Honeywell TFE731)	
DASSAULT AVIATION	Fan Jet Falcon	(Basic) Fan Jet Falcon	Falcon 20 (GE CF700)	
DASSAULT AVIATION	Fan Jet Falcon C		Falcon 20 (GE CF700)	
DASSAULT AVIATION	Fan Jet Falcon D		Falcon 20 (GE CF700)	
DASSAULT AVIATION	Fan Jet Falcon E		Falcon 20 (GE CF700)	

		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
DASSAULT AVIATION	Fan Jet Falcon F		Falcon 20 (GE CF700)	
DASSAULT AVIATION	Fan Jet Falcon G		Falcon 200 (Honeywell ATF 3-6)	
DASSAULT AVIATION	Mystère Falcon 200		Falcon 200 (Honeywell ATF 3-6)	
DASSAULT AVIATION	Mystère Falcon 20GF		Falcon 200 (Honeywell ATF 3-6)	
DASSAULT AVIATION	Falcon 2000		Falcon 2000 (CFE 738)	
DASSAULT AVIATION	Falcon 2000EX		Falcon 2000EX (PWC PW308)	OSD approved on 30.10.2015.
DASSAULT AVIATION	Falcon 2000EX	F2000EX EASY F2000DX F2000LX F2000LXS F2000S	Falcon 2000EX EASy (PWC PW308C)	OSD approved on 30.10.2015.
DASSAULT AVIATION	Mystère Falcon 20-C5		Falcon 20-5 (Honeywell TFE731)	
DASSAULT AVIATION	Mystère Falcon 20-D5		Falcon 20-5 (Honeywell TFE731)	
DASSAULT AVIATION	Mystère Falcon 20-E5		Falcon 20-5 (Honeywell TFE731)	
DASSAULT AVIATION	Mystère Falcon 20-F5		Falcon 20-5 (Honeywell TFE731)	
DASSAULT AVIATION	Mystère Falcon 50		Falcon 50 (Honeywell TFE731)	
DASSAULT AVIATION	Mystère Falcon 50	F50EX	Falcon 50EX (Honeywell TFE731)	
DASSAULT AVIATION	Falcon 7X	Falcon 7X Falcon 8X	Falcon 7X (PW307)	OSD approved on 30.6.2016.
DASSAULT AVIATION	Mystère Falcon 900	Falcon 900 Falcon 900B	Falcon 900 (Honeywell TFE731)	
DASSAULT AVIATION	Mystère Falcon 900	F900C	Falcon 900C/EX (Honeywell TFE 731)	
DASSAULT AVIATION	Falcon 900EX		Falcon 900C/EX (Honeywell TFE 731)	
DASSAULT AVIATION	Falcon 900EX	F900EX EASy F900DX F900LX	Falcon 900EX EASy (Honeywell TFE731)	
DORNIER SEAWINGS GmbH	Seastar CD2		Dornier Seastar CD2 (PWC PT6)	
EADS CASA	C-212-CB	Aviocar	CASA C-212 (Honeywell TPE331)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
EADS CASA	C-212-CC	Aviocar	CASA C-212 (Honeywell TPE331)	
EADS CASA	C-212-CD	Aviocar	CASA C-212 (Honeywell TPE331)	
EADS CASA	C-212-CE	Aviocar	CASA C-212 (Honeywell TPE331)	
EADS CASA	C-212-CF	Aviocar	CASA C-212 (Honeywell TPE331)	
EADS CASA	C-212-DD	Aviocar	CASA C-212 (Honeywell TPE331)	
EADS CASA	C-212-DF	Aviocar	CASA C-212 (Honeywell TPE331)	
EADS CASA	C-212-EE	Aviocar	CASA C-212 (Honeywell TPE331)	
EADS CASA	C-212-VA	Aviocar	CASA C-212 (Honeywell TPE331)	
EADS CASA	C-212-DE	Aviocar	CASA C-212 (PWC PT6)	
EADS CASA	C-295		CASA C-295 (PWC PW127)	
EADS CASA	CN-235		CASA CN-235 (GE CT7)	
EADS CASA	CN-235-100		CASA CN-235 (GE CT7)	
EADS CASA	CN-235-200		CASA CN-235 (GE CT7)	
EADS CASA	CN-235-300		CASA CN-235 (GE CT7)	
ECLIPSE	EA500		Eclipse EA500 (PWC PW610)	
AEROSPACE Inc.				
EMBRAER S.A.	EMB-110K1	Bandeirante	Embraer EMB-110 (PWC PT6)	
EMBRAER S.A.	EMB-110P1	Bandeirante	Embraer EMB-110 (PWC PT6)	
EMBRAER S.A.	EMB-110P2	Bandeirante	Embraer EMB-110 (PWC PT6)	
EMBRAER S.A.	EMB-120	Brasilia	Embraer EMB-120 (PWC PW110 Series)	
EMBRAER S.A.	EMB-120ER	Brasilia	Embraer EMB-120 (PWC PW110 Series)	
EMBRAER S.A.	EMB-120RT	Brasilia	Embraer EMB-120 (PWC PW110 Series)	
EMBRAER S.A.	EMB-121A	Xingu I	Embraer EMB-121 (PWC PT6)	
EMBRAER S.A.	EMB-121A1	Xingu II	Embraer EMB-121 (PWC PT6)	
EMBRAER S.A.	EMB-135BJ	Legacy 600 Legacy 650	Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-135ER		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-135LR		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-145		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-145EP		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-145ER		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-145EU		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-145LR		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-145LU		Embraer EMB-135/145 (RR Corp AE3007A)	



		GROUP 1 A	EROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
EMBRAER S.A.	EMB-145MK		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-145MP		Embraer EMB-135/145 (RR Corp AE3007A)	
EMBRAER S.A.	EMB-500	Phenom 100	Embraer EMB-500 (PWC PW617)	
EMBRAER S.A.	EMB-505	Phenom 300	Embraer EMB-505 (PWC PW535)	
EMBRAER S.A.	EMB-545	Legacy 450	Embraer EMB-545/550 (Honeywell AS907)	
EMBRAER S.A.	EMB-550	Legacy 500	Embraer EMB-545/550 (Honeywell AS907)	
EMBRAER S.A.	ERJ 170-100 LR	ERJ-170	Embraer ERJ-170 Series (GE CF34)	
EMBRAER S.A.	ERJ 170-100 STD	ERJ-170	Embraer ERJ-170 Series (GE CF34)	
EMBRAER S.A.	ERJ 170-200 LR	ERJ-175	Embraer ERJ-170 Series (GE CF34)	
EMBRAER S.A.	ERJ 170-200 STD	ERJ-175	Embraer ERJ-170 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-100 LR	ERJ-190	Embraer ERJ-190 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-100 SR	ERJ-190	Embraer ERJ-190 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-100 STD	ERJ-190	Embraer ERJ-190 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-100 IGW	ERJ-190 AR	Embraer ERJ-190 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-200 LR	ERJ-195	Embraer ERJ-190 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-200 STD	ERJ-195	Embraer ERJ-190 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-200 IGW	ERJ-195 AR	Embraer ERJ-190 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-100 ECJ	Lineage 1000	Embraer ERJ-190 Series (GE CF34)	
EMBRAER S.A.	ERJ 190-300	EMBRAER 190E2	Embraer ERJ-190 Series (PW 1900G)	
EMBRAER S.A.	ERJ 190-400	EMBRAER 195-E2	Embraer ERJ-190 Series (PW 1900G)	
FOKKER SERVICES	F27 Mark 050	Fokker 50	Fokker 50/60 Series (PWC PW 125/127)	
FOKKER SERVICES	F27 Mark 0502	Fokker 50	Fokker 50/60 Series (PWC PW 125/127)	
FOKKER SERVICES	F27 Mark 0604	Fokker 60	Fokker 50/60 Series (PWC PW 125/127)	
FOKKER SERVICES	F28 Mark 0100	Fokker 100	Fokker 70/100 (RRD Tay)	
FOKKER SERVICES	F28 Mark 0070	Fokker 70	Fokker 70/100 (RRD Tay)	
FOKKER SERVICES	F27 Mark 100	Friendship	Fokker F27 / Fairchild F-27/FH-227 Series (RRD Dart)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
FOKKER SERVICES	F27 Mark 200	Friendship	Fokker F27 / Fairchild F-27/FH-227 Series (RRD Dart)	
FOKKER SERVICES	F27 Mark 300	Friendship	Fokker F27 / Fairchild F-27/FH-227 Series (RRD Dart)	
FOKKER SERVICES	F27 Mark 400	Friendship	Fokker F27 / Fairchild F-27/FH-227 Series (RRD Dart)	
FOKKER SERVICES	F27 Mark 500	Friendship	Fokker F27 / Fairchild F-27/FH-227 Series (RRD Dart)	
FOKKER SERVICES	F27 Mark 600	Friendship	Fokker F27 / Fairchild F-27/FH-227 Series (RRD Dart)	
FOKKER SERVICES	F27 Mark 700	Friendship	Fokker F27 / Fairchild F-27/FH-227 Series (RRD Dart)	
FOKKER SERVICES	F28 Mark 1000	Fellowship	Fokker F28 Series (RRD Spey)	
FOKKER SERVICES	F28 Mark 1000C	Fellowship	Fokker F28 Series (RRD Spey)	
FOKKER SERVICES	F28 Mark 2000	Fellowship	Fokker F28 Series (RRD Spey)	
FOKKER SERVICES	F28 Mark 3000	Fellowship	Fokker F28 Series (RRD Spey)	
FOKKER SERVICES	F28 Mark 3000C	Fellowship	Fokker F28 Series (RRD Spey)	
FOKKER SERVICES	F28 Mark 3000R	Fellowship	Fokker F28 Series (RRD Spey)	
FOKKER SERVICES	F28 Mark 3000RC	Fellowship	Fokker F28 Series (RRD Spey)	
FOKKER SERVICES	F28 Mark 4000	Fellowship	Fokker F28 Series (RRD Spey)	
GROB Aircraft AG	G520 EGRETT		Grob G 520 Series (Honeywell TPE331)	
GROB Aircraft AG	G520T		Grob G 520 Series (Honeywell TPE331)	
GULFSTREAM AEROSPACE Corporation	G-1159	Gulfstream II	Gulfstream G-1159 Series (RRD Spey)	
GULFSTREAM AEROSPACE Corporation	G-1159A	Gulfstream IIB	Gulfstream G-1159 Series (RRD Spey)	
GULFSTREAM AEROSPACE Corporation	G-1159B	Gulfstream III	Gulfstream G-1159 Series (RRD Spey)	
GULFSTREAM AEROSPACE Corporation	G-159	Gulfstream I	Gulfstream G-159 (RRD Dart)	
GULFSTREAM AEROSPACE Corporation	G-IV	Gulfstream G-IV/GIV-SP	Gulfstream GIV/GIV-SP Series (RRD Tay)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
GULFSTREAM AEROSPACE Corporation	GIV-X	Gulfstream G350 Gulfstream G450	Gulfstream GIV-X Series (RRD Tay)	
GULFSTREAM AEROSPACE Corporation	GV	Gulfstream GV	Gulfstream GV basic model (RRD BR710)	
GULFSTREAM AEROSPACE Corporation	GVI (G650)	G650 G650ER	Gulfstream GVI (RRD BR725)	
GULFSTREAM AEROSPACE Corporation	GVII-G500		Gulfstream GVII (PWC PW800GA)	OSD mandatory.
GULFSTREAM AEROSPACE Corporation	GVII-G600		Gulfstream GVII (PWC PW800GA)	Not yet certified. OSD mandatory.
GULFSTREAM AEROSPACE Corporation	GV-SP	Gulfstream G500 Gulfstream G550	Gulfstream GV-SP Series (RRD BR710)	
GULFSTREAM AEROSPACE LP (GALP)	1125 Westwind Astra	Astra	Gulfstream (IAI) 100/1125/Astra SPX (Honeywell TFE731)	
GULFSTREAM AEROSPACE LP (GALP)	Gulfstream 100/Astra SPX	G100/Astra SPX	Gulfstream (IAI) 100/1125/Astra SPX (Honeywell TFE731)	
GULFSTREAM AEROSPACE LP (GALP)	1125 Astra SP		Gulfstream (IAI) 100/1125/Astra SPX (Honeywell TFE731)	
GULFSTREAM AEROSPACE LP (GALP)	Gulfstream 200/Galaxy	G200/Galaxy	Gulfstream (IAI) 200/Galaxy (PWC PW306)	
GULFSTREAM AEROSPACE LP (GALP)	Gulfstream G150	G150	Gulfstream (IAI) G150 (Honeywell TFE731)	
GULFSTREAM AEROSPACE LP (GALP)	Gulfstream G280	G280	Gulfstream (IAI) G280 (Honeywell AS907)	
HAWKER BEECHCRAFT	BAe.125 Series 800A	BAe.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	BAe.125 Series 800B	BAe.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	BH.125 Series 400A	BH.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	BH.125 Series 600A	BH.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	DH.125 Series 1A	DH.125	BAe 125 Series (Honeywell TFE731)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
HAWKER BEECHCRAFT	DH.125 Series 3A	DH.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	DH.125 Series 3A/RA	DH.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	DH.125 Series 400A	DH.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 Series 400A	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 Series 600A	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 Series 700A	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 Series 700B	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 Series F3B	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 series F3B/RA	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 Series F400B	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 Series F403B	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 series F600B	HS.125	BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	Hawker 800		BAe 125 Series (Honeywell TFE731)	
HAWKER BEECHCRAFT	HS.125 series F400	'Hawker Siddeley'	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 series F600	'Hawker Siddeley'	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	BH.125 Series 400A	BH.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	BH.125 Series 600A	BH.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	DH.125 Series 1A	DH.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	DH.125 Series 1A/R-522	DH.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	DH.125 Series 1A/S-522	DH.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	DH.125 Series 1A-522	DH.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	DH.125 Series 3A/R	DH.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	DH.125 Series 400A	DH.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 1B	HS.125	BAe 125 Series (RR Viper)	



		GROUP 1 A	<b>NEROPLANES</b>	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
HAWKER BEECHCRAFT	HS.125 Series 1B/R-522	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 1B/S-522	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 1B-522	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 3B	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 3B/R	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 3B/RA	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 3B/RB	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 3B/RC	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 400A	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 400B	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 400B/1	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 401B	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 403A(C)	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 403B	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 600A	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 600B	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 600B/1	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 600B/2	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	HS.125 Series 600B/3	HS.125	BAe 125 Series (RR Viper)	
HAWKER BEECHCRAFT	BAe.125 Series 1000A	BAe.125	BAe 125 Series 1000 (PWC PW305)	
HAWKER BEECHCRAFT	BAe.125 Series 1000B	BAe.125	BAe 125 Series 1000 (PWC PW305)	
HAWKER BEECHCRAFT	Hawker 1000		BAe 125 Series 1000 (PWC PW305)	
HAWKER BEECHCRAFT	Hawker 750	Hawker 750	BAe 125 Series 750/800XP/850XP/900XP (Honeywell TFE731)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
HAWKER BEECHCRAFT	Hawker 800XP	Hawker 800XP	BAe 125 Series 750/800XP/850XP/900XP (Honeywell TFE731)	
HAWKER BEECHCRAFT	Hawker 850XP	Hawker 850XP	BAe 125 Series 750/800XP/850XP/900XP (Honeywell TFE731)	
HAWKER BEECHCRAFT	Hawker 900XP	Hawker 900XP	BAe 125 Series 750/800XP/850XP/900XP (Honeywell TFE731)	
HAWKER BEECHCRAFT	400T	(TX) Beechjet	Beech 400/Mitsubishi MU-300 (PWC JT15)	
HAWKER BEECHCRAFT	400	Beechjet	Beech 400/Mitsubishi MU-300 (PWC JT15)	
HAWKER BEECHCRAFT	400A	Beechjet (Hawker 400XP)	Beech 400/Mitsubishi MU-300 (PWC JT15)	
HAWKER BEECHCRAFT	MU-300 (Diamond I)	Diamond I Diamond IA	Beech 400/Mitsubishi MU-300 (PWC JT15)	
HAWKER BEECHCRAFT	MU-300-10 (Diamond II)	Diamond II	Beech 400/Mitsubishi MU-300 (PWC JT15)	
HONDA AIRCRAFT COMPANY LLC.	HA-420	HondaJet	Honda Aircraft HA-420 (HF120)	
ISRAEL AIRCRAFT INDUSTRIES	IAI 1123	Commodore Jet	IAI 1121/1123 (GE CJ610)	
ISRAEL AIRCRAFT INDUSTRIES	IAI 1121	Jetcommander	IAI 1121/1123 (GE CJ610)	
ISRAEL AIRCRAFT INDUSTRIES	IAI 1121A	Jetcommander	IAI 1121/1123 (GE CJ610)	
ISRAEL AIRCRAFT INDUSTRIES	IAI 1121B	Jetcommander	IAI 1121/1123 (GE CJ610)	
ISRAEL AIRCRAFT INDUSTRIES	IAI 1124	Westwind	IAI 1124 (Honeywell TFE731)	
ISRAEL AIRCRAFT INDUSTRIES	IAI 1124A	Westwind	IAI 1124 (Honeywell TFE731)	
JSC Sukhoi Civil Aircraft	RRJ-95B	Superjet 100	RRJ-95 (PowerJet SaM146)	
LEARJET	23 (Learjet)		Learjet 23 (GE CJ610)	
LEARJET	24		Learjet 24/25 (GE CJ610)	
LEARJET	25		Learjet 24/25 (GE CJ610)	
LEARJET	24A		Learjet 24/25 (GE CJ610)	
LEARJET	24B		Learjet 24/25 (GE CJ610)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
LEARJET	24B-A		Learjet 24/25 (GE CJ610)	
LEARJET	24D		Learjet 24/25 (GE CJ610)	
LEARJET	24D-A		Learjet 24/25 (GE CJ610)	
LEARJET	24F		Learjet 24/25 (GE CJ610)	
LEARJET	24F-A		Learjet 24/25 (GE CJ610)	
LEARJET	25B		Learjet 24/25 (GE CJ610)	
LEARJET	25C		Learjet 24/25 (GE CJ610)	
LEARJET	25D		Learjet 24/25 (GE CJ610)	
LEARJET	25F		Learjet 24/25 (GE CJ610)	
LEARJET	31		Learjet 31 (Honeywell TFE731)	
LEARJET	31A		Learjet 31 (Honeywell TFE731)	
LEARJET	35		Learjet 35/36 (Honeywell TFE731)	
LEARJET	36		Learjet 35/36 (Honeywell TFE731)	
LEARJET	35A		Learjet 35/36 (Honeywell TFE731)	
LEARJET	36A		Learjet 35/36 (Honeywell TFE731)	
LEARJET	Learjet Model	Learjet 45	Learjet 45 (Honeywell TFE731)	
LEANJET	45	Learjet 40 Learjet 75 Learjet 70	Learjet 43 (Holleywell TFE731)	
LEARJET	55		Learjet 55 (Honeywell TFE731)	
LEARJET	55B		Learjet 55 (Honeywell TFE731)	
LEARJET	55C		Learjet 55 (Honeywell TFE731)	
LEARJET	60	Learjet 60	Learjet 60 (PWC PW305)	
LOCKHEED	1329-25	JetStar II	Lockheed 1329 (Honeywell TFE731)	
MARTIN				
Corporation	4000 000	1 .0.		
LOCKHEED MARTIN	1329-23D	JetStar	Lockheed 1329 PW (PW JT12)	
Corporation				
LOCKHEED	188A	Electra	Lockheed 188 (RR Corp 501)	
MARTIN	200/1	2.000.0		
Corporation				
LOCKHEED	188C	Electra	Lockheed 188 (RR Corp 501)	
MARTIN				
Corporation				
LOCKHEED MARTIN	382G	Hercules	Lockheed 382 (RR Corp 501)	
Corporation				
LOCKHEED	L-1011-385-1	TriStar	Lockheed L-1011 (RR RB211)	
MARTIN	L 1011 303-1	Maria	LOCALICE LIVIT (III NOZII)	
Corporation				
LOCKHEED	L-1011-385-1-	TriStar	Lockheed L-1011 (RR RB211)	
MARTIN	15			
Corporation				
LOCKHEED	L-1011-385-3	TriStar	Lockheed L-1011 (RR RB211)	
MARTIN				
Corporation				



	GROUP 1 AEROPLANES			
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
M7 AEROSPACE	SA226-AT		Fairchild SA226 Series (Honeywell TPE331)	
M7 AEROSPACE	SA226-T		Fairchild SA226 Series (Honeywell TPE331)	
M7 AEROSPACE	SA226-T(B)		Fairchild SA226 Series (Honeywell TPE331)	
M7 AEROSPACE	SA226-TC		Fairchild SA226 Series (Honeywell TPE331)	
M7 AEROSPACE	SA227-AC	Swearingen Metro	Fairchild SA227 Series (Honeywell TPE331)	
M7 AEROSPACE	SA227-BC	Swearingen Metro	Fairchild SA227 Series (Honeywell TPE331)	
M7 AEROSPACE	SA227-AT		Fairchild SA227 Series (Honeywell TPE331)	
M7 AEROSPACE	SA227-CC		Fairchild SA227 Series (Honeywell TPE331)	
M7 AEROSPACE	SA227-DC		Fairchild SA227 Series (Honeywell TPE331)	
M7 AEROSPACE	SA227-TT		Fairchild SA227 Series (Honeywell TPE331)	
M7 AEROSPACE	SA227-PC	Swearingen Metro	Fairchild SA227 Series (PWC PT6)	
M7 AEROSPACE	SA26AT		Fairchild SA26AT (Honeywell TPE331)	
M7 AEROSPACE	SA-26-T		Fairchild SA26-T (PWC PT6)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-10-10		DC-10/MD-10 (GE CF6)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-10-30		DC-10/MD-10 (GE CF6)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-10-30F		DC-10/MD-10 (GE CF6)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-71	DC-8-70	DC-8 (CFM56)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-71F	DC-8-70	DC-8 (CFM56)	



		GROUP 1 A	EROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-72	DC-8-70	DC-8 (CFM56)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-73	DC-8-70	DC-8 (CFM56)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-73F	DC-8-70	DC-8 (CFM56)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-52	DC-8	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-53	DC-8	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-55	DC-8	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8F-54	DC-8	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8F-55	DC-8	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-61	DC-8-60	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-61F	DC-8-60	DC-8 (PW JT3D)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-62	DC-8-60	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-62F	DC-8-60	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-63	DC-8-60	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-63F	DC-8-60	DC-8 (PW JT3D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-8-33	DC-8	DC-8 (PW JT4A)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-9-14	DC-9	DC-9 (PW JT8D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-9-15	DC-9	DC-9 (PW JT8D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-9-21	DC-9	DC-9 (PW JT8D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-9-32	DC-9	DC-9 (PW JT8D)	
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-9-33F	DC-9	DC-9 (PW JT8D)	



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
McDONNELL	DC-9-34	DC-9	DC-9 (PW JT8D)	
DOUGLAS	20331	203	203 (	
Corporation				
BOEING				
COMPANY				
McDONNELL	DC-9-34F	DC-9	DC-9 (PW JT8D)	
DOUGLAS				
Corporation				
BOEING				
COMPANY				
McDONNELL	DC-9-41	DC-9	DC-9 (PW JT8D)	
DOUGLAS				
Corporation				
BOEING				
COMPANY	50056	500		
McDONNELL	DC-9-51	DC-9	DC-9 (PW JT8D)	
DOUGLAS				
Corporation BOEING				
COMPANY				
McDONNELL	717-200	717	MD 717-200 (RRD BR700-715)	
DOUGLAS	717-200	/1/	WID 717-200 (KKD BK700-713)	
Corporation				
BOEING				
COMPANY				
McDONNELL	MD-11	MD-11	MD-11 (GE CF6)	
DOUGLAS			` '	
Corporation				
BOEING				
COMPANY				
McDONNELL	MD-11F	MD-11	MD-11 (GE CF6)	
DOUGLAS				
Corporation				
BOEING				
COMPANY				
McDONNELL	MD-11	MD-11	MD-11 (PW 4000)	
DOUGLAS				
Corporation BOEING				
COMPANY				
McDONNELL	MD-11F	MD-11	MD-11 (PW 4000)	
DOUGLAS	IAID-TTI.	IAID-TT	MD-11 (FW 4000)	
Corporation				
BOEING				
COMPANY				
McDONNELL	DC-9-81 (MD-	MD-81	MD-80 Series (PW JT8D)	
DOUGLAS	81)		, , , ,	
Corporation				
BOEING				
COMPANY				



		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
McDONNELL	DC-9-82 (MD-	MD-82	MD-80 Series (PW JT8D)	
DOUGLAS	82)			
Corporation BOEING				
COMPANY				
McDONNELL	DC-9-83 (MD-	MD-83	MD-80 Series (PW JT8D)	
DOUGLAS	83)	1010 03	Wie do Series (1 W 3105)	
Corporation				
BOEING				
COMPANY				
McDONNELL	DC-9-87 (MD-	MD-87	MD-80 Series (PW JT8D)	
DOUGLAS	87)			
Corporation BOEING				
COMPANY				
McDONNELL	MD-88		MD-80 Series (PW JT8D)	
DOUGLAS			,	
Corporation				
BOEING				
COMPANY				
McDONNELL DOUGLAS	MD-90 Series		MD-90 (IAE V2500)	
Corporation				
BOEING				
COMPANY				
MITSUBISHI	MU-2B		Mitsubishi MU-2B (Honeywell	
Heavy Industries			TPE331)	
MITSUBISHI	MU-2B-10		Mitsubishi MU-2B (Honeywell	
Heavy Industries	(USA)		TPE331)	
MITSUBISHI Heavy Industries	MU-2B-20		Mitsubishi MU-2B (Honeywell TPE331)	
MITSUBISHI	MU-2B-20		Mitsubishi MU-2B (Honeywell	
Heavy Industries			TPE331)	
MITSUBISHI	MU-2B-25		Mitsubishi MU-2B (Honeywell	
Heavy Industries			TPE331)	
MITSUBISHI	MU-2B-25		Mitsubishi MU-2B (Honeywell	
Heavy Industries	(USA)		TPE331)	
MITSUBISHI	MU-2B-26		Mitsubishi MU-2B (Honeywell	
Heavy Industries	(USA)		TPE331)	
MITSUBISHI Heavy Industries	MU-2B-26A		Mitsubishi MU-2B (Honeywell TPE331)	
MITSUBISHI	MU-2B-26A		Mitsubishi MU-2B (Honeywell	
Heavy Industries	(USA)		TPE331)	
MITSUBISHI	MU-2B-30		Mitsubishi MU-2B (Honeywell	
Heavy Industries			TPE331)	
MITSUBISHI	MU-2B-35		Mitsubishi MU-2B (Honeywell	
Heavy Industries			TPE331)	
MITSUBISHI	MU-2B-36		Mitsubishi MU-2B (Honeywell	
Heavy Industries			TPE331)	



GROUP 1 AEROPLANES				
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
MITSUBISHI Heavy Industries	MU-2B-36A (USA)		Mitsubishi MU-2B (Honeywell TPE331)	
MITSUBISHI Heavy Industries	MU-2B-40 (USA)		Mitsubishi MU-2B (Honeywell TPE331)	
MITSUBISHI Heavy Industries	MU-2B-60 (USA)		Mitsubishi MU-2B (Honeywell TPE331)	
Nomad TC Pty Ltd	N22		Nomad N22/24 Series (RR Corp 250)	
Nomad TC Pty Ltd	N22B		Nomad N22/24 Series (RR Corp 250)	
Nomad TC Pty Ltd	N22C		Nomad N22/24 Series (RR Corp 250)	
Nomad TC Pty Ltd	N22S		Nomad N22/24 Series (RR Corp 250)	
Nomad TC Pty Ltd	N24		Nomad N22/24 Series (RR Corp 250)	
Nomad TC Pty Ltd	N24A		Nomad N22/24 Series (RR Corp 250)	
PIAGGIO Aero Industries	P.166 DP1		Piaggio P166 (PWC PT6)	
PIAGGIO Aero Industries	P180	Avanti	Piaggio P180 Avanti/Avanti II (PWC PT6)	
PIAGGIO Aero Industries	P180	Avanti II	Piaggio P180 Avanti/Avanti II (PWC PT6)	
PILATUS AIRCRAFT	PC-12		Pilatus PC-12 (PWC PT6)	
PILATUS AIRCRAFT	PC-12/45		Pilatus PC-12 (PWC PT6)	
PILATUS AIRCRAFT	PC-12/47		Pilatus PC-12 (PWC PT6)	
PILATUS AIRCRAFT	PC-12/47E		Pilatus PC-12 (PWC PT6)	
PILATUS AIRCRAFT	PC-24		Pilatus PC-24 (Williams FJ44)	
PIPER AIRCRAFT	PA-31T (Cheyenne/ Cheyenne II)	Cheyenne / Cheyenne II	Piper PA-31T Series (PWC PT6)	
PIPER AIRCRAFT	PA-31T1 (Chey. I/ Cheyenne IA)	Cheyenne I / Cheyenne 1A	Piper PA-31T Series (PWC PT6)	
PIPER AIRCRAFT	PA-31T2 (Cheyenne IIXL)	Cheyenne IIXL	Piper PA-31T Series (PWC PT6)	
PIPER AIRCRAFT	PA-31T3	T-1040	Piper PA-31T Series (PWC PT6)	
PIPER AIRCRAFT	PA-42-1000 (Cheyenne 400LS)	Cheyenne 400LS	Piper PA-42 (Honeywell TPE-331)	



	GROUP 1 AEROPLANES				
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note	
PIPER AIRCRAFT	PA-42 (Cheyenne III)	Cheyenne III	Piper PA-42 (PWC PT6)		
PIPER AIRCRAFT	PA-42-720R	Cheyenne III	Piper PA-42 (PWC PT6)		
PIPER AIRCRAFT	PA-42-720 (Cheyenne IIIA)	Cheyenne IIIA	Piper PA-42 (PWC PT6)		
PIPER AIRCRAFT	PA-46-600TP	M600	Piper PA-46-500TP/600TP (PWC PT6)		
PIPER AIRCRAFT	PA-46-500TP	Malibu Meridian	Piper PA-46-500TP/600TP (PWC PT6)		
POLSKIE ZAKLADY LOTNICZE	PZL M28 00		PZL M 28 (PWC PT6)		
POLSKIE ZAKLADY LOTNICZE	PZL M28 02		PZL M 28 (PWC PT6)		
POLSKIE ZAKLADY LOTNICZE	PZL M28 05		PZL M 28 (PWC PT6)		
PT. DIRGANTARA INDONESIA	CN-235		CASA CN-235 (GE CT7)		
PT. DIRGANTARA INDONESIA	CN-235-100		CASA CN-235 (GE CT7)		
PT. DIRGANTARA INDONESIA	CN-235-110		CASA CN-235 (GE CT7)		
RUAG Aerospace GmbH (DORNIER)	Dornier 228- 100		Dornier 228 (Honeywell TPE331)		
RUAG Aerospace GmbH (DORNIER)	Dornier 228- 101		Dornier 228 (Honeywell TPE331)		
RUAG Aerospace GmbH (DORNIER)	Dornier 228- 200		Dornier 228 (Honeywell TPE331)		
RUAG Aerospace GmbH (DORNIER)	Dornier 228- 201		Dornier 228 (Honeywell TPE331)		
RUAG Aerospace GmbH (DORNIER)	Dornier 228- 202		Dornier 228 (Honeywell TPE331)		
RUAG Aerospace	Dornier 228- 212		Dornier 228 (Honeywell TPE331)		

		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
GmbH (DORNIER)				
RUAG Aerospace GmbH (DORNIER)	Do 28 D-6		Dornier Do 28 Series (PWC PT6)	
RUAG Aerospace GmbH (DORNIER)	Dornier 128-6		Dornier Do 28 Series (PWC PT6)	
SAAB AB, SAAB Aerosystems	Saab SF340A	Saab-Fairchild 340A	Saab (SF) 340 (GE CT7)	
SAAB AB, SAAB Aerosystems	Saab 340B		Saab (SF) 340 (GE CT7)	
SAAB AB, SAAB Aerosystems	Saab 2000		Saab 2000 (RR Corp AE2100)	
SHORT BROTHERS PLC	SC7 Series 3	Skyvan	Shorts SC7 (Honeywell TPE331)	
SHORT BROTHERS PLC	SD3-30	Variant 200	Shorts SD3 Series-30/SD3-60 (PWC PT6)	
SHORT BROTHERS PLC	SD3-60	Variant 200	Shorts SD3 Series-30/SD3-60 (PWC PT6)	
SHORT BROTHERS PLC	SD3-60 SHERPA	Variant 200	Shorts SD3 Series-30/SD3-60 (PWC PT6)	
SHORT BROTHERS PLC	SD3-SHERPA	Variant 200	Shorts SD3 Series-30/SD3-60 (PWC PT6)	
Textron Aviation Defense LLC	Model 3000 (PM Series)		Textron Defense 3000 (PWC PT6)	Pending OSD approval.
TEXTRON AVIATION Inc.	1900	Airliner	Beech 1900 (PWC PT6)	
TEXTRON AVIATION Inc.	1900C	Airliner	Beech 1900 (PWC PT6)	
TEXTRON AVIATION Inc.	1900D	Airliner	Beech 1900 (PWC PT6)	
TEXTRON AVIATION Inc.	200C		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	200CT		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	200T		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	A200		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	A200C		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	A200CT		Beech 200 Series (PWC PT6)	



		GROUP 1 A	EROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
TEXTRON AVIATION Inc.	B200		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	B200C		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	B200CGT		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	B200CT		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	B200GT		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	B200T		Beech 200 Series (PWC PT6)	
TEXTRON AVIATION Inc.	300	Super King Air	Beech 300 Series (PWC PT6)	
TEXTRON AVIATION Inc.	B300	Super King Air 350	Beech 300 Series (PWC PT6)	
TEXTRON AVIATION Inc.	B300C	Super King Air 350 C	Beech 300 Series (PWC PT6)	
TEXTRON AVIATION Inc.	390	Premier I (RB s/n 1-101 and 103-134). Premier IA (avionics and interior upgrades s/n 102 and 135).	Beech 390 (Williams FJ44)	
TEXTRON AVIATION Inc.	65-90	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	65-A90	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	65-A90-1	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	65-A90-2	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	65-A90-3	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	65-A90-4	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	B90	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	C90	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	C90A	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	C90GT	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	C90GTi	King Air	Beech 90 Series (PWC PT6)	



GROUP 1 AEROPLANES				
TC Holder	Model	Com. des.	Part-66 type rating endorsement Note	
TEXTRON AVIATION Inc.	E90	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	H90	King Air	Beech 90 Series (PWC PT6)	
TEXTRON AVIATION Inc.	A100-1	King Air	Beech 99/100 Series (PWC PT6)	
TEXTRON AVIATION Inc.	402C	Businessliner Utiliner	Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	414A	Chancellor	Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	421B	Golden Eagle	Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	421C	Golden Eagle	Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	404	Titan	Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	401		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	402		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	411		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	414		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	421		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	401A		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	401B		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	402A		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	402B		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	411A		Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	421A	C	Cessna 400 Series (Continental)	
TEXTRON AVIATION Inc.	425	Corsair / Conquest I	Cessna 425 (PWC PT6)	
TEXTRON AVIATION Inc.	441	Conquest	Cessna 441 (Honeywell TPE331)	
AVIATION Inc.	560	Citation V Citation Ultra	Cessna 500/550/560 (PWC JT15D)	
TEXTRON AVIATION Inc.	500	Citation / Citation I	Cessna 500/550/560 (PWC JT15D)	
TEXTRON AVIATION Inc.	550	Citation II	Cessna 500/550/560 (PWC JT15D)	



GROUP 1 AEROPLANES				
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
TEXTRON AVIATION Inc.	\$550	Citation S/II C	Cessna 500/550/560 (PWC JT15D)	
TEXTRON AVIATION Inc.	501	Citation I	Cessna 501/551 (PWC JT15D)	
TEXTRON AVIATION Inc.	551	Citation II	Cessna 501/551 (PWC JT15D)	
TEXTRON AVIATION Inc.	510	Citation Mustang	Cessna 510 (PWC PW615)	
TEXTRON AVIATION Inc.	525	Citation Jet (CJ) (s/n 1 - 359); Citation Jet 1 (CJ1) (s/n 360 - 599); Citation Jet1+ (CJ1+) (s/n 600 - 684 and 686 - 701); M2 (s/n 800 – and up).	Cessna 525/525A/525B (Williams FJ44)	
TEXTRON AVIATION Inc.	525A	Citation Jet CJ2	Cessna 525/525A/525B (Williams FJ44)	
TEXTRON AVIATION Inc.	525B	Citation Jet CJ3	Cessna 525/525A/525B (Williams FJ44)	
TEXTRON AVIATION Inc.	525C	Citation Jet CJ4	Cessna 525C (Williams FJ44)	
TEXTRON AVIATION Inc.	550	Citation Bravo	Cessna 550/560 (PWC PW530/535)	
TEXTRON AVIATION Inc.	560	Citation Encore Citation Encore +	Cessna 550/560 (PWC PW530/535)	
TEXTRON AVIATION Inc.	560XL	Citation Excel Citation XLS Citation XLS+	Cessna 560XL/XLS (PWC PW545)	
TEXTRON AVIATION Inc.	650	Citation III Citation VI Citation VII	Cessna 650 (Honeywell TFE731)	
TEXTRON AVIATION Inc.	680	Citation Sovereign Citation Sovereign +	Cessna 680 (PWC PW306)	
TEXTRON AVIATION Inc.	680A	Latitude	Cessna 680 (PWC PW306)	
TEXTRON AVIATION Inc.	750	Citation X	Cessna 750 (RR AE3007C)	
TEXTRON AVIATION Inc.	4000	Hawker 4000	Hawker 4000 (PWC PW308)	
TUPOLEV PSC	TU 204-120CE		Tupolev TU 204 (RR RB211)	



GROUP 1 AEROPLANES				
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
Turkish Aerospace Industries, Inc. (TAI)	TT32	HÜRKUŞ	TAI TT32 (PWC PT6)	
TWIN COMMANDER AIRCRAFT Corporation	681	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	690	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	695	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	680T	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	680V	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	680W	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	690A	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	690B	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	690C	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	690D	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER AIRCRAFT Corporation	695A	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	
TWIN COMMANDER	695B	Twin Commander	Twin Commander 680/681/690/695 Series (Honeywell TPE331)	

		GROUP 1 A	AEROPLANES	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
AIRCRAFT Corporation				
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 400	Twin Otter	De Havilland DHC-6 (PWC PT6)	OSD approved on 28.2.2017.
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 1	Twin Otter	De Havilland DHC-6 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 100	Twin Otter	De Havilland DHC-6 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 110	Twin Otter	De Havilland DHC-6 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 200	Twin Otter	De Havilland DHC-6 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 210	Twin Otter	De Havilland DHC-6 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 300	Twin Otter	De Havilland DHC-6 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 310	Twin Otter	De Havilland DHC-6 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-6 Series 320	Twin Otter	De Havilland DHC-6 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-7-100		De Havilland DHC-7 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-7-101		De Havilland DHC-7 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-7-102		De Havilland DHC-7 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-7-103		De Havilland DHC-7 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-7-110		De Havilland DHC-7 (PWC PT6)	
VIKING AIR (Bombardier) (De Havilland)	DHC-7-111		De Havilland DHC-7 (PWC PT6)	

## Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

GROUP 1 AEROPLANES					
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note	
VULCANAIR	AP68TP-300 'Spartacus'	Spartacus	Vulcanair AP68TP Series (RR Corp 250)		
VULCANAIR	AP68TP-600 'Viator'	Viator	Vulcanair AP68TP Series (RR Corp 250)		
VULCANAIR	SF600		Vulcanair SF600 (RR Corp 250)		
VULCANAIR	SF600A		Vulcanair SF600 (RR Corp 250)		

## Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

## **STCs in GROUP 1 AEROPLANES**

ED Decision 2019/024/R

	GROUP 1 AEROPLANES (STC)					
STC holder	Model	Com. des.	Part-66 type rating endorsement	Note		
AEROSERVIS s.r.o.	L 410 UVP-E		Let-410 (PWC PT6)	STC not yet released.		
AEROSERVIS s.r.o.	L 410 UVP-E9		Let-410 (PWC PT6)	STC not yet released.		
AEROSERVIS s.r.o.	L 410 UVP-E20		Let-410 (PWC PT6)	STC not yet released.		
GOMOLZIG FLUGZEUG- UND MASCHINENBAU (STC)	Dornier DO 28 D-2		Dornier Do 28 (Walter M601)	STC No 10015031		
JET AVIATION AG (STC)	Fan Jet Falcon E		Falcon 20E (Honeywell TFE731)			
NEXTANT AEROSPACE L.L.C. (STC)	Beech 400A		Beech 400A (Williams FJ44)	STC No 10042353		
Sierra Industries Ltd.	501	Citation	Cessna 501 (Williams FJ44)	STC No EASA.IM.A. S.01937		
THE MONROE COMPANY, LLC (STC)	Cessna 550		Cessna 550/S550 (Williams FJ 44)	STC No 10053014		
THE MONROE COMPANY, LLC (STC)	Cessna S550		Cessna 550/S550 (Williams FJ 44)	STC No 10053014		



## **GROUP 1 HELICOPTERS**

ED Decision 2019/024/R

	GROUP 1 HELICOPTERS				
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note	
AGUSTA	AB 204 B		Agusta AB204, AB205 / Bell 204, 205 (Honeywell T53)		
AGUSTA	AB 205 A-1		Agusta AB204, AB205 / Bell 204, 205 (Honeywell T53)		
AGUSTA	AS-61N		Agusta AS61N/Sikorsky S-61N (GE CT58)		
AGUSTA	AS-61N1		Agusta AS61N/Sikorsky S-61N (GE CT58)		
AIRBUS HELICOPTERS	AS 332 C	SUPER PUMA Mk I	Eurocopter AS 332 (Turbomeca Makila 1A/1A1)		
AIRBUS HELICOPTERS	AS 332 C1	SUPER PUMA Mk I	Eurocopter AS 332 (Turbomeca Makila 1A/1A1)		
AIRBUS HELICOPTERS	AS 332 L	SUPER PUMA Mk I	Eurocopter AS 332 (Turbomeca Makila 1A/1A1)		
AIRBUS HELICOPTERS	AS 332 L1	SUPER PUMA Mk I	Eurocopter AS 332 (Turbomeca Makila 1A/1A1)		
AIRBUS HELICOPTERS	AS 332 L2		Eurocopter AS 332 L2 (Turbomeca Makila 1A2)		
AIRBUS HELICOPTERS	AS 355 E	Ecureuil II / TwinStar	Eurocopter AS 355 (RR Corp 250)		
AIRBUS HELICOPTERS	AS 355 F	Ecureuil II / TwinStar	Eurocopter AS 355 (RR Corp 250)		
AIRBUS HELICOPTERS	AS 355 F1	Ecureuil II / TwinStar	Eurocopter AS 355 (RR Corp 250)		
AIRBUS HELICOPTERS	AS 355 F2	Ecureuil II / TwinStar	Eurocopter AS 355 (RR Corp 250)		
AIRBUS HELICOPTERS	AS 355 N	Ecureuil II / TwinStar	Eurocopter AS 355 (Turbomeca Arrius 1)		
AIRBUS HELICOPTERS	AS 355 NP	Ecureuil II / TwinStar	Eurocopter AS 355 (Turbomeca Arrius 1)		
AIRBUS HELICOPTERS	AS 365 N3	Dauphin	Eurocopter AS 365 N3 (Turbomeca Arriel 2C)		
AIRBUS HELICOPTERS	EC 155 B		Eurocopter EC 155 (Turbomeca Arriel 2)		
AIRBUS HELICOPTERS	EC 155 B1		Eurocopter EC 155 (Turbomeca Arriel 2)		
AIRBUS HELICOPTERS	EC 175 B		Eurocopter EC 175 (PWC PT6C)		
AIRBUS HELICOPTERS	EC 225 LP	SUPER PUMA Mk II+ or LP	Eurocopter EC 225 (Turbomeca Makila 2A)		
AIRBUS HELICOPTERS	SA 330 J		Eurocopter SA 330 (Turbomeca Turmo)		
AIRBUS HELICOPTERS	SA 365 C1	Dauphin	Eurocopter SA 365 C Series (Turbomeca Arriel 1)		
AIRBUS HELICOPTERS	SA 365 C2	Dauphin	Eurocopter SA 365 C Series (Turbomeca Arriel 1)		



	GROUP 1 HELICOPTERS				
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note	
AIRBUS	SA 365 C3	Dauphin	Eurocopter SA 365 C Series		
HELICOPTERS			(Turbomeca Arriel 1)		
AIRBUS	AS 365 N2	Dauphin	Eurocopter SA 365 N/N1, AS 365 N2		
HELICOPTERS			(Turbomeca Arriel 1)		
AIRBUS	SA 365 N1	Dauphin	Eurocopter SA 365 N/N1, AS 365 N2		
HELICOPTERS AIRBUS	SA 365 N		(Turbomeca Arriel 1) Eurocopter SA 365 N/N1, AS 365 N2		
HELICOPTERS	3A 303 N		(Turbomeca Arriel 1)		
AIRBUS	EC135 P3H		AIRBUS HELICOPTERS EC135 P3H		
HELICOPTERS			(PWC PW206)		
DEUTSCHLAND					
GmbH					
AIRBUS HELICOPTERS	EC635 P3H		AIRBUS HELICOPTERS EC135 P3H (PWC PW206)		
DEUTSCHLAND			(PWC PW200)		
GmbH					
AIRBUS	EC135 T3H		AIRBUS HELICOPTERS EC135 T3H		
HELICOPTERS			(Turbomeca Arrius 2B)		
DEUTSCHLAND					
GmbH AIRBUS	EC635 T3H		AIRBUS HELICOPTERS EC135 T3H		
HELICOPTERS	EC035 13H		(Turbomeca Arrius 2B)		
DEUTSCHLAND			(10.00000.100.00)		
GmbH					
AIRBUS	BO 105 A		BO 105 series (RR Corp 250)		
HELICOPTERS					
DEUTSCHLAND GmbH					
AIRBUS	BO 105 C		BO 105 series (RR Corp 250)		
HELICOPTERS			2 0 000 00000 (mm 000 p 200)		
DEUTSCHLAND					
GmbH					
AIRBUS	BO 105 D		BO 105 series (RR Corp 250)		
HELICOPTERS DEUTSCHLAND					
GmbH					
AIRBUS	BO 105 LS A-1		BO 105 series (RR Corp 250)		
HELICOPTERS					
DEUTSCHLAND					
GmbH	DO 105 LS A 3		PO 105 series (PR Cours 350)		
AIRBUS HELICOPTERS	BO 105 LS A-3		BO 105 series (RR Corp 250)		
DEUTSCHLAND					
GmbH					
AIRBUS	BO 105 S		BO 105 series (RR Corp 250)		
HELICOPTERS					
DEUTSCHLAND GmbH					
GIIIDH					



GROUP 1 HELICOPTERS				
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 P1 (CDS)		Eurocopter EC 135 (PWC PW206)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 P1 (CPDS)		Eurocopter EC 135 (PWC PW206)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 P2 (CPDS)		Eurocopter EC 135 (PWC PW206)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 P2+		Eurocopter EC 135 (PWC PW206)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 P3 (CPDS)		Eurocopter EC 135 (PWC PW206)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC635 P2+		Eurocopter EC 135 (PWC PW206)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC635 P3 (CPDS)		Eurocopter EC 135 (PWC PW206)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC 135 T2+		Eurocopter EC 135 (Turbomeca Arrius 2B)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 T1 (CDS)		Eurocopter EC 135 (Turbomeca Arrius 2B)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 T1 (CPDS)		Eurocopter EC 135 (Turbomeca Arrius 2B)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 T2 (CPDS)		Eurocopter EC 135 (Turbomeca Arrius 2B)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC135 T3 (CPDS)		Eurocopter EC 135 (Turbomeca Arrius 2B)	



		GROUP 1	HELICOPTERS	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC635 T1 (CPDS)		Eurocopter EC 135 (Turbomeca Arrius 2B)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC635 T2+		Eurocopter EC 135 (Turbomeca Arrius 2B)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	EC635 T3 (CPDS)		Eurocopter EC 135 (Turbomeca Arrius 2B)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 A-1		Eurocopter MBB-BK 117 A/B (Honeywell LTS 101)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 A-3		Eurocopter MBB-BK 117 A/B (Honeywell LTS 101)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 A-4		Eurocopter MBB-BK 117 A/B (Honeywell LTS 101)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 B-1		Eurocopter MBB-BK 117 A/B (Honeywell LTS 101)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 B-2		Eurocopter MBB-BK 117 A/B (Honeywell LTS 101)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 C-1		Eurocopter MBB-BK 117 C1 (Turbomeca Arriel 1)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 C-2	EC145	Eurocopter MBB-BK 117 C2 (Turbomeca Arriel 1)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 C-2e	EC145	Eurocopter MBB-BK 117 C2 (Turbomeca Arriel 1)	
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 D-2	EC145 T2	Eurocopter MBB-BK 117 D2 (Turbomeca Arriel 2)	



		GROUP 1	HELICOPTERS	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
AIRBUS HELICOPTERS DEUTSCHLAND GmbH	MBB-BK117 D-2m	H145	Eurocopter MBB-BK 117 D2 (Turbomeca Arriel 2)	
BELL HELICOPTER CANADA	222		Bell 222 (Honeywell LTS 101)	
BELL HELICOPTER CANADA	222B		Bell 222 (Honeywell LTS 101)	
BELL HELICOPTER CANADA	222U		Bell 222 (Honeywell LTS 101)	
BELL HELICOPTER CANADA	230	230 Executive 230 Utility 230 EMS	Bell 230 (RR Corp 250)	
BELL HELICOPTER CANADA	427		Bell 427 (PWC PW207D)	
BELL HELICOPTER CANADA	429		Bell 429 (PWC PW207D)	
BELL HELICOPTER CANADA	430		Bell 430 (RR Corp 250)	
BELL HELICOPTER TEXTRON, INC.	204B		Agusta AB204, AB205 / Bell 204, 205 (Honeywell T53)	
BELL HELICOPTER TEXTRON, INC.	205A-1		Agusta AB204, AB205 / Bell 204, 205 (Honeywell T53)	
BELL HELICOPTER TEXTRON, INC.	212		Bell 212 / Agusta AB212 (PWC PT6)	
BELL HELICOPTER TEXTRON, INC.	214B		Bell 214 (Honeywell T5508)	
BELL HELICOPTER TEXTRON, INC.	214B-1		Bell 214 (Honeywell T5508)	
BELL HELICOPTER TEXTRON, INC.	214ST		Bell 214ST (GE CT7)	
BELL HELICOPTER TEXTRON, INC.	412		Bell 412 / Agusta AB412 (PWC PT6)	
BELL HELICOPTER TEXTRON, INC.	412EP		Bell 412 / Agusta AB412 (PWC PT6)	



		GROUP 1	HELICOPTERS	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
ERICKSON AIR-	S-64F		Erickson S-64 (PW JFTD 12)	
CRANE				
KAMAN	K-1200		Kaman K-1200 (Honeywell T5317)	
AEROSPACE				
CORPORATION				
KAMOV	Ka-32A11BC		Kamov Ka 32 (Klimov)	
LEONARDO	A109K2		Agusta A109 (Turbomeca Arriel 1)	
S.p.A.				
LEONARDO	A109S	Grand	Agusta A109 Series (PWC PW206/207)	
S.p.A.		AW109S		
LEONARDO	AW109SP	GrandNew	Agusta A109 Series (PWC PW206/207)	
S.p.A.				
LEONARDO	A109N	Nexus	Agusta A109 Series (PWC PW206/207)	
S.p.A.	44005	AW109N	A	
LEONARDO S.p.A.	A109E	Power AW109E	Agusta A109 Series (PWC PW206/207)	
•	4100	AVV109E	Acusto A100 Coving (DD Covin 200)	
LEONARDO S.p.A.	A109		Agusta A109 Series (RR Corp 250)	
LEONARDO	A109A		Agusto A100 Sovies (DD Comp 200)	
S.p.A.	AIU9A		Agusta A109 Series (RR Corp 250)	
LEONARDO	A109AII		Agusta A109 Series (RR Corp 250)	
S.p.A.	AIOSAII		Agusta A103 Series (NN Corp 230)	
LEONARDO	A109C		Agusta A109 Series (RR Corp 250)	
S.p.A.	712030		7.845ta 7.125 Series (iiit es. p 250)	
LEONARDO	A109LUH	AW109LUH	Agusta A109 Series	
S.p.A.			(Turbomeca Arrius 2)	
LEONARDO	A109E	Power	Agusta A109 Series	
S.p.A.		AW109E	(Turbomeca Arrius 2)	
LEONARDO	AB139		Agusta AB139 / AW139 (PWC PT6)	
S.p.A.				
LEONARDO	AW139		Agusta AB139 / AW139 (PWC PT6)	
S.p.A.				
LEONARDO	EH 101-300		Agusta/Westland EH-101 (GE CT7)	
S.p.A.				
LEONARDO	EH 101-500		Agusta/Westland EH-101 (GE CT7)	
S.p.A.				
LEONARDO	EH 101-510		Agusta/Westland EH-101 (GE CT7)	
S.p.A.	ANA/4.50		AVA/4 CO / PNA/C 24 C)	
LEONARDO	AW169		AW169 (PWC 210)	
S.p.A.	A\A/190		AW190 (CE CT7)	
LEONARDO S.p.A.	AW189		AW189 (GE CT7)	
LEONARDO	AB 212		Bell 212 / Agusta AB212 (PWC PT6)	
S.p.A.	VD 515		Deli 212 / Agusta AD212 (FWC F10)	
LEONARDO	AB 412		Bell 412 / Agusta AB412 (PWC PT6)	
S.p.A.	7.D T12		Deli 412 / Agusta AD412 (1 We 1 10)	
LEONARDO	AB 412 EP		Bell 412 / Agusta AB412 (PWC PT6)	
S.p.A.			, , , , , , , , , , , , , , , , , , , ,	
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		GROUP 1	HELICOPTERS	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
MD HELICOPTERS, Inc.	MD900		MD Helicopters MD900 (PWC PW206/207)	
Philippine Aerospace Development Corp	P-BO 105 C		BO 105 series (RR Corp 250)	
Philippine Aerospace Development Corp	P-BO 105 S		BO 105 series (RR Corp 250)	
PZL-ŚWIDNIK	W-3A		PZL-Swidnik W-3A/W-3AS (Rzeszow PZL-10W)	
PZL-ŚWIDNIK	W-3AS		PZL-Swidnik W-3A/W-3AS (Rzeszow PZL-10W)	
SIKORSKY AIRCRAFT	S-61N		Agusta AS61N/Sikorsky S-61N (GE CT58)	
SIKORSKY AIRCRAFT	S-61NM		Agusta AS61N/Sikorsky S-61N (GE CT58)	
SIKORSKY AIRCRAFT	S-58BT		Sikorsky S-58 (PWC PT6T)	
SIKORSKY AIRCRAFT	S-58DT		Sikorsky S-58 (PWC PT6T)	
SIKORSKY AIRCRAFT	S-58ET		Sikorsky S-58 (PWC PT6T)	
SIKORSKY AIRCRAFT	S-58FT		Sikorsky S-58 (PWC PT6T)	
SIKORSKY AIRCRAFT	S-58HT		Sikorsky S-58 (PWC PT6T)	
SIKORSKY AIRCRAFT	S-58JT		Sikorsky S-58 (PWC PT6T)	
SIKORSKY AIRCRAFT	S-76A	S-76A+ S-76A++	Sikorsky S-76 (Turbomeca Arriel 1)	
SIKORSKY AIRCRAFT	S-76A		Sikorsky S-76A (RR Corp 250)	
SIKORSKY AIRCRAFT	S-76B	S-76B	Sikorsky S-76B (PWC PT6)	
SIKORSKY AIRCRAFT	S-76C		Sikorsky S-76C (Turbomeca Arriel 1)	
SIKORSKY AIRCRAFT	S-76C	S-76C+ S-76C++	Sikorsky S-76C (Turbomeca Arriel 2)	
SIKORSKY AIRCRAFT	S-76D		Sikorsky S-76D (PW210S)	
SIKORSKY AIRCRAFT	S-92A		Sikorsky S-92A (GE CT7-8)	



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

#### **STCs in GROUP 1 HELICOPTERS**

GROUP 1 HELICOPTERS					
STC Holder	Model	Model Com. des. Part-66 type rating endorsement No			
Heli-Air Inc. (STC)	Bell 222		Bell 222 (RR Corp 250)		

Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

## **GROUP 1 GAS AIRSHIPS (other than ELA2)**

	GROUP 1 GAS AIRSHIPS (other than ELA2)					
TC Holder	Model	Com. des.	Part-66 type rating endorsement	NOTE		
Skyship Services	Skyship 600		Skyship (Porsche)			
Worldwide Aeros Corporation	Aeros 40B		Worldwide Aeros (Continental)			
Zeppelin Luftschifftechnik GmbH & Co KG	LZ N07-100		Zeppelin LZ N07 (Lycoming)			
Zeppelin Luftschifftechnik GmbH & Co KG	LZ N07-101		Zeppelin LZ N07 (Lycoming)			



## SUBGROUP 2a: SINGLE TURBO-PROPELLER ENGINE AEROPLANES (other than those in Group 1)

SUBGROUP 2a: S	INGLE TURBO-PRO	PELLER ENGINE	E AEROPLANES (Other than those in Grou	ıp 1)
TC holder	Model	Com. des.	Part-66 type rating endorsement	Note
AERO VODOCHODY	Ae 270		Aero Ae-270 (PWC PT6)	
AIR TRACTOR, INC.	AT-302		Air Tractor AT-302 (Lycoming LTP101)	
AIR TRACTOR, INC.	AT-400		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-400A		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-402		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-402A		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-402B		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-502		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-502A		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-502B		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-503		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-503A		Air Tractor AT-400/500/600 Series (PWC PT6)	
AIR TRACTOR, INC.	AT-602		Air Tractor AT-400/500/600 Series (PWC PT6)	
ALLIED AG CAT Productions	G-164D		Grumman G-164 (PWC PT6)	
ALLIED AG CAT Productions	G-164D with 73' wing gap		Grumman G-164 (PWC PT6)	
EADS PZL 'WARSZAWA-OKECIE'	PZL-106 BT-601 TURBO KRUK		EADS PZL PZL-106 BT (Walter M601)	
EADS PZL 'WARSZAWA-OKECIE'	PZL-106 BTU-34 TURBO KRUK		EADS PZL PZL-106 BTU (PWC PT6)	
GROB Aircraft AG	G 120TP-A		Grob G 120TP (RR Corp 250)	
LEONARDO S.p.A.	SF260TP		Aermacchi SF260 (RR M250)	ELA1
PACIFIC AEROSPACE Corporation	750XL		PAC 750XL (PWC PT6)	
PILATUS AIRCRAFT	PC-6/B1-H2		Pilatus PC-6 (PWC PT6)	ELA2
PILATUS AIRCRAFT	PC-6/B2-H2		Pilatus PC-6 (PWC PT6)	ELA2
PILATUS AIRCRAFT	PC-6/B2-H4		Pilatus PC-6 (PWC PT6)	ELA2
PILATUS AIRCRAFT	PC-6/B-H2		Pilatus PC-6 (PWC PT6)	ELA2
PILATUS AIRCRAFT	PC-6/C1-H2		Pilatus PC-6 Series (Honeywell TPE 331)	ELA2
PILATUS AIRCRAFT	PC-6/C-H2		Pilatus PC-6 Series (Honeywell TPE 331)	ELA2

SUBGROUP 2a: S	INGLE TURBO-PRO	PELLER ENGINI	E AEROPLANES (Other than those in Gro	up 1)
TC holder	Model	Com. des.	Part-66 type rating endorsement	Note
PILATUS AIRCRAFT	PC-6/A		Pilatus PC-6 Series (Turbomeca Astazou)	ELA2
PILATUS AIRCRAFT	PC-6/A1-H2		Pilatus PC-6 Series (Turbomeca Astazou)	ELA2
PILATUS AIRCRAFT	PC-6/A2-H2		Pilatus PC-6 Series (Turbomeca Astazou)	ELA2
PILATUS AIRCRAFT	PC-6/A-H1		Pilatus PC-6 Series (Turbomeca Astazou)	ELA2
PILATUS AIRCRAFT	PC-6/A-H2		Pilatus PC-6 Series (Turbomeca Astazou)	ELA2
Quest Aircraft Design LLC	Kodiak 100		Quest Kodiak 100 (PWC PT6)	
SST FLUGTECHNIK GmbH	EA 400-500	EXTRA 500	Extra EA-400-500 (RR Corp 250)	
TEXTRON AVIATION Inc.	208	Caravan I	Cessna 208 Series (PWC PT6)	
TEXTRON AVIATION Inc.	208B	Caravan II	Cessna 208 Series (PWC PT6)	
THRUSH AIRCRAFT	S2R-H80		Thrush S2R Series (GEAC H80)	
THRUSH AIRCRAFT	600 S-2D		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2RHG-T34		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2RHG-T65		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2R-T11		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2R-T15		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2R-T34		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2R-T45		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2R-T65		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2R-T660		Thrush S2R Series (PWC PT6)	
THRUSH AIRCRAFT	S2R-G1		Thrush S2R Series (TPE331)	
THRUSH AIRCRAFT	S2R-G10		Thrush S2R Series (TPE331)	
THRUSH AIRCRAFT	S2R-G5		Thrush S2R Series (TPE331)	
THRUSH AIRCRAFT	S2R-G6		Thrush S2R Series (TPE331)	
VIKING AIR	DHC-2 MK III	Turbo-	De Havilland DHC-2 (PWC PT6)	
(Bombardier) (De Havilland)	(Turbo-Beaver)	Beaver		
ZLIN AIRCRAFT	Z 137 T		Zlin Z-37 T Series (Walter M601)	
ZLIN AIRCRAFT	Z 37 T		Zlin Z-37 T Series (Walter M601)	

#### STCs in SUBGROUP 2a AEROPLANES

SUBGROUP 2a: SIN	GLE TURBO-PRO	PELLER ENGINE	AEROPLANES (Other than those in Gr	oup 1) (STC)
STC holder	Model	Com. des.	Part-66 type rating endorsement	Note
AERO TWIN, Inc.	Cessna 208	Cessna 208	Cessna 208/208B	STC No
(STC)			(Honeywell TPE331)	10033295
AERO TWIN, Inc.	Cessna 208B	Cessna 208B	Cessna 208/208B	STC No
(STC)			(Honeywell TPE331)	10033295
Eichenberger Aviation AG (STC)	P210N		Cessna P210N (RR Corp 250)	ELA2. STC FAA SA1003NE LBA ref.: 0779/625b EASA ref.: 10060053
JETPROP, LLC. (STC)	PA-46-350P	Mirage	Piper PA-46 Pressurised (PWC PT6)	ELA2. STC Nos 10015707, 10016000.
JETPROP, LLC. (STC)	PA-46-310P		Piper PA-46 Pressurised (PWC PT6)	ELA2. STC Nos 10015707, 10016000.
SOLOY, LLC (STC)	206H		Cessna 206 (RR Corp 250)	ELA2. STC No 10027209
SOLOY, LLC (STC)	T206H		Cessna 206 (RR Corp 250)	ELA2. STC No 10027209
SOLOY, LLC (STC)	TU206G		Cessna 206 (RR Corp 250)	ELA2. STC No 10027209
SOLOY, LLC (STC)	U206G		Cessna 206 (RR Corp 250)	ELA2. STC No 10027209
SOLOY, LLC (STC)	207		Cessna 207 (RR Corp 250)	ELA2. STC
SOLOY, LLC (STC)	207A		Cessna 207 (RR Corp 250)	ELA2. STC
SOLOY, LLC (STC)	T207		Cessna 207 (RR Corp 250)	ELA2. STC
SOLOY, LLC (STC)	T207A		Cessna 207 (RR Corp 250)	ELA2. STC
SUPERVAN SYSTEMS, Ltd. (STC)	Cessna 208	Cessna 208	Cessna 208/208B (Honeywell TPE331)	STC No 10033267
SUPERVAN SYSTEMS, Ltd. (STC)	Cessna 208B	Cessna 208B	Cessna 208/208B (Honeywell TPE331)	STC No 10033267
Tradewind Turbines/Soloy (STC)	Beech A36		Beech 36 Series (RR Corp 250)	ELA2. STC LBA ref.: SA 1034. FAA STC SA3523NM.
Tradewind Turbines/Soloy (STC)	Beech A36TC		Beech 36 Series (RR Corp 250)	ELA2. STC LBA ref.: SA 1034. FAA STC SA3523NM.
Turbine Conversions, LTD (STC)	206		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	206H		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	P206		Cessna 206 (PWC PT6)	ELA2. STC No 10061949

SUBGROUP 2a: SIN	GLE TURBO-PRO	PELLER ENGINE	AEROPLANES (Other than those in Gr	oup 1) (STC)
STC holder	Model	Com. des.	Part-66 type rating endorsement	Note
Turbine Conversions, LTD (STC)	P206A		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	P206B		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	P206C		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	P206D		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	P206E		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	T206H		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TP206A		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TP206B		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TP206C		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TP206D		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TP206E		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TU206A		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TU206B		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TU206C		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TU206D		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TU206E		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TU206F		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	TU206G		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	U206		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	U206A		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	U206B		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	U206C		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	U206D		Cessna 206 (PWC PT6)	ELA2. STC No 10061949
Turbine Conversions, LTD (STC)	U206E		Cessna 206 (PWC PT6)	ELA2. STC No 10061949

Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

SUBGROUP 2a: SIN	SUBGROUP 2a: SINGLE TURBO-PROPELLER ENGINE AEROPLANES (Other than those in Group 1) (STC)				
STC holder	Model	Com. des.	Part-66 type rating endorsement	Note	
Turbine Conversions, LTD (STC)	U206F		Cessna 206 (PWC PT6)	ELA2. STC No 10061949	
Turbine Conversions, LTD (STC)	U206G		Cessna 206 (PWC PT6)	ELA2. STC No 10061949	
WEST PACIFIC AIR, LLC (STC)	B36TC		Beech 36TC (PWC PT6)	ELA2. STC No 10030059	



# SUBGROUP 2b: SINGLE TURBINE-ENGINE HELICOPTERS (other than those in Group 1)

SUBGRO	UP 2b: SINGLE TU	JRBINE-ENGINI	E HELICOPTERS (other than those in Group 1)
TC Holder	Model	Com. des.	Part-66 type rating endorsement Note
AIRBUS	AS 350 D		Eurocopter AS 350 (Lycoming LTS101)
HELICOPTERS			
AIRBUS	AS 350 B	Écureuil	Eurocopter AS 350 (Turbomeca Arriel 1)
HELICOPTERS	46.050.54	<i>4</i> .,	
AIRBUS HELICOPTERS	AS 350 B1	Écureuil	Eurocopter AS 350 (Turbomeca Arriel 1)
AIRBUS	AS 350 B2	Écureuil	Eurocopter AS 350 (Turbomeca Arriel 1)
HELICOPTERS	A3 330 B2	Learean	Eurocopier A5 550 (Turbonicea Africi 1)
AIRBUS	AS 350 BA	Écureuil	Eurocopter AS 350 (Turbomeca Arriel 1)
HELICOPTERS			
AIRBUS	AS 350 BB	Écureuil	Eurocopter AS 350 (Turbomeca Arriel 1)
HELICOPTERS			
AIRBUS	AS 350 B3	Écureuil	Eurocopter AS 350 (Turbomeca Arriel 2)
HELICOPTERS	FC 420 D	C-lih ::i	F 50 420
AIRBUS HELICOPTERS	EC 120 B	Colibri	Eurocopter EC 120 (Turbomeca Arrius 2F)
AIRBUS	EC 130 B4		Eurocopter EC 130 (Turbomeca Arriel 2)
HELICOPTERS	20 130 5 1		
AIRBUS	EC 130 T2		Eurocopter EC 130 (Turbomeca Arriel 2)
HELICOPTERS			
AIRBUS	SA 315 B	Alouette III	Eurocopter SA 315B
HELICOPTERS		Lama	(Turbomeca Artouste)
AIRBUS HELICOPTERS	SA 316 B	Alouette III	Eurocopter SA 316 B/SA 316 C (Turbomeca Artouste)
AIRBUS	SA 316 C	Alouette III	Eurocopter SA 316 B/SA 316 C
HELICOPTERS	3A 310 C	Alouette III	(Turbomeca Artouste)
AIRBUS	SE 3160	Alouette III	Eurocopter SA 316 B/SA 316 C
HELICOPTERS			(Turbomeca Artouste)
AIRBUS	SA 318 B	Alouette-	Eurocopter SA 318
HELICOPTERS		Astazou	(Turbomeca Astazou)
AIRBUS HELICOPTERS	SA 318 C	Alouette- Astazou	Eurocopter SA 318 (Turbomeca Astazou)
AIRBUS	SA 3180	Astuzou Alouette-	Eurocopter SA 318
HELICOPTERS	3A 3100	Astazou	(Turbomeca Astazou)
AIRBUS	SA 319 B	Alouette III	Eurocopter SA 319
HELICOPTERS			(Turbomeca Astazou XIV)
AIRBUS	SA 341 G	Gazelle	Eurocopter SA 341
HELICOPTERS			(Turbomeca Astazou)
AIRBUS	SA 342 J	Gazelle	Eurocopter SA 342 J
HELICOPTER	407		(Turbomeca Astazou XIV)
BELL HELICOPTER CANADA	407		Bell 407 (RR Corp 250)
BELL HELICOPTER	206A		Agusta AB206 / Bell 206 (RR Corp 250)
TEXTRON CANADA			
LIMITED			



SUBGRO	UP 2b: SINGLE TU	JRBINE-ENGINE	E HELICOPTERS (other than those in Group 1)	
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
BELL HELICOPTER TEXTRON CANADA LIMITED	206A-1		Agusta AB206 / Bell 206 (RR Corp 250)	
BELL HELICOPTER TEXTRON CANADA LIMITED	206B		Agusta AB206 / Bell 206 (RR Corp 250)	
BELL HELICOPTER TEXTRON CANADA LIMITED	206L		Agusta AB206 / Bell 206 (RR Corp 250)	
BELL HELICOPTER TEXTRON CANADA LIMITED	206L-1		Agusta AB206 / Bell 206 (RR Corp 250)	
BELL HELICOPTER TEXTRON CANADA LIMITED	206L-3		Agusta AB206 / Bell 206 (RR Corp 250)	
BELL HELICOPTER TEXTRON CANADA LIMITED	206L-4		Agusta AB206 / Bell 206 (RR Corp 250)	
BELL HELICOPTER TEXTRON CANADA LIMITED	505		Bell 505 (Safran Arrius 2R)	
LEONARDO S.p.A.	A119	Koala	Agusta A119/ Agusta AW119MkII (PWC PT6)	
LEONARDO S.p.A.	AW119MkII	Koala enhanced AW119Ke	Agusta A119/ Agusta AW119MkII (PWC PT6)	
LEONARDO S.p.A.	AB206 A		Agusta AB206 / Bell 206 (RR Corp 250)	
LEONARDO S.p.A.	AB206 B		Agusta AB206 / Bell 206 (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	369D		MD Helicopters 369 Series / SEI NH-500D (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	369E		MD Helicopters 369 Series / SEI NH-500D (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	369FF		MD Helicopters 369 Series / SEI NH-500D (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	369H		MD Helicopters 369 Series / SEI NH-500D (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	369HE		MD Helicopters 369 Series / SEI NH-500D (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	369HM		MD Helicopters 369 Series / SEI NH-500D (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	369HS		MD Helicopters 369 Series / SEI NH-500D (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	600N	HU60	MD Helicopters 500N/600N AMD500N (RR Corp 250)	
MD HELICOPTERS INC. (MDHI)	500N		MD Helicopters 500N/600N AMD500N (RR Corp 250)	
Mecaer Aviation Group	NH-500D		MD Helicopters 369 Series / SEI NH-500D (RR Corp 250)	

SUBGRO	UP 2b: SINGLE TU	JRBINE-ENGINE	HELICOPTERS (other than those in Group 1	L)
TC Holder	Model	Com. des.	Part-66 type rating endorsement	Note
Mecaer Aviation Group	NH-AMD500N		MD Helicopters 500N/600N AMD500N (RR Corp 250)	
PZL-ŚWIDNIK	SW-4		PZL SW-4 (RR Corp 250)	
ROBINSON HELICOPTER COMPANY	R 66		Robinson R66 (RR Corp 250)	
Schweizer RSG LLC	269D		Schweizer 269D (RR Corp 250)	
THE ENSTROM HELICOPTER CORPORATION	480		Enstrom 480 (RR Corp 250)	
THE ENSTROM HELICOPTER CORPORATION	480B		Enstrom 480 (RR Corp 250)	



## SUBGROUP 2c: SINGLE PISTON-ENGINE HELICOPTERS (other than those in Group 1)

ED Decision 2019/024/R9/024/R

SUBGROUP	2c: SINGLE PI	STON-ENGINE HE	ELICOPTERS (other than those in Group 1	)
TC Holder	Model	Comm. Des.	Part-66 type rating endorsement	Note
ANTARES	SH-4		Silvercraft SH-4 (Franklin)	
INTERNATIONAL				
(Aircraft with SAS)				
BRANTLY	B-2	Military YHO	Brantly B2 (Lycoming)	
INTERNATIONAL, INC.		3BR		
BRANTLY	305		Brantly B2 (Lycoming)	
INTERNATIONAL, INC.			- 4 6	
BRANTLY INTERNATIONAL, INC.	B-2A		Brantly B2 (Lycoming)	
BRANTLY	B-2B		Brantly B2 (Lycoming)	
INTERNATIONAL, INC.	D-2D		Brantiy B2 (Lyconning)	
HELICOPTÈRES	CABRI G2	Cabri	Cabri G2 (Lycoming)	
GUIMBAL	CADAT GZ	Cubii	casii de (eyconning)	
Mecaer Aviation	NH-300C	Model 300C	Mecaer 269/300 (Lycoming)	
Group			, , , , , , , , , , , , , , , , , , , ,	
ROBINSON	R 22		Robinson R22/R44 Series (Lycoming)	
HELICOPTER				
COMPANY				
ROBINSON	R 44	Astro Raven	Robinson R22/R44 Series (Lycoming)	
HELICOPTER				
COMPANY	D22 41 1		D. 1: DOD/D446 : // : \	
ROBINSON HELICOPTER	R22 Alpha		Robinson R22/R44 Series (Lycoming)	
COMPANY				
ROBINSON	R22 Beta		Robinson R22/R44 Series (Lycoming)	
HELICOPTER				
COMPANY				
ROBINSON	R22		Robinson R22/R44 Series (Lycoming)	
HELICOPTER	Mariner			
COMPANY				
ROBINSON	R44 II	Raven II	Robinson R22/R44 Series (Lycoming)	
HELICOPTER COMPANY				
SIKORSKY AIRCRAFT	S-58B		Sikorsky S-58 (Wright Cyclone)	
SIKORSKY AIRCRAFT	S-58C		Sikorsky S-58 (Wright Cyclone)	
SIKORSKY AIRCRAFT	S-58D		Sikorsky S-58 (Wright Cyclone)	
SIKORSKY AIRCRAFT	S-58E		Sikorsky S-58 (Wright Cyclone)	
SIKORSKY AIRCRAFT	S-58F		Sikorsky S-58 (Wright Cyclone)	
SIKORSKY AIRCRAFT	S-58G		Sikorsky S-58 (Wright Cyclone)	
SIKORSKY AIRCRAFT	S-58H		Sikorsky S-58 (Wright Cyclone)	
SIKORSKY AIRCRAFT	S-58J		Sikorsky S-58 (Wright Cyclone)	
		Madal 2000		
Schweizer RSG LLC	269A	Model 300C	Schweizer 269/300 (Lycoming)	
Schweizer RSG LLC	269B	Model 300C	Schweizer 269/300 (Lycoming)	
Schweizer RSG LLC	269C	Model 300C	Schweizer 269/300 (Lycoming)	
Schweizer RSG LLC	269C-1	Model 300C	Schweizer 269/300 (Lycoming)	

SUBGROU	P 2c: SINGLE PI	STON-ENGINE HE	ELICOPTERS (other than those in Group 1	.)
TC Holder	Model	Comm. Des.	Part-66 type rating endorsement	Note
THE ENSTROM HELICOPTER CORPORATION	280		Enstrom F-28/280 (Lycoming)	
THE ENSTROM HELICOPTER CORPORATION	280C		Enstrom F-28/280 (Lycoming)	
THE ENSTROM HELICOPTER CORPORATION	280F		Enstrom F-28/280 (Lycoming)	
THE ENSTROM HELICOPTER CORPORATION	280FX		Enstrom F-28/280 (Lycoming)	
THE ENSTROM HELICOPTER CORPORATION	F-28A		Enstrom F-28/280 (Lycoming)	
THE ENSTROM HELICOPTER CORPORATION	F-28C		Enstrom F-28/280 (Lycoming)	
THE ENSTROM HELICOPTER CORPORATION	F-28C-2		Enstrom F-28/280 (Lycoming)	
THE ENSTROM HELICOPTER CORPORATION	F-28F		Enstrom F-28/280 (Lycoming)	
THE ENSTROM HELICOPTER CORPORATION	F-28F-R		Enstrom F-28/280 (Lycoming)	



### **GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)**

ED Decision 2020/002/R

(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
remoider	Wiodei	structure	type rating endorsement	11010	≤2T	>2T
AD Holdings, Inc	T-211	Metal	Thorp T-211 (Continental)	ELA1	Χ	
AD Holdings, Inc	T-211	Metal	Thorp T-211 (Jabiru)	ELA1	Χ	
AERO Sp.z.o.o	AT-3 R100	Metal	Aero AT-3 (Rotax)	ELA1	Χ	
AEROCLUBUL ROMANIEI	IAR-46	Metal	IAR-46 (Rotax)	ELA1	X	
AEROCLUBUL ROMANIEI	IAR-46S	Metal	IAR-46 (Rotax)	ELA1	X	
Aerospool, spol. s r. o.	Club	Composite	Aerospool Club (Rotax)	ELA1	X	
AEROSTAR AIRCRAFT Corporation	PA-60-601P (Aerostar 601P)	Metal + Pressurised	Piper PA-60/61 Pressurised (Lycoming)			X
AEROSTAR AIRCRAFT Corporation	PA-60-602P (Aerostar 602P)	Metal + Pressurised	Piper PA-60/61 Pressurised (Lycoming)			X
AEROSTAR AIRCRAFT Corporation	PA-60-700P (Aerostar 700P)	Metal + Pressurised	Piper PA-60/61 Pressurised (Lycoming)			X
AEROSTAR AIRCRAFT Corporation	PA-60-600 (Aerostar 600)	Metal	Piper PA-60/61 Series (Lycoming)			X
AEROSTAR AIRCRAFT Corporation	PA-60-601 (Aerostar 601)	Metal	Piper PA-60/61 Series (Lycoming)			X
AIR TRACTOR, INC.	AT-250	Metal	Air Tractor AT-250/300 (PW R985)			X
AIR TRACTOR, INC.	AT-300	Metal	Air Tractor AT-250/300 (PW R985)			X
AIR TRACTOR, INC.	AT-301	Metal	Air Tractor AT-301/401/501 (PW R1340)			X
AIR TRACTOR, INC.	AT-401	Metal	Air Tractor AT-301/401/501 (PW R1340)			X
AIR TRACTOR, INC.	AT-401B	Metal	Air Tractor AT-301/401/501 (PW R1340)			X
AIR TRACTOR, INC.	AT-501	Metal	Air Tractor AT-301/401/501 (PW R1340)			X
AIR TRACTOR, INC.	AT-401A	Metal	Air Tractor AT-401 (PZL-3S)			X
AIRBUS DEFENCE AND SPACE GmbH	Bölkow 207	Wood	Bölkow BO 207 (Lycoming)	ELA1	X	
AIRBUS DEFENCE AND SPACE GmbH	Bölkow 207T	Wood	Bölkow BO 207 (Lycoming)	ELA1	X	



(	GROUP 3: PISTO	N-ENGINE AERC	PLANES (other than those in Gro	up 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
TC Holder	Wiodei	structure	type rating endorsement	Note	≤2T	>2T
AIRBUS DEFENCE AND SPACE GmbH	Bölkow BO 208 C Junior	Metal	Bölkow BO 208 (Continental)	ELA1	X	
AIRBUS DEFENCE AND SPACE GmbH	Bölkow Junior	Metal	Bölkow BO 208 (Continental)	ELA1	X	
AIRBUS DEFENCE AND SPACE GmbH	Bölkow BO 209 S	Metal	Bölkow BO 209 (Continental)	ELA1	X	
AIRBUS DEFENCE AND SPACE GmbH	Bölkow BO 209 Monsun	Metal	Bölkow BO 209 (Lycoming)	ELA1	X	
AIRBUS DEFENCE AND SPACE GmbH	223 A1	Metal	SIAT 223 (Lycoming)	ELA1	X	
AIRBUS DEFENCE AND SPACE GmbH	223 K1	Metal	SIAT 223 (Lycoming)	ELA1	Х	
AIRBUS DEFENCE AND SPACE GmbH	223 V	Metal	SIAT 223 (Lycoming)	ELA1	X	
AIRCRAFT Design and Certification	D4 Fascination	Composite	(WD) D4 Fascination (Rotax)	ELA1	Х	
AIRCRAFT INDUSTRIES	L-200 A	Metal	Let L 200 (LOM)	ELA2	Х	
AIRCRAFT INDUSTRIES	L-200 D	Metal	Let L 200 (LOM)	ELA2	Х	
AIRCRAFT INDUSTRIES	Z-37-2	Metal tubing Fabric	Let Z-37 Series (LOM)	ELA2	Х	
AIRCRAFT INDUSTRIES	Z-37A	Metal tubing Fabric	Let Z-37 Series (LOM)	ELA2	Х	
AIRCRAFT INDUSTRIES	Z-37A-2	Metal tubing Fabric	Let Z-37 Series (LOM)	ELA2	X	
ALEXANDRIA Aircraft LLC	17-30	Wood + Metal tubing Fabric	Bellanca 17-30 (Continental)	ELA2	Х	
ALEXANDRIA Aircraft LLC	17-30A	Wood + Metal tubing Fabric	Bellanca 17-30 (Continental)	ELA2	X	
ALEXANDRIA Aircraft LLC	17-31	Wood + Metal tubing Fabric	Bellanca 17-31 Series (Lycoming)	ELA2	X	
ALEXANDRIA Aircraft LLC	17-31A	Wood + Metal tubing Fabric	Bellanca 17-31 Series (Lycoming)	ELA2	Х	
ALEXANDRIA Aircraft LLC	17-31ATC	Wood + Metal tubing Fabric	Bellanca 17-31 Series (Lycoming)	ELA2	X	



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)							
TC Holder	Model	Type of	Part-66	Note	MT	ОМ	
TC Holder	IVIOGEI	structure	type rating endorsement	Note	≤2T	>2T	
ALEXANDRIA Aircraft LLC	17-31TC	Wood + Metal tubing Fabric	Bellanca 17-31 Series (Lycoming)	ELA2	X		
ALLIED AG CAT Productions	G-164	Metal	Grumman G-164 (Continental)	ELA2	X		
ALLIED AG CAT Productions	G-164B	Metal	Grumman G-164 (Continental)	ELA2	X		
ALLIED AG CAT Productions	G-164B with 73' wing gap	Metal	Grumman G-164 (Continental)	ELA2	X		
ALLIED AG CAT Productions	G-164B-15T	Metal	Grumman G-164 (Continental)	ELA2	X		
ALLIED AG CAT Productions	G-164B-20T	Metal	Grumman G-164 (Continental)	ELA2	X		
ALLIED AG CAT Productions	G-164B-34T	Metal	Grumman G-164 (Continental)	ELA2	X		
ALLIED AG CAT Productions	G-164	Metal	Grumman G-164 (Jacobs)	ELA2	X		
ALLIED AG CAT Productions	G-164	Metal	Grumman G-164 (PW R Series)	ELA2	X		
ALLIED AG CAT Productions	G-164A	Metal	Grumman G-164 (PW R Series)	ELA2	X		
ALLIED AG CAT Productions	G-164B	Metal	Grumman G-164 (PW R Series)	ELA2	X		
ALLIED AG CAT Productions	G-164B with 73' wing gap	Metal	Grumman G-164 (PW R Series)	ELA2	X		
ALLIED AG CAT Productions	G-164B-15T	Metal	Grumman G-164 (PW R Series)	ELA2	X		
ALLIED AG CAT Productions	G-164B-20T	Metal	Grumman G-164 (PW R Series)	ELA2	X		
ALLIED AG CAT Productions	G-164B-34T	Metal	Grumman G-164 (PW R Series)	ELA2	X		
ALLIED AG CAT Productions	G-164C	Metal	Grumman G-164 (PW R Series)	ELA2	X		
ALPHA AVIATION	HR 200-100	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	X		
ALPHA AVIATION	HR 200-100 S	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	X		
ALPHA AVIATION	HR 200-120	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	X		
ALPHA AVIATION	HR 200-120 B	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	X		
ALPHA AVIATION	HR 200-160	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	X		
ALPHA AVIATION	R 2100	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	X		
ALPHA AVIATION	R 2100A	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	X		



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
i c Holdel	Model	structure	type rating endorsement	Note	≤2T	>2T
ALPHA AVIATION	R 2112	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	Х	
ALPHA AVIATION	R 2120U	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	Х	
ALPHA AVIATION	R 2160	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	Х	
ALPHA AVIATION	R 2160D	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	Х	
ALPHA AVIATION	R 2160i	Metal	Robin HR 200/ R 2000 series (Lycoming)	ELA1	X	
AMERICAN CHAMPION Aircraft Corp.	7GCAA	Wood + Metal tubing Fabric	Champion 7 (Superior)	ELA1	X	
AMERICAN CHAMPION Aircraft Corp.	7GCBC (180HP)	Wood + Metal tubing Fabric	Champion 7 (Superior)	ELA1	X	
AMERICAN CHAMPION Aircraft Corp.	7ECA	Wood + Metal tubing Fabric	Champion 7 (Lycoming)	ELA1	Х	
AMERICAN CHAMPION Aircraft Corp.	7GCAA	Wood + Metal tubing Fabric	Champion 7 (Lycoming)	ELA1	X	
AMERICAN CHAMPION Aircraft Corp.	7GCBC (160HP)	Wood + Metal tubing Fabric	Champion 7 (Lycoming)	ELA1	X	
AMERICAN CHAMPION Aircraft Corp.	8GCBC	Wood + Metal tubing Fabric	Champion 8 Series (Lycoming)	ELA1	X	
AMERICAN CHAMPION Aircraft Corp.	8KCAB	Wood + Metal tubing Fabric	Champion 8 Series (Lycoming)	ELA1	X	
AQUILA Aviation by Excellence AG	AQUILA AT01	Composite	Aquila AT01 (Rotax)	ELA1	Х	
AQUILA Aviation by Excellence AG	AQUILA AT01-100	Composite	Aquila AT01 (Rotax)	ELA1	X	
AUGUSTAIR, INC.	VARGA 2180	Metal	Varga (Lycoming)	ELA1	Χ	
AUGUSTAIR, INC.	VARGA 2150A	Metal	Varga (Lycoming)	ELA1	X	
AUGUSTAIR, INC.	VARGA 2150	Metal	Varga (Lycoming)	ELA1	Χ	
AVIAT AIRCRAFT INC	A-1	Metal	Aviat Husky A (Lycoming)	ELA1	X	
AVIAT AIRCRAFT INC	A-1A	Metal	Aviat Husky A (Lycoming)	ELA1	X	
AVIAT AIRCRAFT INC	A-1B	Metal	Aviat Husky A (Lycoming)	ELA1	X	
AVIAT AIRCRAFT INC	A-1C-180	Metal	Aviat Husky A (Lycoming)	ELA1	Х	



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
i C Holder	iviodei	structure	type rating endorsement	Note	≤2T	>2T
AVIAT AIRCRAFT INC	S-1S	Wood + Metal tubing Fabric	Pitts S-1 Series (Lycoming)	ELA1	X	
AVIAT AIRCRAFT INC	S-2A	Wood + Metal tubing Fabric	Pitts S-2 Series (Lycoming)	ELA1	X	
AVIAT AIRCRAFT INC	S-2B	Wood + Metal tubing Fabric	Pitts S-2 Series (Lycoming)	ELA1	Х	
AVIAT AIRCRAFT INC	S-2C	Wood + Metal tubing Fabric	Pitts S-2 Series (Lycoming)	ELA1	X	
AVIAT AIRCRAFT INC	S-2S	Wood + Metal tubing Fabric	Pitts S-2 Series (Lycoming)	ELA1	X	
BEECHCRAFT Corporation	19A	Metal	Beech 19 Series (Lycoming)	ELA2	Х	
BEECHCRAFT Corporation	B19	Metal	Beech 19 Series (Lycoming)	ELA2	X	
BEECHCRAFT Corporation	M19A	Metal	Beech 19 Series (Lycoming)	ELA2	Х	
BEECHCRAFT Corporation	23	Metal	Beech 23 Series (Lycoming)	ELA2	Х	
BEECHCRAFT Corporation	A23-19	Metal	Beech 23 Series (Lycoming)	ELA2	Х	
BEECHCRAFT Corporation	A23-24	Metal	Beech 23 Series (Lycoming)	ELA2	X	
BEECHCRAFT Corporation	B23	Metal	Beech 23 Series (Lycoming)	ELA2	X	
BEECHCRAFT Corporation	C23	Metal	Beech 23 Series (Lycoming)	ELA2	X	
BEECHCRAFT Corporation	A24	Metal	Beech 24 Series (Lycoming)	ELA2	X	
BEECHCRAFT Corporation	A24R	Metal	Beech 24 Series (Lycoming)	ELA2	X	
BEECHCRAFT Corporation	B24R	Metal	Beech 24 Series (Lycoming)	ELA2	X	
BEECHCRAFT Corporation	C24R	Metal	Beech 24 Series (Lycoming)	ELA2	X	
BEECHCRAFT Corporation	50	Metal	Beech 50 Series (Lycoming)			X
BEECHCRAFT Corporation	B50	Metal	Beech 50 Series (Lycoming)			X
BEECHCRAFT Corporation	C50	Metal	Beech 50 Series (Lycoming)			X
BEECHCRAFT Corporation	D50	Metal	Beech 50 Series (Lycoming)			X



O.I.O.C	JP 3: PISTON-	-ENGINE AERO	PLANES (other than those in Grou	p 1)		
TC Holdon	Madal	Type of	Part-66	Note	MT	MC
TC Holder	Model	structure	type rating endorsement	Note	≤2T	>2T
BEECHCRAFT D50	0A /	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT D50	0B <i>I</i>	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT D50	0C /	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT D50	0E /	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT D50	0E-5990	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT E50	)	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT F50	)	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT G50	0	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT H50	0 1	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT J50	)	Metal	Beech 50 Series (Lycoming)			Χ
Corporation						
BEECHCRAFT 58F		Metal +	Beech 58P (Continental)			Χ
Corporation		Pressurised				
BEECHCRAFT 58F		Metal +	Beech 58P (Continental)			Χ
Corporation		Pressurised				
BEECHCRAFT 58T	rc i	Metal	Beech 58TC (Continental)			Х
Corporation			/			
BEECHCRAFT 58T	TCA I	Metal	Beech 58TC (Continental)			Х
Corporation		0.4	D 1 50 5 : // : \			
BEECHCRAFT 60 Corporation	'	Metal	Beech 60 Series (Lycoming)			Х
	0	0.4 - + - 1	Decak CO Carina (Laramina)			V
BEECHCRAFT A60 Corporation	J	Metal	Beech 60 Series (Lycoming)			Χ
BEECHCRAFT B60	n .	Metal	Beech 60 Series (Lycoming)			Χ
Corporation		ivietui	beech oo series (Lycoming)			^
BEECHCRAFT 76		Metal	Beech 76 (Lycoming)	ELA2	Х	
Corporation		victur	Decem 70 (Lycoming)	LLAL	,	
BEECHCRAFT 77		Metal	Beech 77 (Lycoming)	ELA2	Х	
Corporation				\_	,,	
BEECHCRAFT A23	3	Metal	Beech A23 (Continental)	ELA2	Χ	
Corporation			(5511611611611)			
BEECHCRAFT A23	3A .	Metal	Beech A23 (Continental)	ELA2	Χ	
Corporation	,		,			
BERIEV Be	103	Metal	Beriev Be-103 (Continental)			Х
		Composite	Ruschmeyer R90-230RG	ELA2	Χ	
Hager/Anatoli			(Lycoming)	,		
Stobbe GbR						



(	ROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
	Model	structure	type rating endorsement		≤2T	>2T
BLACKSHAPE	BS 115	Composite	Blackshape (Rotax)	ELA1	Χ	
S.p.A.	DNI 24 MAADIK	A d a t a l	Deither Newson BN 24 March III			V
B-N GROUP Ltd. (Britten-Norman)	BN.2A MARK	Metal	Britten-Norman BN.2A Mark III (Lycoming)			X
B-N GROUP Ltd.	BN.2A MARK	Metal	Britten-Norman BN.2A Mark III			Х
(Britten-Norman)	III-1		(Lycoming)			
B-N GROUP Ltd.	BN.2A MARK	Metal	Britten-Norman BN.2A Mark III			Χ
(Britten-Norman)	III-2		(Lycoming)			
B-N GROUP Ltd.	BN.2A MARK	Metal	Britten-Norman BN.2A Mark III			X
(Britten-Norman)	III-3	A.d. at al	(Lycoming)			V
B-N GROUP Ltd. (Britten-Norman)	BN2	Metal	Britten-Norman BN2A Series (Lycoming)			Х
B-N GROUP Ltd.	BN2A	Metal	Britten-Norman BN2A Series			Х
(Britten-Norman)			(Lycoming)			
B-N GROUP Ltd.	BN2A-2	Metal	Britten-Norman BN2A Series			Χ
(Britten-Norman)			(Lycoming)			
B-N GROUP Ltd.	BN2A-20	Metal	Britten-Norman BN2A Series			Χ
(Britten-Norman)	DNI24 24		(Lycoming)			
B-N GROUP Ltd. (Britten-Norman)	BN2A-21	Metal	Britten-Norman BN2A Series (Lycoming)			Х
B-N GROUP Ltd.	BN2A-26	Metal	Britten-Norman BN2A Series			Х
(Britten-Norman)	51127120	weed.	(Lycoming)			
B-N GROUP Ltd.	BN2A-27	Metal	Britten-Norman BN2A Series			Χ
(Britten-Norman)			(Lycoming)			
B-N GROUP Ltd.	BN2A-3	Metal	Britten-Norman BN2A Series			Χ
(Britten-Norman)	DNI24 C		(Lycoming)			
B-N GROUP Ltd. (Britten-Norman)	BN2A-6	Metal	Britten-Norman BN2A Series (Lycoming)			Х
B-N GROUP Ltd.	BN2A-7	Metal	Britten-Norman BN2A Series			Х
(Britten-Norman)	2112111		(Lycoming)			
B-N GROUP Ltd.	BN2A-8	Metal	Britten-Norman BN2A Series			Χ
(Britten-Norman)			(Lycoming)			
B-N GROUP Ltd.	BN2A-9	Metal	Britten-Norman BN2A Series			Χ
(Britten-Norman)	DN2D 20	A d a t a l	(Lycoming)			V
B-N GROUP Ltd. (Britten-Norman)	BN2B-20	Metal	Britten-Norman BN2B Series (Lycoming)			Х
B-N GROUP Ltd.	BN2B-21	Metal	Britten-Norman BN2B Series			Х
(Britten-Norman)	J.,		(Lycoming)			
B-N GROUP Ltd.	BN2B-26	Metal	Britten-Norman BN2B Series			Χ
(Britten-Norman)			(Lycoming)			
B-N GROUP Ltd.	BN2B-27	Metal	Britten-Norman BN2B Series			Χ
(Britten-Norman)	DCOC	0.4-4-1	(Lycoming)	EL 6.4	v	
Breezer Aircraft GmbH & Co. KG	B600	Metal	Breezer B600 (Rotax)	ELA1	Х	
CEAPR	CAP10	Wood	CAP 10 (Lycoming)	ELA1	Х	
CEAPR	CAP10B	Wood	CAP 10 (Lycoming)	ELA1	X	
CEAPK	CAPIUB	vvoou	CAP 10 (Lycoming)	CLAI	٨	



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
TC Holder	Wiodei	structure	type rating endorsement	Note	≤2T	>2T
CEAPR	CAP20	Wood	CAP 20/21 (Lycoming)	ELA1	X	
CEAPR	CAP20L/S20 0	Wood	CAP 20/21 (Lycoming)	ELA1	X	
CEAPR	CAP21	Wood	CAP 20/21 (Lycoming)	ELA1	Χ	
CEAPR	CAP231	Wood	CAP 230 Series (Lycoming)	ELA1	Χ	
CEAPR	CAP231EX	Composite + Wood	CAP 230 Series (Lycoming)	ELA1	X	
CEAPR	CAP232	Composite + Wood	CAP 230 Series (Lycoming)	ELA1	X	
CEAPR	CAP230	Wood	CAP 230 Series (Lycoming)	ELA1	Χ	
CEAPR	ATL	Wood + Composite	Robin ATL / ATL S (JPX 4T60)	ELA1	X	
CEAPR	ATL S	Wood + Composite	Robin ATL / ATL S (JPX 4T60)	ELA1	X	
CEAPR	ATL L	Wood + Composite	Robin ATL L (Limbach L2000)	ELA1	X	
CEAPR	DR 200	Wood	Robin DR 200 series (Potez)	ELA1	Χ	
CEAPR	DR 220	Wood	Robin DR 220 series (Continental)	ELA1	X	
CEAPR	DR 220 A	Wood	Robin DR 220 series (Continental)	ELA1	X	
CEAPR	DR 220 AB	Wood	Robin DR 220 series (Continental)	ELA1	X	
CEAPR	DR 220 B	Wood	Robin DR 220 series (Continental)	ELA1	X	
CEAPR	DR 221	Wood	Robin DR 221 series (Lycoming)	ELA1	Χ	
CEAPR	DR 221 B	Wood	Robin DR 221 series (Lycoming)	ELA1	Χ	
CEAPR	DR 250	Wood	Robin DR 250 series (Lycoming)	ELA1	Χ	
CEAPR	DR 250 B	Wood	Robin DR 250 series (Lycoming)	ELA1	Χ	
CEAPR	DR 250 B- 160	Wood	Robin DR 250 series (Lycoming)	ELA1	X	
CEAPR	DR 250-160	Wood	Robin DR 250 series (Lycoming)	ELA1	Χ	
CEAPR	DR 253	Wood	Robin DR 253 series (Lycoming)	ELA1	Χ	
CEAPR	DR 253 B	Wood	Robin DR 253 series (Lycoming)	ELA1	Χ	
CEAPR	DR 300/108	Wood	Robin DR 300 series (Lycoming)	ELA1	X	
CEAPR	DR 300/120	Wood	Robin DR 300 series (Lycoming)	ELA1	Χ	
CEAPR	DR 300/125	Wood	Robin DR 300 series (Lycoming)	ELA1	Χ	
CEAPR	DR 300/140	Wood	Robin DR 300 series (Lycoming)	ELA1	Χ	
CEAPR	DR 300/180 R	Wood	Robin DR 300 series (Lycoming)	ELA1	X	
CEAPR	DR 315	Wood	Robin DR 300 series (Lycoming)	ELA1	X	
CEAPR	DR 340	Wood	Robin DR 300 series (Lycoming)	ELA1	Χ	
CEAPR	DR 360	Wood	Robin DR 300 series (Lycoming)	ELA1	Χ	
CEAPR	DR 380	Wood	Robin DR 300 series (Lycoming)	ELA1	Χ	



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)								
TC Holder	Model	Type of	Part-66	Note	MT	ОМ		
Te fiolaei		structure	type rating endorsement	11010	≤2T	>2T		
CEAPR	DR 400/125 i	Wood	Robin DR 400 series (Continental)	ELA1	X			
CEAPR	DR 400/200 I	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/100	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/120	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/120 A	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/120 D	Wood	Robin DR 400 series (Lycoming)	ELA1	X			
CEAPR	DR 400/125	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/140	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/140 B	Wood	Robin DR 400 series (Lycoming)	ELA1	X			
CEAPR	DR 400/160	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/160 D	Wood	Robin DR 400 series (Lycoming)	ELA1	X			
CEAPR	DR 400/180	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/180 R	Wood	Robin DR 400 series (Lycoming)	ELA1	X			
CEAPR	DR 400/180 S	Wood	Robin DR 400 series (Lycoming)	ELA1	X			
CEAPR	DR 400/2+2	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/200 R	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/500	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/NGL	Wood	Robin DR 400 series (Lycoming)	ELA1	Χ			
CEAPR	DR 400/RP	Wood	Robin DR 400RP (Porsche)	ELA1	Χ			
CEAPR	HR 100-210	Metal	Robin HR 100 series (Continental)	ELA1	X			
CEAPR	HR 100-210 D	Metal	Robin HR 100 series (Continental)	ELA1	X			
CEAPR	HR 100-285 C	Metal	Robin HR 100 series (Continental)	ELA1	X			
CEAPR	HR 100-285 TIARA	Metal	Robin HR 100 series (Continental)	ELA1	X			
CEAPR	HR 100-200	Metal	Robin HR 100 series (Lycoming)	ELA1	Χ			
CEAPR	HR 100-200 B	Metal	Robin HR 100 series (Lycoming)	ELA1	X			
CEAPR	HR 100-250 TR	Metal	Robin HR 100 series (Lycoming)	ELA1	X			
CEAPR	R 1180 T	Metal	Robin R 1180 series (Lycoming)	ELA1	Χ			
CEAPR	R 1180 TD	Metal	Robin R 1180 series (Lycoming)	ELA1	Χ			
CEAPR	R 3000/100	Metal	Robin R 3000 series (Lycoming)	ELA1	Χ			
CEAPR	R 3000/120	Metal	Robin R 3000 series (Lycoming)	ELA1	Χ			



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)									
TC Holder	Model	Type of	Part-66	Note	MT	ОМ			
10110100	model	structure	type rating endorsement	11010	≤2T	>2T			
CEAPR	R 3000/120 D	Metal	Robin R 3000 series (Lycoming)	ELA1	X				
CEAPR	R 3000/140	Metal	Robin R 3000 series (Lycoming)	ELA1	Χ				
CEAPR	R 3000/160	Metal	Robin R 3000 series (Lycoming)	ELA1	Χ				
CEAPR	R 3000/160 S	Metal	Robin R 3000 series (Lycoming)	ELA1	X				
CEAPR	R 3000/180	Metal	Robin R 3000 series (Lycoming)	ELA1	Χ				
CESSNA AIRCRAFT Company	F177RG	Metal	Cessna 177 Series (Lycoming)	ELA2	X				
CESSNA AIRCRAFT Company	F150F	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F150G	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F150H	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F150J	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F150K	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F150L	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F150M	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	FA150K	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	FA150L	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	FA150M	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	FRA150L	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	FRA150M	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F152	Metal	Cessna/Reims-Cessna 152/F152 Series (Lycoming)	ELA1	X				
CESSNA AIRCRAFT Company	FA152	Metal	Cessna/Reims-Cessna 152/F152 Series (Lycoming)	ELA1	X				
CESSNA AIRCRAFT Company	F172D	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F172E	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F172F	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
CESSNA AIRCRAFT Company	F172G	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				



	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
i C Holdel	Model	structure	type rating endorsement	Note	≤2T	>2T
CESSNA AIRCRAFT	F172H	Metal	Cessna/Reims-Cessna	ELA1	Χ	
Company			172/F172 Series (Continental)			
CESSNA AIRCRAFT Company	F172K	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	Х	
CESSNA AIRCRAFT	FP172D	Metal	Cessna/Reims-Cessna	ELA1	Х	
Company	171/20	Wetai	172/F172 Series (Continental)	LLAI	^	
CESSNA AIRCRAFT	FR172E	Metal	Cessna/Reims-Cessna	ELA2	Х	
Company			172/F172 Series (Continental)			
CESSNA AIRCRAFT	FR172F	Metal	Cessna/Reims-Cessna	ELA2	Χ	
Company			172/F172 Series (Continental)			
CESSNA AIRCRAFT	FR172G	Metal	Cessna/Reims-Cessna	ELA2	Х	
Company	504704		172/F172 Series (Continental)	E1.40	.,	
CESSNA AIRCRAFT Company	FR172H	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA2	Х	
CESSNA AIRCRAFT	FR172J	Metal	Cessna/Reims-Cessna	ELA2	Х	
Company	I IVI / ZJ	WIELUI	172/F172 Series (Continental)	LLAZ	^	
CESSNA AIRCRAFT	FR172K	Metal	Cessna/Reims-Cessna	ELA2	Х	
Company			172/F172 Series (Continental)			
CESSNA AIRCRAFT	F172L	Metal	Cessna/Reims-Cessna	ELA1	X	
Company			172/F172 Series (Lycoming)			
CESSNA AIRCRAFT	F172M	Metal	Cessna/Reims-Cessna	ELA1	X	
Company	F472N	0.40401	172/F172 Series (Lycoming)	FI A 1	V	
CESSNA AIRCRAFT Company	F172N	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	Χ	
CESSNA AIRCRAFT	F172P	Metal	Cessna/Reims-Cessna	ELA1	Х	
Company			172/F172 Series (Lycoming)			
CESSNA AIRCRAFT	F182P	Metal	Cessna/Reims-Cessna	ELA2	Χ	
Company			182/F182 Series (Continental)			
CESSNA AIRCRAFT	F182Q	Metal	Cessna/Reims-Cessna	ELA2	Χ	
Company	ED463		182/F182 Series (Continental)	FLAG	.,	
CESSNA AIRCRAFT Company	FR182	Metal	Cessna/Reims-Cessna 182/F182 Series (Lycoming)	ELA2	Х	
CESSNA AIRCRAFT	F337E	Metal	Cessna/Reims-Cessna 337			Х
Company	1337L	IVICTUI	Series (Continental)			^
			(not pressurised)			
CESSNA AIRCRAFT	F337F	Metal	Cessna/Reims-Cessna 337			Χ
Company			Series (Continental)			
CECCNIA AIRCRA	F2270	0.4-1	(not pressurised)			V
CESSNA AIRCRAFT Company	F337G	Metal	Cessna/Reims-Cessna 337 Series (Continental)			Х
			(not pressurised)			
CESSNA AIRCRAFT	F337H	Metal	Cessna/Reims-Cessna 337			Х
Company			Series (Continental)			
			(not pressurised)			
CESSNA AIRCRAFT	FT337E	Metal	Cessna/Reims-Cessna 337			Χ
Company			Series (Continental) (not pressurised)			
			(Hot pressurised)			



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)								
TC Holder	Model	Type of	Part-66	Note	MT	ОМ		
		structure	type rating endorsement		≤2T	>2T		
CESSNA AIRCRAFT Company	FT337F	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X		
CESSNA AIRCRAFT Company	FT337GP	Metal + Pressurised	Cessna/Reims-Cessna 337 Series (Continental) (pressurised)			X		
CESSNA AIRCRAFT Company	FT337HP	Metal + Pressurised	Cessna/Reims-Cessna 337 Series (Continental) (pressurised)			X		
CIRRUS Design Corporation	SR20	Composite	Cirrus SR20 / SR22 / SR22T Series (Continental)	ELA2	Х			
CIRRUS Design Corporation	SR22	Composite	Cirrus SR20 / SR22 / SR22T Series (Continental)	ELA2	Х			
CIRRUS Design Corporation	SR22T	Composite	Cirrus SR20 / SR22 / SR22T Series (Continental)	ELA2	X			
COMMANDER PREMIER AIRCRAFT CO.	112	Metal	Commander 112 (Lycoming)	ELA1	X			
COMMANDER PREMIER AIRCRAFT CO.	112B	Metal	Commander 112 (Lycoming)	ELA1	Х			
COMMANDER PREMIER AIRCRAFT CO.	112TC	Metal	Commander 112 (Lycoming)	ELA1	X			
COMMANDER PREMIER AIRCRAFT CO.	112TCA	Metal	Commander 112 (Lycoming)	ELA1	X			
COMMANDER PREMIER AIRCRAFT CO.	114	Metal	Commander 114 (Lycoming)	ELA2	X			
COMMANDER PREMIER AIRCRAFT CO.	114A	Metal	Commander 114 (Lycoming)	ELA2	X			
COMMANDER PREMIER AIRCRAFT CO.	114B	Metal	Commander 114 (Lycoming)	ELA2	X			
COMMANDER PREMIER AIRCRAFT CO.	114TC	Metal	Commander 114 (Lycoming)	ELA2	X			
CUB CRAFTERS, Inc.	CC19-180	Metal tubing Fabric	Cub Crafters 19-180 (Lycoming)	ELA1	X			
Czech Sport Aircraft a.s.	PS-28 Cruiser	Metal	Czech Sport PS-28 (Rotax)	ELA1	X			
DAHER AEROSPACE	MS 880 B	Metal	SOCATA MS 880/885 (Continental)	ELA1	X			
DAHER AEROSPACE	MS 880 B-D	Metal	SOCATA MS 880/885 (Continental)	ELA1	X			



	GROUP 3: PISTO	N-ENGINE AERC	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of structure	Part-66	Note		OM
DAHER	MS 885	Metal	type rating endorsement SOCATA MS 880/885	ELA1	≤2T X	>2T
AEROSPACE			(Continental)			
DAHER AEROSPACE	MS 881	Metal	SOCATA MS 881 (Potez)	ELA1	Х	
DAHER AEROSPACE	MS 884	Metal	SOCATA MS 884/894/PZL Koliber (Franklin)	ELA1	X	
DAHER AEROSPACE	MS 894 A	Metal	SOCATA MS 884/894/PZL Koliber (Franklin)	ELA1	X	
DAHER AEROSPACE	MS 894 C	Metal	SOCATA MS 884/894/PZL Koliber (Franklin)	ELA1	Χ	
DAHER AEROSPACE	MS 894 E	Metal	SOCATA MS 884/894/PZL Koliber (Franklin)	ELA1	X	
DAHER AEROSPACE	MS 890 A	Metal	SOCATA MS 890 (Continental)	ELA1	X	
DAHER AEROSPACE	MS 890 B	Metal	SOCATA MS 890 (Continental)	ELA1	Χ	
DAHER AEROSPACE	MS 883	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 886	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	Х	
DAHER AEROSPACE	MS 887	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 892 A.150	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 892 B.150	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 892 E.150	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 892 E- D.150	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 893 A	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 893 B	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 893 E	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	MS 893 E-D	Metal	SOCATA MS 892/883/886/887 (Lycoming)	ELA1	X	
DAHER AEROSPACE	RALLYE 100 S	Metal	SOCATA Rallye Series (Continental)	ELA1	X	
DAHER AEROSPACE	RALLYE 100 S-D	Metal	SOCATA Rallye Series (Continental)	ELA1	X	
DAHER AEROSPACE	RALLYE 100 ST	Metal	SOCATA Rallye Series (Continental)	ELA1	X	
DAHER AEROSPACE	RALLYE 100 ST-D	Metal	SOCATA Rallye Series (Continental)	ELA1	X	



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note		ОМ
	oue.	structure	type rating endorsement		≤2T	>2T
DAHER AEROSPACE	RALLYE 110 ST	Metal	SOCATA Rallye Series (Lycoming)	ELA1	X	
DAHER AEROSPACE	RALLYE 150 ST	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 150 ST-D	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 150 SV	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 150 SVS	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 150	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 150 T-D	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 180	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 180 T-D	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 180	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 235	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 235	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 235	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 235 E-D	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	RALLYE 235	Metal	SOCATA Rallye Series (Lycoming)	ELA1	Х	
DAHER AEROSPACE	TB 10	Metal	SOCATA TB Series (Lycoming)	ELA1	X	
DAHER AEROSPACE	TB 20	Metal	SOCATA TB Series (Lycoming)	ELA2	X	
DAHER AEROSPACE	TB 200	Metal	SOCATA TB Series (Lycoming)	ELA2	X	
DAHER AEROSPACE	TB 21	Metal	SOCATA TB Series (Lycoming)	ELA2	Х	
DAHER AEROSPACE	TB 9	Metal	SOCATA TB Series (Lycoming)	ELA2	Х	
DE HAVILLAND Support (Aircraft with SAS)	Beagle series 1.	Metal	Beagle B.121 series 1 (Continental)	ELA1	Х	
DE HAVILLAND Support (Aircraft with SAS)	Beagle series 2/3.	Metal	Beagle B.121 series 2/3 (Lycoming)	ELA1	X	



(	GROUP 3: PISTO	N-ENGINE AERO	DPLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	МТ	ОМ
TC Holder	Model	structure	type rating endorsement	Note	≤2T	>2T
DECOURT (Aircraft with SAS)	DMS 884-1	Wood	Decourt DMS 884 (Franklin)	ELA1	X	
DIAMOND AIRCRAFT Industries	DA 42 M-NG	Composite	Diamond DA42 Series (Austro Engine)	ELA2. MTOM >2T with MÄM 42-659 and MÄM 42- 678 and OÄM 42- 260. Ref.: TCDS	X	
DIAMOND AIRCRAFT Industries	DA 42 NG	Composite	Diamond DA42 Series (Austro Engine)	ELA2. MTOM >2T with MÄM 42-659 and MÄM 42- 678 and OÄM 42- 260. Ref.: TCDS	X	
DIAMOND AIRCRAFT Industries	DA 42	Composite	Diamond DA42 Series (Technify)	ELA2	X	
DIAMOND AIRCRAFT Industries	DA 42 M	Composite	Diamond DA42 Series (Technify)	ELA2	X	
DIAMOND AIRCRAFT Industries	DA20-C1	Composite	Diamond DA20 (Continental)	ELA1	Х	
DIAMOND AIRCRAFT Industries	DA20-A1	Composite	Diamond DA20/DV20 (Rotax)	ELA1	Х	
DIAMOND AIRCRAFT Industries	DV 20	Composite	Diamond DA20/DV20 (Rotax)	ELA1	Х	
DIAMOND AIRCRAFT Industries	DV 20 E	Composite	Diamond DA20/DV20 (Rotax)	ELA1	X	
DIAMOND AIRCRAFT Industries	DA 40 NG	Composite	Diamond DA40 (Austro Engine)	ELA2	X	
DIAMOND AIRCRAFT Industries	DA 40	Composite	Diamond DA40 (Lycoming)	ELA2	X	
DIAMOND AIRCRAFT Industries	DA 40 F	Composite	Diamond DA40 (Lycoming)	ELA2	X	
DIAMOND AIRCRAFT Industries	DA 40 D	Composite	Diamond DA40 D (Technify)	ELA2	Х	



(	GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)									
TC Holder	Model	Type of	Part-66	Note		ОМ				
		structure	type rating endorsement		≤2T	>2T				
DIAMOND AIRCRAFT	DA 62	Composite	Diamond DA62 (Austro Engine)			Х				
Industries										
DYNAC	Aero	Metal	Aerocommander 100	ELA1	Х					
AEROSPACE	Commander		(Lycoming)							
Corporation	100									
E.I.S Aircraft	RS 180	Wood +	RS 180 (Lycoming)	ELA1	Χ					
GmbH E.I.S. HOLDING	RS 180	Composite	Consultantia Buttana BS100	ELA1	Х					
GmbH	K2 180	Wood + Composite	Sportavia Putzer RS180 (Lycoming)	CLAI	^					
EADS PZL	PZL-106	Metal	PZL-106 Series (PZL)			Χ				
'WARSZAWA-	series		,							
OKECIE' (Aircraft										
with SAS)	EV 0714		F 1, F1,0=(p : )	FLAG						
EVEKTOR	EV-97 VLA	Metal	Evektor EV-97 (Rotax)	ELA1	X					
EVEKTOR	SportStar RTC	Metal	SportStar RTC (Rotax)	ELA1	Х					
EXTRA	EA 300	Composite	Extra EA-300 Series (Lycoming)	ELA1	Х					
Flugzeugprodukti			, , , , , , , , , , , , , , , , , , ,							
ons- und										
Vertriebs-GmbH										
EXTRA Flugzeugprodukti	EA 300/200	Composite	Extra EA-300 Series (Lycoming)	ELA1	Х					
ons- und										
Vertriebs-GmbH										
EXTRA	EA 300/L	Composite	Extra EA-300 Series (Lycoming)	ELA1	Χ					
Flugzeugprodukti										
ons- und Vertriebs-GmbH										
EXTRA	EA 300/LC	Composite	Extra EA-300 Series (Lycoming)	ELA1	Х					
Flugzeugprodukti										
ons- und										
Vertriebs-GmbH										
EXTRA Flugzeugprodukti	EA 300/LT	Composite	Extra EA-300 Series (Lycoming)	ELA1	Х					
ons- und										
Vertriebs-GmbH										
EXTRA	EA 300/S	Composite	Extra EA-300 Series (Lycoming)	ELA1	X					
Flugzeugprodukti										
ons- und Vertriebs-GmbH										
EXTRA	EA 300/SC	Composite	Extra EA-300 Series (Lycoming)	ELA1	Х					
Flugzeugprodukti		,	(-,							
ons- und										
Vertriebs-GmbH	2004.0			<b>=</b> 1.4.6	,,					
FFT GYROFLUG (Aircraft with	SC01 Series	Composite	SC01 Series (Lycoming)	ELA1	Х					
SAS)										



	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of structure	Part-66 type rating endorsement	Note	MT ≤2T	OM >2T
Flight Design GmbH	CTLS-ELA	Composite	CTLS-ELA (Rotax)	ELA1	X	721
FLS AEROSPACE (Aircraft with SAS)	Club Sprint Sprint 160	Metal	Club Sprint/Sprint 160 (Lycoming)	ELA1	Х	
FLS AEROSPACE (Aircraft with SAS)	OA7 Series	Metal	OA7 Optica Series (Lycoming)	ELA2	X	
FUJI Heavy Industries	FA-200-160	Metal	Fuji FA-200 Series (Lycoming)	ELA1	X	
FUJI Heavy Industries	FA-200-180	Metal	Fuji FA-200 Series (Lycoming)	ELA1	Χ	
FUJI Heavy Industries	FA-200- 180AO	Metal	Fuji FA-200 Series (Lycoming)	ELA1	X	
GA8 Airvan Pty Ltd	GA8	Metal	Gippsland GA8 (Lycoming)	ELA2	X	
GA8 Airvan Pty Ltd	GA8-TC 320	Metal	Gippsland GA8 (Lycoming)	ELA2	X	
Game Composite	GB1 GameBird	Composite	GameBird1 (Lycoming)	ELA1	Χ	
GARDAN (Aircraft with SAS)	GY80 Series	Metal	Gardan GY 80 (Lycoming)	ELA1	Χ	
GENERAL AVIA Costruzioni Aeronautiche (Aircraft with SAS)	F.20 Pegaso	Metal	General Avia F.20 Series (Continental)			X
GENERAL AVIA Costruzioni Aeronautiche (Aircraft with SAS)	F.22 series	Metal	General Avia F.22 (Lycoming)	ELA1	X	
GOMOLZIG FLUGZEUG- UND MASCHINENBAU GmbH	AS202/15	Metal	AS202 Series (Lycoming)	ELA1	X	
GOMOLZIG FLUGZEUG- UND MASCHINENBAU GmbH	AS202/15-1	Metal	AS202 Series (Lycoming)	ELA1	X	
GOMOLZIG FLUGZEUG- UND MASCHINENBAU GmbH	AS202/18A	Metal	AS202 Series (Lycoming)	ELA1	X	
GOMOLZIG FLUGZEUG- UND MASCHINENBAU GmbH	AS202/18A1	Metal	AS202 Series (Lycoming)	ELA1	X	



(	GROUP 3: PISTO	N-ENGINE AERO	DPLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note		OM
GOMOLZIG FLUGZEUG- UND MASCHINENBAU GmbH	AS202/18A2	structure Metal	AS202 Series (Lycoming)	ELA1	≤2T X	>2T
GOMOLZIG FLUGZEUG- UND MASCHINENBAU GmbH	AS202/18A3	Metal	AS202 Series (Lycoming)	ELA1	X	
GOMOLZIG FLUGZEUG- UND MASCHINENBAU GmbH	AS202/18A4	Metal	AS202 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115	Composite	Grob G115/120 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115A	Composite	Grob G115/120 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115B	Composite	Grob G115/120 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115C	Composite	Grob G115/120 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115C2	Composite	Grob G115/120 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115D	Composite	Grob G115/120 Series (Lycoming)	ELA1	Χ	
GROB Aircraft AG	G 115D2	Composite	Grob G115/120 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115E	Composite	Grob G115/120 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115EG	Composite	Grob G115/120 Series (Lycoming)	ELA1	X	
GROB Aircraft AG	G 115TA	Composite	Grob G115/120 Series (Lycoming)	ELA2	X	
GROB Aircraft AG	G 120A	Composite	Grob G115/120 Series (Lycoming)	ELA2	X	
GROB Aircraft AG	G 120A-I	Composite	Grob G115/120 Series (Lycoming)	ELA2	X	
Hoffmann GmbH & Co. KG	H 40	Composite	H 40 (Lycoming)	ELA1	X	
INSTYTUT LOTNICTWA	I-23 'Manager'	Composite	Instytut Lotnictwa I-23 Manager (Lycoming)	ELA1	X	
INTERCEPTOR AIRCRAFT Corporation	200D	Metal	Aerocommander 200 (Continental)	ELA2	X	
ISSOIRE AVIATION	APM 20	Composite	Issoire APM 20/30 (Rotax)	ELA1	X	
ISSOIRE AVIATION	APM 30	Composite	Issoire APM 20/30 (Rotax)	ELA1	X	



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)									
TC Holder	Model	Type of	Part-66	Note		ОМ			
ISSOIRE AVIATION	APM 40	structure Composite	type rating endorsement Issoire APM 40 (Continental)	ELA1	≤2T X	>2T			
LAVIA ARGENTINA S.A. (LAVIASA)	PA-25	Metal	Piper PA-25 Series (Lycoming)	ELA2	X				
LAVIA ARGENTINA S.A. (LAVIASA)	PA-25-235	Metal	Piper PA-25 Series (Lycoming)	ELA2	X				
LAVIA ARGENTINA S.A. (LAVIASA)	PA-25-260	Metal	Piper PA-25 Series (Lycoming)	ELA2	X				
LEONARDO S.p.A.	F260	Metal	Aermacchi F260 Series (Lycoming)	ELA1	X				
LEONARDO S.p.A.	F260B	Metal	Aermacchi F260 Series (Lycoming)	ELA1	Χ				
LEONARDO S.p.A.	F260C	Metal	Aermacchi F260 Series (Lycoming)	ELA1	X				
LEONARDO S.p.A.	F260D	Metal	Aermacchi F260 Series (Lycoming)	ELA1	Χ				
LEONARDO S.p.A.	F260E	Metal	Aermacchi F260 Series (Lycoming)	ELA1	Χ				
LEONARDO S.p.A.	F260F	Metal	Aermacchi F260 Series (Lycoming)	ELA1	X				
LEONARDO S.p.A.	S205-22/R	Metal	SIAI-Marchetti S.205 (Franklin)	ELA2	Χ				
LEONARDO S.p.A.	S205-18/F	Metal	SIAI-Marchetti S.205/S.208 (Lycoming)	ELA1	Х				
LEONARDO S.p.A.	S205-18/R	Metal	SIAI-Marchetti S.205/S.208 (Lycoming)	ELA1	X				
LEONARDO S.p.A.	S205-20/F	Metal	SIAI-Marchetti S.205/S.208 (Lycoming)	ELA2	X				
LEONARDO S.p.A.	S205-20/R	Metal	SIAI-Marchetti S.205/S.208 (Lycoming)	ELA2	X				
LEONARDO S.p.A.	S208	Metal	SIAI-Marchetti S.205/S.208 (Lycoming)	ELA2	X				
LEONARDO S.p.A.	S208A	Metal	SIAI-Marchetti S.205/S.208 (Lycoming)	ELA2	X				
LIBERTY AEROSPACE Incorporated	XL-2	Composite	Liberty XL-2 (Continental)	ELA1	X				
Light Wing AG	LightWing AC4	Metal tubing Fabric	Lightwing AC4 (Rotax)	ELA1	X				
Magnaghi Aeronautica S.p.A. (INIZIATIVE INDUSTRIALI ITALIANE)	Sky Arrow 650 TC	Composite	III Sky Arrow 650/710 (Rotax)	ELA1	X				



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)									
TC Holder	Model	Type of	Part-66	Note		ОМ			
		structure	type rating endorsement		≤2T	>2T			
Magnaghi Aeronautica S.p.A. (INIZIATIVE INDUSTRIALI ITALIANE)	Sky Arrow 650 TCN	Composite	III Sky Arrow 650/710 (Rotax)	ELA1	X				
Magnaghi Aeronautica S.p.A. (INIZIATIVE INDUSTRIALI ITALIANE)	Sky Arrow 650 TCNS	Composite	III Sky Arrow 650/710 (Rotax)	ELA1	X				
Magnaghi Aeronautica S.p.A. (INIZIATIVE INDUSTRIALI ITALIANE)	Sky Arrow 650 TCS	Composite	III Sky Arrow 650/710 (Rotax)	ELA1	X				
Magnaghi Aeronautica S.p.A. (INIZIATIVE INDUSTRIALI ITALIANE)	Sky Arrow 710 RG	Composite	III Sky Arrow 650/710 (Rotax)	ELA1	X				
MAULE AEROSPACE TECHNOLOGY	Bee Dee M-4	Metal tubing Fabric	Maule M4 (Continental)	ELA1	X				
MAULE AEROSPACE TECHNOLOGY	M-4	Metal tubing Fabric	Maule M4 (Continental)	ELA1	X				
MAULE AEROSPACE TECHNOLOGY	M-4-210	Metal tubing Fabric	Maule M4 (Continental)	ELA1	X				
MAULE AEROSPACE TECHNOLOGY	M-4-210C	Metal tubing Fabric	Maule M4 (Continental)	ELA1	X				
MAULE AEROSPACE TECHNOLOGY	M-4C	Metal tubing Fabric	Maule M4 (Continental)	ELA1	X				
MAULE AEROSPACE TECHNOLOGY	M-4S	Metal tubing Fabric	Maule M4 (Continental)	ELA1	Х				
MAULE AEROSPACE TECHNOLOGY	M-4T	Metal tubing Fabric	Maule M4 (Continental)	ELA1	X				
MAULE AEROSPACE TECHNOLOGY	M-4-220	Metal tubing Fabric	Maule M4 (Franklin)	ELA1	X				
MAULE AEROSPACE TECHNOLOGY	M-4-220C	Metal tubing Fabric	Maule M4 (Franklin)	ELA1	X				



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of structure	Part-66 type rating endorsement	Note		OM
MAULE AEROSPACE TECHNOLOGY	M-4-220S	Metal tubing Fabric	Maule M4 (Franklin)	ELA1	≤2T X	>2T
MAULE AEROSPACE TECHNOLOGY	M-4-180V	Metal tubing Fabric	Maule M4 (Lycoming)	ELA1	X	
MAULE AEROSPACE TECHNOLOGY	M-5-180C	Metal tubing Fabric	Maule M5 (Lycoming)	ELA1	Х	
MAULE AEROSPACE TECHNOLOGY	M-5-210C	Metal tubing Fabric	Maule M5 (Lycoming)	ELA1	X	
MAULE AEROSPACE TECHNOLOGY	M-5-235C	Metal tubing Fabric	Maule M5 (Lycoming)	ELA1	X	
MAULE AEROSPACE TECHNOLOGY	M-6-235	Metal tubing Fabric	Maule M6 (Lycoming)	ELA1	X	
MAULE AEROSPACE TECHNOLOGY	M-7-235	Metal tubing Fabric	Maule M7 Series (Lycoming)	ELA1	X	
MAULE AEROSPACE TECHNOLOGY	M-7-235B	Metal tubing Fabric	Maule M7 Series (Lycoming)	ELA2	X	
MAULE AEROSPACE TECHNOLOGY	MT-7-235	Metal tubing Fabric	Maule M7 Series (Lycoming)	ELA1	X	
MAULE AEROSPACE TECHNOLOGY	MT-7-235C	Metal tubing Fabric	Maule M7 Series (Lycoming)	ELA1	X	
MAULE AEROSPACE TECHNOLOGY	MX-7-160	Metal + Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1. Wing is metal, fuselage is metal tubing with fabric.	X	
MAULE AEROSPACE TECHNOLOGY	MX-7-180	Metal + Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1. Wing is metal, fuselage is metal tubing with fabric.	X	
MAULE AEROSPACE TECHNOLOGY	MX-7-180A	Metal + Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1. Wing is metal, fuselage is metal tubing with fabric.	X	
MAULE AEROSPACE TECHNOLOGY	MX-7-180B	Metal + Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1. Wing is metal, fuselage is metal	X	



	GROUP 3: PISTO	N-ENGINE AERO	OPLANES (other than those in Grou	ıp 1)		
TC Holder Model		Type of	Part-66	Note	MT	ОМ
i C Holder	Model	structure	type rating endorsement	Note	≤2T	>2T
				tubing with fabric.		
MAULE AEROSPACE TECHNOLOGY	MX-7-180C	Metal + Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1. Wing is metal, fuselage is metal tubing with fabric.	X	
MAULE AEROSPACE TECHNOLOGY	MX-7-235	Metal + Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1. Wing is metal, fuselage is metal tubing with fabric.	X	
MAULE AEROSPACE TECHNOLOGY	MXT-7-160	Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1	X	
MAULE AEROSPACE TECHNOLOGY	MXT-7-180	Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1	Х	
MAULE AEROSPACE TECHNOLOGY	MXT-7-180A	Metal tubing Fabric	Maule MX-7 (Lycoming)	ELA1	Х	
MOONEY AIRPLANE Company	M20K	Metal	Mooney M20 (Continental)	ELA2	X	
MOONEY AIRPLANE Company	M20R	Metal	Mooney M20 (Continental)	ELA2	X	
MOONEY AIRPLANE Company	M20S	Metal	Mooney M20 (Continental)	ELA2	X	
MOONEY AIRPLANE Company	M20	Metal + Wood	Mooney M20/M20A (Lycoming)	ELA2	X	
MOONEY AIRPLANE Company	M20A	Metal + Wood	Mooney M20/M20A (Lycoming)	ELA2	X	
MOONEY AIRPLANE Company	M20B	Metal	Mooney M20B to M20S/M22 (Lycoming)	ELA2	X	
MOONEY AIRPLANE Company	M20C	Metal	Mooney M20B to M20S/M22 (Lycoming)	ELA2	X	
MOONEY AIRPLANE Company	M20D	Metal	Mooney M20B to M20S/M22 (Lycoming)	ELA2	X	
MOONEY AIRPLANE Company	M20E	Metal	Mooney M20B to M20S/M22 (Lycoming)	ELA2	X	



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
<b>TO 11 11</b>		Type of	Part-66		МТО	
TC Holder	Model	structure	type rating endorsement	Note	≤2T	>2T
MOONEY	M20F	Metal	Mooney M20B to M20S/M22	ELA2	Χ	
AIRPLANE			(Lycoming)			
Company						
MOONEY	M20G	Metal	Mooney M20B to M20S/M22	ELA2	Χ	
AIRPLANE			(Lycoming)			
Company						
MOONEY	M20J	Metal	Mooney M20B to M20S/M22	ELA2	Χ	
AIRPLANE			(Lycoming)			
Company						
MOONEY	M20M	Metal	Mooney M20B to M20S/M22	ELA2	Χ	
AIRPLANE			(Lycoming)			
Company	1422		A. A.GOD : A.GOD // A.G.	FLAC	.,	
MOONEY	M22	Metal	Mooney M20B to M20S/M22	ELA2	Х	
AIRPLANE Company			(Lycoming)			
MOONEY	M20L	Metal	Mooney M20L (Porsche)	ELA2	Х	
AIRPLANE	IVIZUL	Metal	Widdley Wizut (Poische)	LLAZ	^	
Company						
OMA SUD SPA	SKYCAR	Metal	SKYCAR (Lycoming)	ELA2	Х	
Sky Technologies	SKICAK	Wictar	SKI CAR (Lyconning)	LLAZ	^	
PIAGGIO Aero	P.166	Metal	Piaggio P166 (Lycoming)			Χ
Industries	1.100	Wictar	riaggio i 100 (Lycoming)			<b>A</b>
PIAGGIO Aero	P.166 B	Metal	Piaggio P166 (Lycoming)			Х
Industries	1.100 5	Wicker.				, ,
PIAGGIO Aero	P.166 C	Metal	Piaggio P166 (Lycoming)			Χ
Industries			(-)			
PIAGGIO Aero	P.166 DL3	Metal	Piaggio P166 (Lycoming)			Χ
Industries						
PIAGGIO Aero	P.166 S	Metal	Piaggio P166 (Lycoming)			Χ
Industries						
PILATUS	PC-6	Metal	Pilatus PC-6 Series (Lycoming)	ELA2	Χ	Χ
AIRCRAFT						
PILATUS	PC-6/350	Metal	Pilatus PC-6 Series (Lycoming)	ELA2	Χ	Χ
AIRCRAFT						
PILATUS	PC-6/350-H1	Metal	Pilatus PC-6 Series (Lycoming)	ELA2	Χ	Χ
AIRCRAFT						
PILATUS	PC-6/350-H2	Metal	Pilatus PC-6 Series (Lycoming)	ELA2	Χ	Χ
AIRCRAFT						
PILATUS	PC-6-H1	Metal	Pilatus PC-6 Series (Lycoming)	ELA2	Χ	Χ
AIRCRAFT						
PILATUS	PC-6-H2	Metal	Pilatus PC-6 Series (Lycoming)	ELA2	Χ	Χ
AIRCRAFT						
PIPER AIRCRAFT	PA-23-235	Metal	Piper PA-23 Aztec (Lycoming)	ELA2	Χ	
PIPER AIRCRAFT	PA-23-250	Metal	Piper PA-23 Aztec (Lycoming)	ELA2	Χ	
PIPER AIRCRAFT	PA-E23-250	Metal	Piper PA-23 Aztec (Lycoming)			Χ
PIPER AIRCRAFT	PA-24	Metal	Piper PA-24 Series (Lycoming)	ELA1	Χ	
PIPER AIRCRAFT	PA-24-250	Metal	Piper PA-24 Series (Lycoming)	ELA2	Х	
	7.5					



	GROUP 3: PISTO	N-ENGINE AERO	OPLANES (other than those in Grou	up 1)		
TC Halden	Model	Type of	Part-66	Nata	MT	ОМ
TC Holder	Model	structure	type rating endorsement	Note	≤2T	>2T
PIPER AIRCRAFT	PA-24-260	Metal	Piper PA-24 Series (Lycoming)	ELA2	Χ	
PIPER AIRCRAFT	PA-24-400	Metal	Piper PA-24 Series (Lycoming)	ELA2	Χ	
PIPER AIRCRAFT	PA-28-201T (Turbo Dakota)	Metal	Piper PA-28 Series (Continental)	ELA1	X	
PIPER AIRCRAFT	PA-28R-201T (Turbo Arrow III)	Metal	Piper PA-28 Series (Continental)	ELA2	X	
PIPER AIRCRAFT	PA-28RT- 201T (Turbo Arrow IV)	Metal	Piper PA-28 Series (Continental)	ELA2	X	
PIPER AIRCRAFT	PA-28-140 (Cherokee Cruiser)	Metal	Piper PA-28 Series (Lycoming)	ELA1	X	
PIPER AIRCRAFT	PA-28-150 (Cherokee)	Metal	Piper PA-28 Series (Lycoming)	ELA1	X	
PIPER AIRCRAFT	PA-28-151 (Cherokee Warrior)	Metal	Piper PA-28 Series (Lycoming)	ELA1	X	
PIPER AIRCRAFT	PA-28-160 (Cherokee)	Metal	Piper PA-28 Series (Lycoming)	ELA1	X	
PIPER AIRCRAFT	PA-28-161	Metal	Piper PA-28 Series (Lycoming)	ELA1	Χ	
PIPER AIRCRAFT	PA-28-161 (Warrior II)	Metal	Piper PA-28 Series (Lycoming)	ELA1	Х	
PIPER AIRCRAFT	PA-28-161 (Warrior III)	Metal	Piper PA-28 Series (Lycoming)	ELA1	X	
PIPER AIRCRAFT	PA-28-180 (Archer)	Metal	Piper PA-28 Series (Lycoming)	ELA1	Х	
PIPER AIRCRAFT	PA-28-180 (Cherokee)	Metal	Piper PA-28 Series (Lycoming)	ELA1	Х	
PIPER AIRCRAFT	PA-28-181 (Archer II)	Metal	Piper PA-28 Series (Lycoming)	ELA1	Х	
PIPER AIRCRAFT	PA-28-181 (Archer III)	Metal	Piper PA-28 Series (Lycoming)	ELA1	X	
PIPER AIRCRAFT	PA-28-235 (Cher. Pathfinder)	Metal	Piper PA-28 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-28-236 (Dakota)	Metal	Piper PA-28 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-28R-180 (Arrow)	Metal	Piper PA-28 Series (Lycoming)	ELA1	X	
PIPER AIRCRAFT	PA-28R-200 (Arrow II)	Metal	Piper PA-28 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-28R-200 (Arrow)	Metal	Piper PA-28 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-28R-201 (Arrow III)	Metal	Piper PA-28 Series (Lycoming)	ELA2	Х	



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	up 1)		
TC Holder	Model	Type of	Part-66	Note		ОМ
		structure	type rating endorsement		≤2T	>2T
PIPER AIRCRAFT	PA-28RT-201 (Arrow IV)	Metal	Piper PA-28 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-28S-160 (Cherokee)	Metal	Piper PA-28 Series (Lycoming)	ELA1	X	
PIPER AIRCRAFT	PA-28S-180 (Cherokee)	Metal	Piper PA-28 Series (Lycoming)	ELA1	Х	
PIPER AIRCRAFT	PA-30	Metal	Piper PA-30 Series (Lycoming)	ELA2	Χ	
PIPER AIRCRAFT	PA-31	Metal	Piper PA-31 Series (Lycoming)			Χ
PIPER AIRCRAFT	PA-31-300	Metal	Piper PA-31 Series (Lycoming)			Χ
PIPER AIRCRAFT	PA-31-325	Metal	Piper PA-31 Series (Lycoming)			Χ
PIPER AIRCRAFT	PA-31-350 (Chieftain)	Metal	Piper PA-31 Series (Lycoming)			Χ
PIPER AIRCRAFT	PA-31P (Pressurized Navajo)	Metal + Pressurised	Piper PA-31P (Lycoming)			X
PIPER AIRCRAFT	PA-31P-350 (Mojave)	Metal + Pressurised	Piper PA-31P (Lycoming)			X
PIPER AIRCRAFT	PA-32-260 (Cherokee Six 260)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32-300 (Cherokee Six 300)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32-301 (Saratoga)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32-301FT (Piper 6X)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32-301T (Turbo Saratoga)	Metal	Piper PA-32 Series (Lycoming)	ELA2	Х	
PIPER AIRCRAFT	PA-32- 301XTC (Piper 6XT)	Metal	Piper PA-32 Series (Lycoming)	ELA2	Х	
PIPER AIRCRAFT	PA-32R-300 (Lance)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32R-301 (Saratoga II HP)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32R-301 (Saratoga SP)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32R-301T (Saratoga II TC)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32R-301T (Turbo SaratogaSP)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	



(	GROUP 3: PISTO	N-ENGINE AERO	DPLANES (other than those in Grou	up 1)		
TC Holder	Model	Type of structure	Part-66 type rating endorsement	Note		OM
PIPER AIRCRAFT	PA-32RT-300 (Lance II)	Metal	Piper PA-32 Series (Lycoming)	ELA2	≤2T X	>2T
PIPER AIRCRAFT	PA-32RT- 300T (Turbo Lance II)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-32S-300 (Cher.Six Seaplane)	Metal	Piper PA-32 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-34-200T (Seneca II)	Metal	Piper PA-34 Series (Continental)			X
PIPER AIRCRAFT	PA-34-220T (Seneca III)	Metal	Piper PA-34 Series (Continental)			X
PIPER AIRCRAFT	PA-34-220T (Seneca IV)	Metal	Piper PA-34 Series (Continental)			X
PIPER AIRCRAFT	PA-34-220T (Seneca V)	Metal	Piper PA-34 Series (Continental)			X
PIPER AIRCRAFT	PA-34-200 (Seneca)	Metal	Piper PA-34 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-36-285 (Normal category)	Metal	Piper PA-36 Series (Continental)	ELA2	X	
PIPER AIRCRAFT	PA-36-300 (Normal category)	Metal	Piper PA-36 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-36-375 (Normal category)	Metal	Piper PA-36 Series (Lycoming)	ELA2		X
PIPER AIRCRAFT	PA-38-112	Metal	Piper PA-38 Series (Lycoming)	ELA1	Χ	
PIPER AIRCRAFT	PA-39	Metal	Piper PA-39/40 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-40	Metal	Piper PA-39/40 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-44-180 (Seminole)	Metal	Piper PA-44 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-44-180T (Turbo Seminole)	Metal	Piper PA-44 Series (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-46-310P	Metal + Pressurised	Piper PA-46 Pressurised (Continental)	ELA2	X	
PIPER AIRCRAFT	PA-46-350P (Mirage)	Metal + Pressurised	Piper PA-46 Pressurised (Lycoming)	ELA2	X	
PIPER AIRCRAFT	PA-46R-350T (Matrix)	Metal	Piper PA-46 Series (Lycoming)	ELA2	X	
Pipistrel Vertical Solutions d.o.o.	Virus SW 121	Composite	Pipistrel Virus (Rotax)	ELA1	X	
Polskie Zakłady Lotnicze Sp. z o.o.	PZL M18	Metal	PZL M 18 (PZL)			X



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note		ОМ
Dolokie Zakładu	PZL M18A	structure	type rating endorsement		≤2T	>2T
Polskie Zakłady Lotnicze Sp. z o.o.	PZL IVI18A	Metal	PZL M 18 (PZL)			Х
Polskie Zakłady	PZL M18AS	Metal	PZL M 18 (PZL)			Χ
Lotnicze Sp. z o.o.						
Polskie Zakłady Lotnicze Sp. z o.o.	PZL M18B	Metal	PZL M 18 (PZL)			Χ
Polskie Zakłady	PZL M18BS	Metal	PZL M 18 (PZL)			Х
Lotnicze Sp. z o.o.						
Polskie Zakłady Lotnicze Sp. z o.o.	PZL M26 01	Metal	PZL M 26 (Lycoming)	ELA2	Х	
Polskie Zakłady	PZL M20	Metal	PZL M 20 (PZL)			Х
Lotnicze Sp. z o.o.			· ( ,			
(Aircrat with SAS)						
PZL WARSZAWAOKEC	PZL-104M Wilga 2000	Metal	PZL-104 Wilga (Lycoming)	ELA2	Χ	
IE S.A.	60 =000					
PZL	PZL-104MA	Metal	PZL-104 Wilga (Lycoming)	ELA2	Χ	
WARSZAWAOKEC IE S.A.	Wilga 2000					
PZL	PZL-104MF	Metal	PZL-104 Wilga (Lycoming)	ELA2	Х	
WARSZAWAOKEC	Wilga 2000					
IE S.A.	PZL-104MN	Metal	PZL-104 Wilga (Lycoming)	ELA2	Χ	
WARSZAWAOKEC	Wilga 2000	IVICLUI	FZL-104 Wilga (Lycollilig)	LLAZ	^	
IE S.A.						
PZL WARSZAWAOKEC	PZL-104 Wilga 32	Metal	PZL-104 Wilga Series (Continental)	ELA2	Х	
IE S.A.	vviiga 32		(Continental)			
PZL	PZL-104	Metal	PZL-104 Wilga Series	ELA2	Χ	
WARSZAWAOKEC	Wilga 32A		(Continental)			
IE S.A.	PZL-104	Metal	PZL-104A Wilga (Ivchenko)	ELA2	Χ	
WARSZAWAOKEC	Wilga 35	Wiccar	T LL 10474 VVIIBU (IVUIICIIKO)	22,12	,	
IE S.A.						
PZL WARSZAWAOKEC	PZL-104 Wilga 35A	Metal	PZL-104A Wilga (Ivchenko)	ELA2	Χ	
IE S.A.	Winga 33/1					
PZL	PZL-104	Metal	PZL-104A Wilga (Ivchenko)	ELA2	Χ	
WARSZAWAOKEC IE S.A.	Wilga 80					
PZL PZL	PZL-110	Metal	PZL-110 Koliber (Franklin)	ELA1	Χ	
WARSZAWAOKEC	KOLIBER		,			
IE S.A.	DZI KOLIDED	Motal	DZI Volibor 150 Sovies	FI A 1	V	
PZL WARSZAWAOKEC	PZL-KOLIBER 150	Metal	PZL-Koliber 150 Series (Lycoming)	ELA1	Χ	
IE S.A.						



	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
i C Holder	Model	structure	type rating endorsement	Note	≤2T	>2T
PZL WARSZAWAOKEC IE S.A.	PZL-KOLIBER 150A	Metal	PZL-Koliber 150 Series (Lycoming)	ELA1	X	
PZL WARSZAWAOKEC IE S.A.	PZL-KOLIBER 160A	Metal	PZL-Koliber 160 (Lycoming)	ELA1	X	
Reims Aviation (Aircraft with SAS)	FTB337G	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	Ref.: SAS.A.11 5.		X
Reims Aviation (Aircraft with SAS)	FTB337GA	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	Ref.: SAS.A.11 5.		X
REVO, Inc	LA-4A	Metal	REVO C/LA-4 Series (Lycoming)	ELA1	Χ	
REVO, Inc	LA-4P	Metal	REVO C/LA-4 Series (Lycoming)	ELA1	Χ	
REVO, Inc	Lake 250	Metal	REVO C/LA-4 Series (Lycoming)	ELA2	Χ	
REVO, Inc.	LA-4-200	Metal	Lake C/LA Series (Lycoming)	ELA1	Χ	
RUAG AEROSPACE Services GmbH	Do 28 A-1	Metal	Do 28 Series (Lycoming)			X
RUAG AEROSPACE Services GmbH	Do 28 A-1[R]	Metal	Do 28 Series (Lycoming)			X
RUAG AEROSPACE Services GmbH	Do 28 B-1	Metal	Do 28 Series (Lycoming)			X
RUAG AEROSPACE Services GmbH	Do 28 D	Metal	Do 28 Series (Lycoming)			X
RUAG AEROSPACE Services GmbH	Do 28 D-1	Metal	Do 28 Series (Lycoming)			X
RUAG AEROSPACE Services GmbH	Do 28 D-2	Metal	Do 28 Series (Lycoming)			X
SCHEIBE Flugzeugbau	SF 23 A	Wood + Metal tubing Fabric	SF 23 Series (Continental)	ELA1	X	
SCHEIBE Flugzeugbau	SF 23 A1	Wood + Metal tubing Fabric	SF 23 Series (Continental)	ELA1	X	
SCHEIBE Flugzeugbau	SF 23 B	Wood + Metal tubing Fabric	SF 23 Series (Continental)	ELA1	X	
SCHEIBE Flugzeugbau (Aircraft with SAS)	SF 23 C	Wood + Metal tubing Fabric	SF 23 Series (Lycoming)	ELA1	X	
SEASTAR CORP	TSC-1A	Composite	TSC Series (Lycoming)	ELA1	Х	



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)								
TC Holder	Model	Type of	Part-66	Note	МТОМ			
i C Holder	iviodei	structure	type rating endorsement	Note	≤2T >2T			
SEASTAR CORP	TSC-1A1	Composite	TSC Series (Lycoming)	ELA1	X			
SEASTAR CORP	TSC-1A2	Composite	TSC Series (Lycoming)	ELA1	X			
Skyfox Aviation Ltd	CA25	Wood + Metal tubing Fabric	CA25 Series (Rotax)	ELA1	X			
Skyfox Aviation Ltd	CA25N	Wood + Metal tubing Fabric	CA25 Series (Rotax)	ELA1	X			
SLINGSBY Aviation	T67A	Wood	Slingsby T67A (Lycoming)	ELA1	X			
SLINGSBY Aviation	T67B Firefly	Composite	Slingsby T67B/T67C/T67M Series (Lycoming)	ELA1	X			
SLINGSBY Aviation	T67C Firefly	Composite	Slingsby T67B/T67C/T67M Series (Lycoming)	ELA1	X			
SLINGSBY Aviation	T67M Firefly	Composite	Slingsby T67B/T67C/T67M Series (Lycoming)	ELA1	X			
SLINGSBY Aviation	T67M200 Firefly	Composite	Slingsby T67B/T67C/T67M Series (Lycoming)	ELA1	X			
SLINGSBY Aviation	T67M260 Firefly	Composite	Slingsby T67B/T67C/T67M Series (Lycoming)	ELA1	X			
SLINGSBY Aviation	T67M260- T3A Firefly	Composite	Slingsby T67B/T67C/T67M Series (Lycoming)	ELA1	X			
SLINGSBY Aviation	T67M-MKII Firefly	Composite	Slingsby T67B/T67C/T67M Series (Lycoming)	ELA1	X			
SOCATA(Aircraft with SAS)	RALLYE 235 CA	Metal	SOCATA Rallye Series (Lycoming)	ELA2	X			
SOCATA (Aircraft with SAS)	RALLYE 235 CA-M	Metal	SOCATA Rallye Series (Lycoming)	ELA2	X			
SOCATA (Aircraft with SAS)	ST10	Metal	SOCATA ST10 (Lycoming)	ELA2	X			
SONACA AIRCRAFT S.A.	S200	Metal	SONACA 200 (Rotax)	ELA1	X			
SONACA AIRCRAFT S.A.	S201	Metal	SONACA 200 (Rotax)	ELA1	X			
SST FLUGTECHNIK GmbH	EA 400	Composite	Extra EA-400 (Continental)	ELA2	X			
STEMME AG	S15-1	Composite	Stemme ASP S15-1 (Rotax)	ELA1	Χ			
SUKHOI (Aircraft with SAS)	Su-29	Composite	Sukhoi SU-29 (Vedeneyev)	ELA2	X			
SUKHOI (Aircraft with SAS)	Su-31	Composite	Sukhoi SU-31 (Vedeneyev)	ELA1	X			
SYMPHONY AIRCRAFT INDUSTRIES	OMF-100- 160	Metal	Symphony OMF-100-160 (Lycoming)	ELA1	X			
TAYLORCRAFT 2000	19	Wood + Metal tubing Fabric	Taylorcraft 19 Series (Continental)	ELA1	X			



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)									
TC Holder	Model	Type of	Part-66	Note		ОМ			
		structure	type rating endorsement		≤2T	>2T			
TAYLORCRAFT 2000	F19	Wood + Metal tubing Fabric	Taylorcraft 19 Series (Continental)	ELA1	X				
TAYLORCRAFT 2000	F21	Wood + Metal tubing Fabric	Taylorcraft F21/F22 Series (Lycoming)	ELA1	X				
TAYLORCRAFT 2000	F21A	Wood + Metal tubing Fabric	Taylorcraft F21/F22 Series (Lycoming)	ELA1	X				
TAYLORCRAFT 2000	F21B	Wood + Metal tubing Fabric	Taylorcraft F21/F22 Series (Lycoming)	ELA1	X				
TAYLORCRAFT 2000	F22	Wood + Metal tubing Fabric	Taylorcraft F21/F22 Series (Lycoming)	ELA1	Х				
TAYLORCRAFT 2000	F22A	Wood + Metal tubing Fabric	Taylorcraft F21/F22 Series (Lycoming)	ELA1	X				
TAYLORCRAFT 2000	F22B	Wood + Metal tubing Fabric	Taylorcraft F21/F22 Series (Lycoming)	ELA1	X				
TAYLORCRAFT 2000	F22C	Wood + Metal tubing Fabric	Taylorcraft F21/F22 Series (Lycoming)	ELA1	Х				
TECNAM Costruzioni Aeronautiche	P2006T	Metal	Tecnam P2006T (Rotax)	ELA1	X				
TECNAM Costruzioni Aeronautiche	P92-JS	Metal	Tecnam P92 (Rotax)	ELA1	X				
TECNAM Costruzioni Aeronautiche	P2002-JF	Metal	Tecnam P2002 (Rotax)	ELA1	X				
TECNAM Costruzioni Aeronautiche	P2002-JR	Metal	Tecnam P2002 (Rotax)	ELA1	X				
TECNAM Costruzioni Aeronautiche	P2008 JC	Composite + Metal	Tecnam P2008 (Rotax)	ELA1	X				
TECNAM Costruzioni Aeronautiche	P2010	Composite + Metal	Tecnam P2010 (Lycoming)	ELA1	X				
TECNAM Costruzioni Aeronautiche	P2012 Traveller	Metal	Tecnam P2012 (Lycoming)			X			
TECNAM Costruzioni Aeronautiche	P92-J	Metal	Tecnam P92 (Rotax)	ELA1	X				



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)								
TC Holder	Model	Type of	Part-66	Note	MT	ОМ		
i C Holder	Model	structure	type rating endorsement	Note	≤2T	>2T		
TEXTRON AVIATION Inc.	E33	Metal	Beech 33 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	E33A	Metal	Beech 33 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	E33C	Metal	Beech 33 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	F33	Metal	Beech 33 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	F33A	Metal	Beech 33 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	F33C	Metal	Beech 33 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	G33	Metal	Beech 33 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	35-33	Metal	Beech 35 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	35-A33	Metal	Beech 35 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	35-B33	Metal	Beech 35 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	35-C33	Metal	Beech 35 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	35-C33A	Metal	Beech 35 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	H35	Metal	Beech 35 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	J35	Metal	Beech 35 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	K35	Metal	Beech 35 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	M35	Metal	Beech 35 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	N35	Metal	Beech 35 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	P35	Metal	Beech 35 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	S35	Metal	Beech 35 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	V35	Metal	Beech 35 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	V35A	Metal	Beech 35 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	V35B	Metal	Beech 35 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	36	Metal	Beech 36 Series (Continental)	ELA2	X			



G	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
remoider	Model	structure	type rating endorsement	11010	≤2T	>2T
TEXTRON AVIATION Inc.	A36	Metal	Beech 36 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	A36TC	Metal	Beech 36 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	В36ТС	Metal	Beech 36 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	G36	Metal	Beech 36 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	D55	Metal	Beech 55 Series (Continental)			X
TEXTRON AVIATION Inc.	D55A	Metal	Beech 55 Series (Continental)			X
TEXTRON AVIATION Inc.	E55	Metal	Beech 55 Series (Continental)			X
TEXTRON AVIATION Inc.	E55A	Metal	Beech 55 Series (Continental)			X
TEXTRON AVIATION Inc.	56TC	Metal	Beech 56 Series (Lycoming)			X
TEXTRON AVIATION Inc.	A56TC	Metal	Beech 56 Series (Lycoming)			X
TEXTRON AVIATION Inc.	58	Metal	Beech 58 Series (Continental)			X
TEXTRON AVIATION Inc.	58A	Metal	Beech 58 Series (Continental)			X
TEXTRON AVIATION Inc.	G58	Metal	Beech 58 Series (Continental)			X
TEXTRON AVIATION Inc.	65	Metal	Beech 65-80 Series (Lycoming)			X
TEXTRON AVIATION Inc.	70	Metal	Beech 65-80 Series (Lycoming)			X
TEXTRON AVIATION Inc.	65-80	Metal	Beech 65-80 Series (Lycoming)			X
TEXTRON AVIATION Inc.	65-88	Metal	Beech 65-80 Series (Lycoming)			X
TEXTRON AVIATION Inc.	65-A80	Metal	Beech 65-80 Series (Lycoming)			X
TEXTRON AVIATION Inc.	65-A80-8800	Metal	Beech 65-80 Series (Lycoming)			X
TEXTRON AVIATION Inc.	65-B80	Metal	Beech 65-80 Series (Lycoming)			X
TEXTRON AVIATION Inc.	A65	Metal	Beech 65-80 Series (Lycoming)			X
TEXTRON AVIATION Inc.	A65-8200	Metal	Beech 65-80 Series (Lycoming)			Χ
TEXTRON AVIATION Inc.	95-B55	Metal	Beech 95 Series (Continental)			Х



(	GROUP 3: PISTO	N-ENGINE AERC	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
Te Holder	Model	structure	type rating endorsement	11010	≤2T	>2T
TEXTRON AVIATION Inc.	95-B55A	Metal	Beech 95 Series (Continental)			X
TEXTRON AVIATION Inc.	95-B55B	Metal	Beech 95 Series (Continental)			X
TEXTRON AVIATION Inc.	95-C55	Metal	Beech 95 Series (Continental)			X
TEXTRON AVIATION Inc.	95-C55A	Metal	Beech 95 Series (Continental)			X
TEXTRON AVIATION Inc	95	Metal	Beech 95 Series (Lycoming)	ELA2	Χ	
TEXTRON AVIATION Inc	95-55	Metal	Beech 95 Series (Lycoming)			X
TEXTRON AVIATION Inc	95-A55	Metal	Beech 95 Series (Lycoming)			X
TEXTRON AVIATION Inc	B95	Metal	Beech 95 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc	B95A	Metal	Beech 95 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc	D95A	Metal	Beech 95 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc	E95	Metal	Beech 95 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc.	175	Metal	Cessna 175 Series (Continental)	ELA1	Χ	
TEXTRON AVIATION Inc.	175A	Metal	Cessna 175 Series (Continental)	ELA1	Χ	
TEXTRON AVIATION Inc.	175B	Metal	Cessna 175 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	175C	Metal	Cessna 175 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	177	Metal	Cessna 177 Series (Lycoming)	ELA1	X	
TEXTRON AVIATION Inc.	177A	Metal	Cessna 177 Series (Lycoming)	ELA1	X	
TEXTRON AVIATION Inc.	177B	Metal	Cessna 177 Series (Lycoming)	ELA1	X	
TEXTRON AVIATION Inc.	177RG	Metal	Cessna 177 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc.	180	Metal	Cessna 180 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	180A	Metal	Cessna 180 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	180B	Metal	Cessna 180 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	180C	Metal	Cessna 180 Series (Continental)	ELA2	X	



(	GROUP 3: PISTO	N-ENGINE AERO	OPLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
		structure	type rating endorsement		≤2T	>2T
TEXTRON AVIATION Inc.	180D	Metal	Cessna 180 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	180E	Metal	Cessna 180 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	180F	Metal	Cessna 180 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	180G	Metal	Cessna 180 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	180H	Metal	Cessna 180 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	180J	Metal	Cessna 180 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	180K	Metal	Cessna 180 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	185	Metal	Cessna 185 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	185A	Metal	Cessna 185 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	185B	Metal	Cessna 185 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	185C	Metal	Cessna 185 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	185D	Metal	Cessna 185 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	185E	Metal	Cessna 185 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	A185E	Metal	Cessna 185 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	A185F	Metal	Cessna 185 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	188	Metal	Cessna 188 (Continental)	ELA2	Χ	
TEXTRON AVIATION Inc.	188A	Metal	Cessna 188 (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	188B	Metal	Cessna 188 (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	A188	Metal	Cessna 188 (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	A188A	Metal	Cessna 188 (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	A188B	Metal	Cessna 188 (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	T188C	Metal	Cessna 188 (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	206	Metal	Cessna 206 Series (Continental)	ELA2	Χ	



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
		structure	type rating endorsement		≤2T	>2T
TEXTRON AVIATION Inc.	P206	Metal	Cessna 206 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	P206A	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	P206B	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	P206C	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	P206D	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	P206E	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	TP206A	Metal	Cessna 206 Series (Continental)	ELA2	Χ	
TEXTRON AVIATION Inc.	TP206B	Metal	Cessna 206 Series (Continental)	ELA2	Χ	
TEXTRON AVIATION Inc.	TP206C	Metal	Cessna 206 Series (Continental)	ELA2	Χ	
TEXTRON AVIATION Inc.	TP206D	Metal	Cessna 206 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	TP206E	Metal	Cessna 206 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	TU206A	Metal	Cessna 206 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	TU206B	Metal	Cessna 206 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	TU206C	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	TU206D	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	TU206E	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	TU206F	Metal	Cessna 206 Series (Continental)	ELA2	Χ	
TEXTRON AVIATION Inc.	TU206G	Metal	Cessna 206 Series (Continental)	ELA2	Χ	
TEXTRON AVIATION Inc.	U206	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	U206A	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	U206B	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	U206C	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	U206D	Metal	Cessna 206 Series (Continental)	ELA2	X	



(	GROUP 3: PISTO	N-ENGINE AERO	DPLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
		structure	type rating endorsement		≤2T	>2T
TEXTRON AVIATION Inc.	U206E	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	U206F	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	U206G	Metal	Cessna 206 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	206H	Metal	Cessna 206 Series (Lycoming)	ELA2	Х	
TEXTRON AVIATION Inc.	T206H	Metal	Cessna 206 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc.	207	Metal	Cessna 207 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	207A	Metal	Cessna 207 Series (Continental)	ELA2	Χ	
TEXTRON AVIATION Inc.	T207	Metal	Cessna 207 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	T207A	Metal	Cessna 207 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	210	Metal	Cessna 210 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	210-5 (205)	Metal	Cessna 210 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	210-5A (205A)	Metal	Cessna 210 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	210A	Metal	Cessna 210 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	210B	Metal	Cessna 210 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	210C	Metal	Cessna 210 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	210D	Metal	Cessna 210 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	210E	Metal	Cessna 210 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	210F	Metal	Cessna 210 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	210G	Metal	Cessna 210 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	210H	Metal	Cessna 210 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	210J	Metal	Cessna 210 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	210K	Metal	Cessna 210 Series (Continental)	ELA2	Χ	
TEXTRON AVIATION Inc.	210L	Metal	Cessna 210 Series (Continental)	ELA2	Χ	



(	GROUP 3: PISTO	N-ENGINE AERC	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
Te ficiaci	Model	structure	type rating endorsement	11010	≤2T	>2T
TEXTRON AVIATION Inc.	210M	Metal	Cessna 210 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	210N	Metal	Cessna 210 Series (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	210R	Metal	Cessna 210 Series (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	310	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	320	Metal	Cessna 310/320 Series (Continental)			Х
TEXTRON AVIATION Inc.	310B	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310C	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310D	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310F	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310G	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310H	Metal	Cessna 310/320 Series (Continental)			Х
TEXTRON AVIATION Inc.	3101	Metal	Cessna 310/320 Series (Continental)			Х
TEXTRON AVIATION Inc.	310J	Metal	Cessna 310/320 Series (Continental)			Х
TEXTRON AVIATION Inc.	310J-1	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310K	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310L	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310N	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310P	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310Q	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	310R	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	320-1	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	320A	Metal	Cessna 310/320 Series (Continental)			X
TEXTRON AVIATION Inc.	320B	Metal	Cessna 310/320 Series (Continental)			X



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)								
TC Holdon	Madal	Type of	Part-66	Note	MT	ОМ		
TC Holder	Model	structure	type rating endorsement	Note	≤2T	>2T		
TEXTRON AVIATION Inc.	320C	Metal	Cessna 310/320 Series (Continental)			X		
TEXTRON AVIATION Inc.	320D	Metal	Cessna 310/320 Series (Continental)			X		
TEXTRON AVIATION Inc.	320E	Metal	Cessna 310/320 Series (Continental)			X		
TEXTRON AVIATION Inc.	320F	Metal	Cessna 310/320 Series (Continental)			X		
TEXTRON AVIATION Inc.	E310H	Metal	Cessna 310/320 Series (Continental)			X		
TEXTRON AVIATION Inc.	E310J	Metal	Cessna 310/320 Series (Continental)			X		
TEXTRON AVIATION Inc.	T310P	Metal	Cessna 310/320 Series (Continental)			X		
TEXTRON AVIATION Inc.	T310Q	Metal	Cessna 310/320 Series (Continental)			X		
TEXTRON AVIATION Inc.	T310R	Metal	Cessna 310/320 Series (Continental)			Х		
TEXTRON AVIATION Inc.	321	Metal	Cessna 321 (Continental)	ELA2	Х			
TEXTRON AVIATION Inc.	335	Metal	Cessna 335 (Continental)			Х		
TEXTRON AVIATION Inc.	336	Metal	Cessna 336 (Continental)	ELA2	Х			
TEXTRON AVIATION Inc.	340	Metal + Pressurised	Cessna 340 (Continental)			X		
TEXTRON AVIATION Inc.	340A	Metal + Pressurised	Cessna 340 (Continental)			X		
TEXTRON AVIATION Inc.	LC40-550FG	Composite	Cessna C300/C350/C400 (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	LC41-550FG	Composite	Cessna C300/C350/C400 (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	LC42-550FG	Composite	Cessna C300/C350/C400 (Continental)	ELA2	Х			
TEXTRON AVIATION Inc.	T240	Composite	Cessna C300/C350/C400 (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	P210N	Metal + Pressurised	Cessna P210 (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	P210R	Metal + Pressurised	Cessna P210 (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	T210F	Metal	Cessna T210 (Continental)	ELA2	Х			
TEXTRON AVIATION Inc.	T210G	Metal	Cessna T210 (Continental)	ELA2	Х			
TEXTRON AVIATION Inc.	T210H	Metal	Cessna T210 (Continental)	ELA2	X			



(	GROUP 3: PISTO	N-ENGINE AERC	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note		ОМ
		structure	type rating endorsement		≤2T	>2T
TEXTRON AVIATION Inc.	T210J	Metal	Cessna T210 (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	T210K	Metal	Cessna T210 (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	T210L	Metal	Cessna T210 (Continental)	ELA2	Х	
TEXTRON AVIATION Inc.	T210M	Metal	Cessna T210 (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	T210N	Metal	Cessna T210 (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	T210R	Metal	Cessna T210 (Continental)	ELA2	X	
TEXTRON AVIATION Inc.	T303	Metal	Cessna T303 (Continental)			X
TEXTRON AVIATION Inc.	150	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150A	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150B	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150C	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150D	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	Х	
TEXTRON AVIATION Inc.	150E	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150F	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150G	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150H	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150J	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150K	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150L	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	150M	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	A150K	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	A150L	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	
TEXTRON AVIATION Inc.	A150M	Metal	Cessna/Reims-Cessna 150/F150 Series (Continental)	ELA1	X	



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)									
TC Holder	Model	Type of	Part-66	Note	MT	ОМ			
TC Holder	iviouei	structure	type rating endorsement	Note	≤2T	>2T			
TEXTRON AVIATION Inc.	152	Metal	Cessna/Reims-Cessna 152/F152 Series (Lycoming)	ELA1	X				
TEXTRON AVIATION Inc.	A152	Metal	Cessna/Reims-Cessna 152/F152 Series (Lycoming)	ELA1	X				
TEXTRON AVIATION Inc.	172	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	172A	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	172B	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	172C	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	172D	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	172E	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	172F	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	172G	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	172H	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	P172D	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	R172E	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	R172F	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	R172G	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	R172H	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	R172J	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	R172K	Metal	Cessna/Reims-Cessna 172/F172 Series (Continental)	ELA1	X				
TEXTRON AVIATION Inc.	1721	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X				
TEXTRON AVIATION Inc.	172K	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X				
TEXTRON AVIATION Inc.	172L	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X				
TEXTRON AVIATION Inc.	172M	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X				
TEXTRON AVIATION Inc.	172N	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X				



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)								
TC Holder	Model	Type of	Part-66	Note	MT	ОМ		
TC Holder	Model	structure	type rating endorsement	Note	≤2T	>2T		
TEXTRON AVIATION Inc.	172P	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X			
TEXTRON AVIATION Inc.	172Q	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X			
TEXTRON AVIATION Inc.	172R	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X			
TEXTRON AVIATION Inc.	172RG	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA2	X			
TEXTRON AVIATION Inc.	172S	Metal	Cessna/Reims-Cessna 172/F172 Series (Lycoming)	ELA1	X			
TEXTRON AVIATION Inc.	182	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA1	X			
TEXTRON AVIATION Inc.	182A	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	182B	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	182C	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	182D	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	182E	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	182F	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	182G	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	182H	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	182J	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	182K	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	182L	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	182M	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	182N	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	182P	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	Χ			
TEXTRON AVIATION Inc.	182Q	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	182R	Metal	Cessna/Reims-Cessna 182/F182 Series (Continental)	ELA2	X			
TEXTRON AVIATION Inc.	R182	Metal	Cessna/Reims-Cessna 182/F182 Series (Lycoming)	ELA2	X			



	GROUP 3: PISTO	N-ENGINE AERC	DPLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of structure	Part-66 type rating endorsement	Note	MT ≤2T	OM >2T
TEXTRON AVIATION Inc.	T182T	Metal	Cessna/Reims-Cessna 182/F182 Series (Lycoming)	ELA2	X	721
TEXTRON AVIATION Inc.	182S	Metal	Cessna/Reims-Cessna 182/F182 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc.	182T	Metal	Cessna/Reims-Cessna 182/F182 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc.	T337H-SP	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	337	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	ELA2	X	
TEXTRON AVIATION Inc.	337A	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	ELA2	X	
TEXTRON AVIATION Inc.	337B	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	ELA2	X	
TEXTRON AVIATION Inc.	337C	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	ELA2	X	
TEXTRON AVIATION Inc.	337D	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	ELA2	X	
TEXTRON AVIATION Inc.	337E	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	337F	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	337G	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	337H	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	M337B	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	ELA2	X	
TEXTRON AVIATION Inc.	Т337В	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)	ELA2	X	
TEXTRON AVIATION Inc.	T337C	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	T337D	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X



	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MTOM	
IC Holder	Model	structure	type rating endorsement	Note	≤2T	>2T
TEXTRON AVIATION Inc.	T337E	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	T337F	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	T337G	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	Т337Н	Metal	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	P337H	Metal + Pressurised	Cessna/Reims-Cessna 337 Series (Continental) (not pressurised)			X
TEXTRON AVIATION Inc.	T182	Metal	Cessna/Reims-Cessna T182 Series (Lycoming)	ELA2	X	
TEXTRON AVIATION Inc.	TR182	Metal	Cessna/Reims-Cessna T182 Series (Lycoming)	ELA2	X	
THRUSH AIRCRAFT	S2R	Metal	Thrush S2R Series (PW R1340)	The Model S2R also designated as S-2R or S2-R.		X
THRUSH AIRCRAFT	S2R-R3S	Metal	Thrush S2R (Wsk PZL-3S)			X
THRUSH AIRCRAFT	S2R-R1340	Metal	Thrush S2R Series (PW R1340)			X
THRUSH AIRCRAFT	S2R-R1820	Metal	Thrush S2R Series (Wright R-1820)			X
TOMARK, s.r.o.	Viper SD-4 RTC	Metal	Tomark Viper SD-4 (Rotax)	ELA1. Restricted TC.	X	
TOMARK, s.r.o.	Viper SD-4 Night-VFR	Metal	Tomark Viper SD-4 (Rotax)	ELA1. Restricted TC.	X	
TRUE FLIGHT Holdings	AA-1	Metal	Grumman/American AA-1 Series (Lycoming)	ELA1	X	
TRUE FLIGHT Holdings	AA-1A	Metal	Grumman/American AA-1 Series (Lycoming)	ELA1	Χ	
TRUE FLIGHT Holdings	AA-1B	Metal	Grumman/American AA-1 Series (Lycoming)	ELA1	X	
TRUE FLIGHT Holdings	AA-1C	Metal	Grumman/American AA-1 Series (Lycoming)	ELA1	X	
TRUE FLIGHT Holdings	AA-5	Metal	Grumman/American AA-5 Series (Lycoming)	ELA1	X	
TRUE FLIGHT Holdings	AA-5A	Metal	Grumman/American AA-5 Series (Lycoming)	ELA1	X	
TRUE FLIGHT Holdings	AA-5B	Metal	Grumman/American AA-5 Series (Lycoming)	ELA1	X	



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note		ОМ
		structure	type rating endorsement		≤2T	>2T
TRUE FLIGHT Holdings	AG-5B	Metal	Grumman/American AA-5 Series (Lycoming)	ELA1	X	
TWIN COMMANDER AIRCRAFT Corporation	500A	Metal	Twin Commander 500 Series (Continental)			X
TWIN COMMANDER AIRCRAFT Corporation	500	Metal	Twin Commander 500 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	520	Metal	Twin Commander 500 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	560	Metal	Twin Commander 500 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	500B	Metal	Twin Commander 500 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	500S	Metal	Twin Commander 500 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	500U	Metal	Twin Commander 500 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	560A	Metal	Twin Commander 500 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	560E	Metal	Twin Commander 500 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	685	Metal + Pressurised	Twin Commander 600 Series (Continental)			X
TWIN COMMANDER AIRCRAFT Corporation	680	Metal	Twin Commander 600 Series (Lycoming)			X
TWIN COMMANDER	560F	Metal	Twin Commander 600 Series (Lycoming)			X



(	GROUP 3: PISTO	N-ENGINE AERC	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
TC Holder	Iviouei	structure	type rating endorsement	Note	≤2T	>2T
AIRCRAFT Corporation						
TWIN COMMANDER AIRCRAFT Corporation	680E	Metal	Twin Commander 600 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	680F	Metal	Twin Commander 600 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	680FL	Metal	Twin Commander 600 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	720	Metal + Pressurised	Twin Commander 600 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	680FL(P)	Metal + Pressurised	Twin Commander 600 Series (Lycoming)			X
TWIN COMMANDER AIRCRAFT Corporation	700	Metal + Pressurised	Twin Commander 700 Series (Lycoming)			X
VULCANAIR	P.68 'Observer 2'	Metal	Vulcanair P.68 Series (Lycoming)			X
VULCANAIR	P.68 'Observer'	Metal	Vulcanair P.68 Series (Lycoming)	ELA2	Х	
VULCANAIR	P.68 'Victor'	Metal	Vulcanair P.68 Series (Lycoming)	ELA2	X	
VULCANAIR	P.68B 'Victor'	Metal	Vulcanair P.68 Series (Lycoming)	ELA2	X	
VULCANAIR	P.68C	Metal	Vulcanair P.68 Series (Lycoming)	ELA2	X	
VULCANAIR	P.68C-TC	Metal	Vulcanair P.68 Series (Lycoming)	ELA2	X	
VULCANAIR	P.68R 'Victor'	Metal	Vulcanair P.68 Series (Lycoming)	ELA2	X	
VULCANAIR	P.68TC 'Observer'	Metal	Vulcanair P.68 Series (Lycoming)	ELA2	X	
VULCANAIR	P.64 'Oscar'	Metal	Vulcanair P.64 series/V1.0/V1.1 (Lycoming)	ELA1	X	
VULCANAIR	P.64B 'Oscar 200'	Metal	Vulcanair P.64 series/V1.0/V1.1 (Lycoming)	ELA1	X	
VULCANAIR	P.64B 'Oscar B 1155'	Metal	Vulcanair P.64 series/V1.0/V1.1 (Lycoming)	ELA1	X	



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note		ОМ
VULCANAIR	P.64B 'Oscar B'	structure Metal	type rating endorsement  Vulcanair P.64 series/V1.0/V1.1 (Lycoming)	ELA1	≤2T X	>2T
VULCANAIR	VULCANAIR V1.0 (formerly P.64B 'OSCAR B 1155')	Metal	Vulcanair P.64 series/V1.0/V1.1 (Lycoming)	ELA1		
VULCANAIR	VULCANAIR V1.1 (formerly P.64B 'Oscar 200'	Metal	Vulcanair P.64 series/V1.0/V1.1 (Lycoming)	ELA1		
VULCANAIR	P.66B 'Oscar 100'	Metal	Vulcanair P.66 series/ V1.100L/V1.150L/V1.CL (Lycoming)	ELA1	X	
VULCANAIR	P.66B 'Oscar 150'	Metal	Vulcanair P.66 series/V1.100L/V1.150L/V1.CL (Lycoming)	ELA1	X	
VULCANAIR	P.66C 'CHARLIE'	Metal	Vulcanair P.66 series/ V1.100L/V1.150L/V1.CL (Lycoming)	ELA1	X	
VULCANAIR	VULCANAIR V1.100L (formerly P.66B 'Oscar 100')	Metal	Vulcanair P.66 series/ V1.100L/V1.150L/V1.CL (Lycoming)	ELA1		
VULCANAIR	VULCANAIR V1.150L (formerly P.66B 'Oscar 150')	Metal	Vulcanair P.66 series/ V1.100L/V1.150L/V1.CL (Lycoming)	ELA1		
VULCANAIR	VULCANAIR V1.CL (formerly P.66C 'Charlie')	Metal	Vulcanair P.66 series/ V1.100L/V1.150L/V1.CL (Lycoming)	ELA1		
WACO Aircraft Company	YMF F5	Wood + Metal tubing Fabric	Waco YMF (Jacobs)	ELA2	X	
WACO Aircraft Company	YMF F5C	Wood + Metal tubing Fabric	Waco YMF (Jacobs)	ELA2	X	
WACO Classic Aircraft Corp	2T-1A-1	Wood + Metal tubing Fabric	Waco 2T Series (Lycoming)	ELA1	X	
WACO Classic Aircraft Corp	2T-1A-2	Wood + Metal tubing Fabric	Waco 2T Series (Lycoming)	ELA1	X	



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)						
TC Holder	Model	Type of	Part-66	Note	MT	ОМ
i C Holder	iviodei	structure	type rating endorsement	Note	≤2T	>2T
WASSMER (Aircraft with SAS)	CE 43	Metal	CERVA CE43 (Lycoming)	ELA2	X	
WASSMER (Aircraft with SAS)	WA 4/21	Wood + Metal tubing Fabric	WA4/21 Series (Lycoming)	ELA2	X	
WASSMER (Aircraft with SAS)	WA 4/21/250 'Super 4/21'	Wood + Metal tubing Fabric	WA4/21 Series (Lycoming)	ELA2	X	
WASSMER (Aircraft with SAS)	WA 40 A	Wood + Metal tubing Fabric	WA40 Series (Lycoming)	ELA1	X	
WASSMER (Aircraft with SAS)	WA 40 'SUPER IV'	Wood + Metal tubing Fabric	WA40 Series (Lycoming)	ELA1	X	
WASSMER (Aircraft with SAS)	WA 40 B 'Super IV Sancy'	Wood + Metal tubing Fabric	WA40 Series (Lycoming)	ELA1	X	
WASSMER (Aircraft with SAS)	WA 41 'Baladou'	Wood + Metal tubing Fabric	WA41 (Lycoming)	ELA1	X	
WITHOUT TC HOLDER - ORPHANED (ex Fournier, René)	RF 3	Wood	RF 3 (Rectimo)	ELA1	X	
WITHOUT TC HOLDER - ORPHANED (ex Fournier, René)	RF 4	Wood	RF 4 (VW)	ELA1	X	
WITHOUT TC HOLDER - ORPHANED (ex Fournier, René)	RF 47	Wood	RF 47 (Limbach)	ELA1	X	
WITHOUT TC HOLDER - ORPHANED (ex Fournier, René)	RF.6.B. 100	Wood	RF 6B (Continental)	ELA1	X	
WITHOUT TC HOLDER - ORPHANED (ex Fournier, René)	RF.6.B. 120	Wood	RF 6B (Lycoming)	ELA1	X	
WITHOUT TC HOLDER - ORPHANED (ex Fournier, René)	RF.6.B. 90	Wood	RF 6B (Lycoming)	ELA1	X	
XtremeAir GmbH	XA41	Composite	XtremeAir XA42 (Lycoming)	ELA1	Χ	
XtremeAir GmbH	XA42	Composite	XtremeAir XA42 (Lycoming)	ELA1	Χ	



	GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)							
TC Holder	Model	Type of	Part-66	Note	МТ	ОМ		
i C Holder	Model	structure	type rating endorsement	Note	≤2T	>2T		
YAKOVLEV (Aircraft with SAS)	YAK-18T	Metal	Yakovlev YAK-18T (Vedeneyev)	ELA2	X			
ZAKŁADY LOTNICZE	EM-11C ORKA	Composite	EM-11 (Lycoming)	ELA2	X			
ZENAIR LTD	CH 2000	Metal	Zenair CH2000 (Lycoming)	ELA1	Χ			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 143 L	Metal	Zlin Z-143 L (Lycoming)	ELA1	Х			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 143 Lsi	Metal	Zlin Z-143 L (Lycoming)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 242 L	Metal	Zlin Z-242 L (Lycoming)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 126	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 126 T	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 226 A	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 226 B	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 226 M	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 226 MS	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 226 T	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 326	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 326 A	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 326 M	Metal	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 526	Metal + Metal tubing & fabric	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X			



(	GROUP 3: PISTO	N-ENGINE AERO	PLANES (other than those in Grou	ıp 1)		
TC Holder	Model	Type of	Part-66	Note		ОМ
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 526 A	structure  Metal +  Metal tubing & fabric	type rating endorsement  Zlin Z-26 Series (Walter  Minor/AVIA)	ELA1	≤2T X	>2T
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 526 AFS	Metal + Metal tubing & fabric	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 526 AFS-V	Metal + Metal tubing & fabric	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 526 F	Metal + Metal tubing & fabric	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 526 M	Metal + Metal tubing & fabric	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 726	Metal + Metal tubing & fabric	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 726 K	Metal + Metal tubing & fabric	Zlin Z-26 Series (Walter Minor/AVIA)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 142	Metal	Zlin Z-42 Series (LOM)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 142 C	Metal	Zlin Z-42 Series (LOM)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 42 M	Metal	Zlin Z-42 Series (LOM)	ELA1	Х	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 42 MU	Metal	Zlin Z-42 Series (LOM)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 43	Metal	Zlin Z-43 Series (LOM)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 50 M	Metal	Zlin Z-50 Series (LOM)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 50 L	Metal	Zlin Z-50L Series (Lycoming)	ELA1	Х	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 50 LA	Metal	Zlin Z-50L Series (Lycoming)	ELA1	X	
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 50 LS	Metal	Zlin Z-50L Series (Lycoming)	ELA1	X	



GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1)								
TC Holder	Model	Type of structure	Part-66 type rating endorsement	Note	MT ≤2T	OM >2T		
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 50 LX	Metal	Zlin Z-50L Series (Lycoming)	ELA1	X			
ZLIN AIRCRAFT (MORAVAN AVIATION)	Z 526 L	Metal	Zlin Z-526 L (Lycoming)	ELA1	X			

## **STCs in GROUP 3 AEROPLANES**

ED Decision 2019/024/R

GRO	UP 3: PISTON-	ENGINE AERO	OPLANES (other than those in Group	1) (STC)		
STC holder	Model	Type of	Part-66	Note	MT	ОМ
STC noider	iviodei	structure	type rating endorsement	Note	≤2T	>2T
BARBARA AND ROBERT WILLIAMS (STC)	150	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150A	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150B	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150C	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150D	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150E	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150F	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150G	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150H	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150J	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	
BARBARA AND ROBERT WILLIAMS (STC)	150K	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X	



GRO	GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1) (STC)							
STC holder	Model	Type of	Part-66	Note	MTO			
BARBARA AND	150L	structure Metal	type rating endorsement Cessna 150 Series (Lycoming)	ELA1.	≤2T X	>2T		
ROBERT WILLIAMS (STC)			, , , , , , , , , , , , , , , , , , ,	STC No 10015952				
BARBARA AND ROBERT WILLIAMS (STC)	150M	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X			
BARBARA AND ROBERT WILLIAMS (STC)	A150K	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X			
BARBARA AND ROBERT WILLIAMS (STC)	A150L	Metal	Cessna 150 Series (Lycoming)	ELA1. STC No 10015952	X			
CEAPR (STC)	DR 400/120 D	Wood	Robin DR 400 (Thielert)	ELA1. STC No 10014219	X			
CEAPR (STC)	DR 400/140 B	Wood	Robin DR 400 (Thielert)	ELA1. STC No 10014219	X			
CEAPR (STC)	DR 400/180 R	Wood	Robin DR 400 (Thielert)	ELA1. STC No 10014219	X			
CEAPR (STC)	DR 400/200 R	Wood	Robin DR 400 (Thielert)	ELA1. STC No 10014219	X			
CEAPR (STC)	DR 400/RP	Wood	Robin DR 400 (Thielert)	ELA1. STC No 10014219	X			
HOFFMANN GmbH & Co. KG (STC)	150	Metal	Cessna 150/A150/F150/FA150 (Rotax)	ELA1. STC	Х			
HOFFMANN GmbH & Co. KG (STC)	A150	Metal	Cessna 150/A150/F150/FA150 (Rotax)	ELA1. STC	Х			
HOFFMANN GmbH & Co. KG (STC)	F150	Metal	Cessna 150/A150/F150/FA150 (Rotax)	ELA1. STC	Х			
HOFFMANN GmbH & Co. KG (STC)	FA150	Metal	Cessna 150/A150/F150/FA150 (Rotax)	ELA1. STC	Х			
LTB SAMMET GmbH (STC)	150D	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X			
LTB SAMMET GmbH (STC)	150E	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X			
LTB SAMMET GmbH (STC)	150F	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X			
LTB SAMMET GmbH (STC)	150G	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X			



GRO	GROUP 3: PISTON-ENGINE AEROPLANES (other than those in Group 1) (STC)						
STC holder	Model	Type of	Part-66	Note		ОМ	
		structure	type rating endorsement		≤2T	>2T	
LTB SAMMET GmbH (STC)	150H	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	150J	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	150K	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	150L	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	150M	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	A150L	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	F150G	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	F150H	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	F150J	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	F150K	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	F150L	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	F150M	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
LTB SAMMET GmbH (STC)	FA150K	Metal	Cessna 150 (Rotax)	ELA1. STC No 10015134	X		
PORSCHE AG (STC)	182Q	Metal	Cessna 182Q/F182Q (Porsche)	ELA2. STC	Χ		
PORSCHE AG (STC)	F182Q	Metal	Cessna 182Q/F182Q (Porsche)	ELA2. STC	Χ		
SAFRAN ENGINES SAS (STC)	182M	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10013975			
SAFRAN ENGINES SAS (STC)	182N	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10013975			



GRO	UP 3: PISTON-	ENGINE AERO	DPLANES (other than those in Group	1) (STC)	
STC holder	Model	Type of structure	Part-66 type rating endorsement	Note	MTOM ≤2T >2T
SAFRAN ENGINES SAS (STC)	182P	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10013975	
SAFRAN ENGINES SAS (STC)	182Q	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10013975	
SAFRAN ENGINES SAS (STC)	182R	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10013975	
SAFRAN ENGINES SAS (STC)	F182P	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10013975	
SAFRAN ENGINES SAS (STC)	F182Q	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10013975	
SMA ENGINES INC. (STC)	182Q	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10016495	Х
SMA ENGINES INC. (STC)	182R	Metal	Cessna 182/F182 Series (SMA)	ELA2. STC No 10016495	Х
SPERL TECHNIK & ENTWICKLUNGEN (STC)	150	Metal	Cessna 150/A150/F150/FA150 (Rotax)	ELA1. STC	X
SPERL TECHNIK & ENTWICKLUNGEN (STC)	A150	Metal	Cessna 150/A150/F150/FA150 (Rotax)	ELA1. STC	X
SPERL TECHNIK & ENTWICKLUNGEN (STC)	F150	Metal	Cessna 150/A150/F150/FA150 (Rotax)	ELA1. STC	X
SPERL TECHNIK & ENTWICKLUNGEN (STC)	FA150	Metal	Cessna 150/A150/F150/FA150 (Rotax)	ELA1. STC	X
TECHNIFY MOTORS GmbH (STC)	172F	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	172G	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	172H	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	Х
TECHNIFY MOTORS GmbH (STC)	1721	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	Х
TECHNIFY MOTORS GmbH (STC)	172K	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X



GRO	UP 3: PISTON-	ENGINE AERO	OPLANES (other than those in Group	1) (STC)	
STC holder	Model	Type of structure	Part-66 type rating endorsement	Note	MTOM ≤2T >2T
TECHNIFY MOTORS GmbH (STC)	172L	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	172M	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	172N	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	172P	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	172R	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	172S	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	F172F	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	F172G	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	F172H	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	F172K	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	F172L	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	F172M	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	F172N	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	F172P	Metal	Cessna 172/F172 (Technify)	ELA1. STC No 10014287	X
TECHNIFY MOTORS GmbH (STC)	T206H	Metal	Cessna 206 (Technify)	ELA2. STC No 10014500	X
TECHNIFY MOTORS GmbH (STC)	TU206F	Metal	Cessna 206 (Technify)	ELA2. STC No 10014500	X

GRO	UP 3: PISTON-	ENGINE AERO	OPLANES (other than those in Group	1) (STC)	
STC holder	Model	Type of structure	Part-66 type rating endorsement	Note	MTOM ≤2T >2T
TECHNIFY MOTORS GmbH (STC)	TU206G	Metal	Cessna 206 (Technify)	ELA2. STC No 10014500	X
TECHNIFY MOTORS GmbH (STC)	U206F	Metal	Cessna 206 (Technify)	ELA2. STC No 10014500	X
TECHNIFY MOTORS GmbH (STC)	U206G	Metal	Cessna 206 (Technify)	ELA2. STC No 10014500	X
TECHNIFY MOTORS GmbH (STC)	U206H	Metal	Cessna 206 (Technify)	ELA2. STC No 10014500	X
TECHNIFY MOTORS GmbH (STC)	SR22	Composite	Cirrus SR22 (Technify)	ELA2. STC	X
TECHNIFY MOTORS GmbH (STC)	PA-28-140	Metal	Piper PA-28-140/150/151/160/ 161/180/181 (Technify)	ELA1. STC No 10014364	X
TECHNIFY MOTORS GmbH (STC)	PA-28-150	Metal	Piper PA-28-140/150/151/160/ 161/180/181 (Technify)	ELA1. STC No 10014364	X
TECHNIFY MOTORS GmbH (STC)	PA-28-151	Metal	Piper PA-28-140/150/151/160/ 161/180/181 (Technify)	ELA1. STC No 10014364	X
TECHNIFY MOTORS GmbH (STC)	PA-28-160	Metal	Piper PA-28-140/150/151/160/ 161/180/181 (Technify)	ELA1. STC No 10014364	X
TECHNIFY MOTORS GmbH (STC)	PA-28-161	Metal	Piper PA-28-140/150/151/160/ 161/180/181 (Technify)	ELA1. STC No 10014364	X
TECHNIFY MOTORS GmbH (STC)	PA-28-180	Metal	Piper PA-28-140/150/151/160/ 161/180/181 (Technify)	ELA1. STC No 10014364	X
TECHNIFY MOTORS GmbH (STC)	PA-28-181	Metal	Piper PA-28-140/150/151/160/ 161/180/181 (Technify)	ELA1. STC No 10014364	X



## **GROUP 4 SAILPLANES**

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GROUP 4 SAILPLANES			
TC Holder	Model	Type of structure	Note
AEROCLUBUL ROMANIEI	IS-28B2	metal	
AEROCLUBUL ROMANIEI	IS-29D	metal	
AEROCLUBUL ROMANIEI	IS-29D2	metal	
AEROCLUBUL ROMANIEI	IS-30	metal	
AEROCLUBUL ROMANIEI	IS-32A	metal	
AIRBUS DEFENCE AND SPACE GmbH	FS 24 "Phoenix T"	composite	
AIRBUS DEFENCE AND SPACE GmbH	FS 24 "Phoenix T0"	composite	
AIRBUS DEFENCE AND SPACE GmbH	FS 24 "Phoenix"	composite	
AIRBUS DEFENCE AND SPACE GmbH	Phoebus A0	composite	
AIRBUS DEFENCE AND SPACE GmbH	Phoebus A1	composite	
AIRBUS DEFENCE AND SPACE GmbH	Phoebus B1	composite	
AIRBUS DEFENCE AND SPACE GmbH	Phoebus C	composite	
ALEXANDER SCHLEICHER	AS 12	composite	
ALEXANDER SCHLEICHER	ASG 32	composite	The model has also powered variants.
ALEXANDER SCHLEICHER	ASG 32 MI	composite	
ALEXANDER SCHLEICHER	ASH 25	composite	
ALEXANDER SCHLEICHER	ASH 26	composite	
ALEXANDER SCHLEICHER	AS-K 13	metal-tube, wood	
ALEXANDER SCHLEICHER	ASK 18	metal-tube, wood	
ALEXANDER SCHLEICHER	ASK 18 B	metal-tube, wood	
ALEXANDER SCHLEICHER	ASK 21	composite	
ALEXANDER SCHLEICHER	ASK 21 B	composite	
ALEXANDER SCHLEICHER	ASK 23	composite	
ALEXANDER SCHLEICHER	ASK 23 B	composite	
ALEXANDER SCHLEICHER	ASW 12	composite	
ALEXANDER SCHLEICHER	ASW 12 BV	composite	
ALEXANDER SCHLEICHER	ASW 15	composite	
ALEXANDER SCHLEICHER	ASW 15 B	composite	
ALEXANDER SCHLEICHER	ASW 17	composite	
ALEXANDER SCHLEICHER	ASW 19	composite	
ALEXANDER SCHLEICHER	ASW 19 B	composite	
ALEXANDER SCHLEICHER	ASW 20	composite	
ALEXANDER SCHLEICHER	ASW 20 B	composite	
ALEXANDER SCHLEICHER	ASW 20 BL	composite	
ALEXANDER SCHLEICHER	ASW 20 C	composite	
ALEXANDER SCHLEICHER	ASW 20 CL	composite	
ALEXANDER SCHLEICHER	ASW 20 L	composite	
ALEXANDER SCHLEICHER	ASW 22	composite	
ALEXANDER SCHLEICHER	ASW 22 B	composite	
ALEXANDER SCHLEICHER	ASW 22 BE	composite	
ALEXANDER SCHLEICHER	ASW 22 BL	composite	



GROUP 4 SAILPLANES			
TC Holder	Model	Type of structure	Note
ALEXANDER SCHLEICHER	ASW 24	composite	
ALEXANDER SCHLEICHER	ASW 24 B	composite	
ALEXANDER SCHLEICHER	ASW 27	composite	
ALEXANDER SCHLEICHER	ASW 27-18	composite	
ALEXANDER SCHLEICHER	ASW 28	composite	
ALEXANDER SCHLEICHER	ASW 28-18	composite	
ALEXANDER SCHLEICHER	K 10 A	wood	
ALEXANDER SCHLEICHER	K 7	metal-tube, wood	
ALEXANDER SCHLEICHER	K 8	metal-tube, wood	
ALEXANDER SCHLEICHER	K 8 B	metal-tube, wood	
ALEXANDER SCHLEICHER	K 8 C	metal-tube, wood	
ALEXANDER SCHLEICHER	Ka 6 BR	wood	
ALEXANDER SCHLEICHER	Ka 6 BR-Pe	wood	
ALEXANDER SCHLEICHER	Ka 6 C	wood	
ALEXANDER SCHLEICHER	Ka 6 CR	wood	
ALEXANDER SCHLEICHER	Ka 6 CR-PE	wood	
ALEXANDER SCHLEICHER	Ka 6 E	wood	
ALEXANDER SCHLEICHER	Ka 6/0	wood	
ALLSTAR PZL GLIDER SP. Z.O.O.	SZD-48-3 Jantar Standard 3	composite	
ALLSTAR PZL GLIDER SP. Z.O.O.	SZD-50-3 "Puchacz"	composite	
ALLSTAR PZL GLIDER SP. Z.O.O.	SZD-51-1 "Junior"	composite	
ALLSTAR PZL GLIDER SP. Z.O.O.	SZD-55-1	composite	
ALLSTAR PZL GLIDER SP. Z.O.O.	SZD-59 "Acro"	composite	
AVIACOM.PL SP. ZO.O.	B1-PW-5	composite	
AVIACOM.PL SP. ZO.O.	B1-PW-5D	composite	
AVIONIC SPOLKA JAWNA	SZD-56-1 "Diana"	composite	
AVIONIC SPOLKA JAWNA	SZD-56-2 "Diana 2"	composite	
BARRY AVIATION, LLC	KR-03A	metal	
BLANIK AIRCRAFT CZ s.r.o.	L - 33 SÓLO	metal	
BLANIK AIRCRAFT CZ s.r.o.	L 13 A Blanik	metal	
BLANIK AIRCRAFT CZ s.r.o.	L 23 SUPER-BLANÍK	metal	
BLANIK AIRCRAFT CZ s.r.o.	L-13 "BLANÍK"	metal	
BLANIK AIRCRAFT CZ s.r.o.	L-13 AC BLANÍK	metal	
DG FLUGZEUGBAU GMBH	DG-100	composite	
DG FLUGZEUGBAU GMBH	DG-100 ELAN	composite	
DG FLUGZEUGBAU GMBH	DG-100 G	composite	
DG FLUGZEUGBAU GMBH	DG-100 G ELAN	composite	
DG FLUGZEUGBAU GMBH	DG-1000S	composite	
DG FLUGZEUGBAU GMBH	DG-200	composite	
DG FLUGZEUGBAU GMBH	DG-200/17	composite	
DG FLUGZEUGBAU GMBH	DG-200/17 C	composite	
DG FLUGZEUGBAU GMBH	DG-300	composite	
DG FLUGZEUGBAU GMBH	DG-300 CLUB ELAN	composite	



GROUP 4 SAILPLANES			
TC Holder	Model	Type of structure	Note
DG FLUGZEUGBAU GMBH	DG-300 CLUB ELAN ACRO	composite	
DG FLUGZEUGBAU GMBH	DG-300 ELAN	composite	
DG FLUGZEUGBAU GMBH	DG-300 ELAN ACRO	composite	
DG FLUGZEUGBAU GMBH	DG-500 ELAN ORION	composite	
DG FLUGZEUGBAU GMBH	DG-500 ELAN TRAINER	composite	
DG FLUGZEUGBAU GMBH	DG-500/20 ELAN	composite	
DG FLUGZEUGBAU GMBH	DG-500/22 ELAN	composite	
DG FLUGZEUGBAU GMBH	DG-600	composite	
DG FLUGZEUGBAU GMBH	DG-600/18	composite	
DG FLUGZEUGBAU GMBH	DG-800 S	composite	
DG FLUGZEUGBAU GMBH	DG-808 S	composite	
DG FLUGZEUGBAU GMBH	LS 1-0	composite	
DG FLUGZEUGBAU GMBH	LS 10-a	composite	
DG FLUGZEUGBAU GMBH	LS 1-a	composite	
DG FLUGZEUGBAU GMBH	LS 1-b	composite	
DG FLUGZEUGBAU GMBH	LS 1-c	composite	
DG FLUGZEUGBAU GMBH	LS 1-d	composite	
DG FLUGZEUGBAU GMBH	LS 1-e	composite	
DG FLUGZEUGBAU GMBH	LS 1-f	composite	
DG FLUGZEUGBAU GMBH	LS 1-f (45)	composite	
DG FLUGZEUGBAU GMBH	LS 3	composite	
DG FLUGZEUGBAU GMBH	LS 3-17	composite	
DG FLUGZEUGBAU GMBH	LS 3-a	composite	
DG FLUGZEUGBAU GMBH	LS 4	composite	
DG FLUGZEUGBAU GMBH	LS 4-a	composite	
DG FLUGZEUGBAU GMBH	LS 4-b	composite	
DG FLUGZEUGBAU GMBH	LS 6	composite	
DG FLUGZEUGBAU GMBH	LS 6-18w	composite	
DG FLUGZEUGBAU GMBH	LS 6-a	composite	
DG FLUGZEUGBAU GMBH	LS 6-b	composite	
DG FLUGZEUGBAU GMBH	LS 6-c	composite	
DG FLUGZEUGBAU GMBH	LS 6-c18	composite	
DG FLUGZEUGBAU GMBH	LS 7	composite	
DG FLUGZEUGBAU GMBH	LS 7-WL	composite	
DG FLUGZEUGBAU GMBH	LS10-s	composite	
DG FLUGZEUGBAU GMBH	LS8	composite	
DG FLUGZEUGBAU GMBH	LS8-18	composite	
DG FLUGZEUGBAU GMBH	LS8-a	composite	
DG FLUGZEUGBAU GMBH	LS8-b	composite	
DG FLUGZEUGBAU GMBH	LS8-s	composite	
DG FLUGZEUGBAU GMBH	LS8-sb	composite	
ECOFLY GMBH	FK 3	metal	
EICHELSDOERFER GMBH	mistral-c	composite	
EICHELSDOERFER GMBH	SB 5 B	wood	



	GROUP 4 SAILPLANES		
TC Holder	Model	Type of structure	Note
EICHELSDOERFER GMBH	SB 5 E	wood	
FIBERGLAS TECHNIK R. LINDNER	ASTIR CS	composite	
FIBERGLAS TECHNIK R. LINDNER	ASTIR CS 77	composite	
FIBERGLAS TECHNIK R. LINDNER	ASTIR CS Jeans	composite	
FIBERGLAS TECHNIK R. LINDNER	CLUB ASTIR II	composite	
FIBERGLAS TECHNIK R. LINDNER	GROB G 103 "TWIN II"	composite	
FIBERGLAS TECHNIK R. LINDNER	GROB G 103 A "TWIN II ACRO"	composite	
FIBERGLAS TECHNIK R. LINDNER	GROB G 103 C "TWIN III ACRO"	composite	
FIBERGLAS TECHNIK R. LINDNER	GROB G 103 C "TWIN III"	composite	
FIBERGLAS TECHNIK R. LINDNER	GROB G102 "CLUB ASTIR III b"	composite	
FIBERGLAS TECHNIK R. LINDNER	GROB G102 "CLUB ASTIR III"	composite	
FIBERGLAS TECHNIK R. LINDNER	GROB G102 "STANDARD ASTIR III"	composite	
FIBERGLAS TECHNIK R. LINDNER	SPEED ASTIR II	composite	
FIBERGLAS TECHNIK R. LINDNER	SPEED ASTIR II B	composite	
FIBERGLAS TECHNIK R. LINDNER	STANDARD ASTIR II	composite	
FIBERGLAS TECHNIK R. LINDNER	TWIN ASTIR	composite	
FIBERGLAS TECHNIK R. LINDNER	TWIN ASTIR TRAINER	composite	
GLASFASER-FLUGZEUG-SERVICE	BS 1	composite	
GLASFASER-FLUGZEUG-SERVICE	Club Libelle 205	composite	
GLASFASER-FLUGZEUG-SERVICE	Glasflügel 304	composite	
GLASFASER-FLUGZEUG-SERVICE	Glasflügel 604	composite	
GLASFASER-FLUGZEUG-SERVICE	H 301 "Libelle"	composite	
GLASFASER-FLUGZEUG-SERVICE	H 301 B	composite	
GLASFASER-FLUGZEUG-SERVICE	H 301 serial No. 1	composite	
GLASFASER-FLUGZEUG-SERVICE	Hornet	composite	
GLASFASER-FLUGZEUG-SERVICE	Hornet C	composite	
GLASFASER-FLUGZEUG-SERVICE	Kestrel	composite	
GLASFASER-FLUGZEUG-SERVICE	Mosquito	composite	
GLASFASER-FLUGZEUG-SERVICE	Mosquito B	composite	
GLASFASER-FLUGZEUG-SERVICE	Standard Libelle	composite	
GLASFASER-FLUGZEUG-SERVICE	Standard Libelle 201 B	composite	
GLASFASER-FLUGZEUG-SERVICE	Standard Libelle 203	composite	
HPH SPOL SRO	Glasflügel 304 C	composite	
HPH SPOL SRO	Glasflügel 304 CZ	composite	
HPH SPOL SRO	Glasflügel 304 CZ-17	composite	
HPH SPOL SRO	Glasflügel 304 S	composite	
M & D FLUGZEUGBAU GMBH	JS-MD 1C	composite	The model has also powered variants.
PILATUS AIRCRAFT LTD.	B4-PC11	metal	



GROUP 4 SAILPLANES			
TC Holder	Model	Type of structure	Note
PILATUS AIRCRAFT LTD.	B4-PC11A	metal	
PILATUS AIRCRAFT LTD.	B4-PC11AF	metal	
SCHEIBE AIRCRAFT GMBH	Bergfalke II	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Bergfalke II-55	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Bergfalke III	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Bergfalke IV	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	L-Spatz	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	L-Spatz 55	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	L-Spatz III	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Mü 13 E "Bergfalke"	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 26 A "Standard"	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 27 A	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 27 B	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 30 A "Club-Spatz"	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 34	composite	
SCHEIBE AIRCRAFT GMBH	SF 34 B	composite	
SCHEIBE AIRCRAFT GMBH	Spatz 55	composite	
SCHEIBE AIRCRAFT GMBH	Spatz A	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Spatz B	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Specht	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Sperber	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Zugvogel I	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Zugvogel II	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Zugvogel III	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Zugvogel III A	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Zugvogel III B	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Zugvogel IV	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	Zugvogel IV A	metal-tube, wood	
SCHEMPP HIRTH FLUGZEUGBAU	Arcus	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Cirrus	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Cirrus-VTC	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus a	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus b	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus CS	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus-2a	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus-2b	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus-2c	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Duo Discus	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Duo Discus C	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Janus	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Janus B	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Janus C	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Janus Ce	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Mini Nimbus B	composite	



GROUP 4 SAILPLANES			
TC Holder	Model	Type of structure	Note
SCHEMPP HIRTH FLUGZEUGBAU	Mini Nimbus C	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Mini Nimbus HS 7	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-2	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-2B	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-2C	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-3	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-3/24,5	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-3D	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-4	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-4D	composite	
SCHEMPP HIRTH FLUGZEUGBAU	S	wood	
SCHEMPP HIRTH FLUGZEUGBAU	SH	wood	
SCHEMPP HIRTH FLUGZEUGBAU	SH 1	wood	
SCHEMPP HIRTH FLUGZEUGBAU	SHK 1	wood	
SCHEMPP HIRTH FLUGZEUGBAU	Standard Cirrus	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Standard Cirrus B	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Standard Cirrus CS 11-75L	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Standard Cirrus G	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus a	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus a/16.6	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus b	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus b/16.6	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus c	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus-2a	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus-2b	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus-2c	composite	
SCHEMPP HIRTH VÝROBA LETADEL	VSO 10	composite	
SCHEMPP HIRTH VÝROBA LETADEL	VSO 10 C	composite	
SN CENTRAIR	101	composite	
SN CENTRAIR	101 A	composite	
SN CENTRAIR	101 AP	composite	
SN CENTRAIR	101 B	composite	
SN CENTRAIR	101 BC	composite	
SN CENTRAIR	101 D	composite 	
SN CENTRAIR	101 P	composite 	
SN CENTRAIR	201 A	composite	
SN CENTRAIR	201 B	composite	
SN CENTRAIR	201 B1	composite	
SN CENTRAIR	ASW 20 F	composite	
SN CENTRAIR	ASW 20 FL	composite	
SN CENTRAIR	SNC 34C	composite	
SPORTINE AVIACIJA IR KO	LAK-12	composite	
SPORTINE AVIACIJA IR KO	LAK-17A	composite	
SPORTINE AVIACIJA IR KO	LAK-19	composite	



GROUP 4 SAILPLANES			
TC Holder	Model	Type of structure	Note
WITHOUT TC HOLDER - ORPHANED	905 A	wood	
WITHOUT TC HOLDER - ORPHANED	905 S	wood	
WITHOUT TC HOLDER - ORPHANED	905 SA	wood	
WITHOUT TC HOLDER - ORPHANED	Avia Strotel AC-4c	composite	
WITHOUT TC HOLDER - ORPHANED	Carman-Morelli M200	wood	
WITHOUT TC HOLDER - ORPHANED	Diamant 16.5	composite	
WITHOUT TC HOLDER - ORPHANED	Diamant 18	composite	
WITHOUT TC HOLDER - ORPHANED	Elfe S3	metal, wood, composite	
WITHOUT TC HOLDER - ORPHANED	Elfe S4	metal, wood, composite	
WITHOUT TC HOLDER - ORPHANED	Elfe S4A	metal, wood, composite	
WITHOUT TC HOLDER - ORPHANED	Glasflügel 304 B	composite	
WITHOUT TC HOLDER - ORPHANED	H 101 "Salto"	composite	
WITHOUT TC HOLDER - ORPHANED	HBV-Diamant	composite	
WITHOUT TC HOLDER - ORPHANED	JP 15-36 A	composite	
WITHOUT TC HOLDER - ORPHANED	JP 15-36 AR	composite	
WITHOUT TC HOLDER - ORPHANED	Kenilworth Me7	composite	
WITHOUT TC HOLDER - ORPHANED	PIK 20	composite	
WITHOUT TC HOLDER - ORPHANED	PIK 20B	composite	
WITHOUT TC HOLDER - ORPHANED	PIK-20D	composite	
WITHOUT TC HOLDER - ORPHANED	Siren "Edelweiss" C30S	wood	
WITHOUT TC HOLDER - ORPHANED	Slingsby T51 Dart 15	wood	
WITHOUT TC HOLDER - ORPHANED	Slingsby T51 Dart 17	wood	
WITHOUT TC HOLDER - ORPHANED	Slingsby T51 Dart 17R	wood	
WITHOUT TC HOLDER - ORPHANED	Slingsby T53B	composite	
WITHOUT TC HOLDER - ORPHANED	Slingsby T59D	composite	
WITHOUT TC HOLDER - ORPHANED	Standard Cirrus 75 VTC	composite	
WITHOUT TC HOLDER - ORPHANED	Standard Cirrus G/81	composite	
WITHOUT TC HOLDER - ORPHANED	T.65 "Vega"	composite	
WITHOUT TC HOLDER - ORPHANED	WA 26 CM	wood, composite	
WITHOUT TC HOLDER - ORPHANED	WA 26 P	wood, composite	
WITHOUT TC HOLDER - ORPHANED	WA 28	composite	
WITHOUT TC HOLDER - ORPHANED	WA 28 E	composite	
WITHOUT TC HOLDER - ORPHANED	WA 28 EF	composite	
WITHOUT TC HOLDER - ORPHANED	WA 28 F	composite	
ZAKLAD SZYBOWCOWY JEZOW	PW-5 "Smyk"	composite	
ZAKLAD SZYBOWCOWY JEZOW	PW-6U	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-22B "Mucha- Standard"	wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-22C "Mucha- Standard"	wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-24 C "Foka"	wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-24-4A	wood	

GROUP 4 SAILPLANES			
TC Holder	Model	Type of structure	Note
ZAKLAD SZYBOWCOWY JEZOW	SZD-25A Lis	metal-tube, wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-30 "Pirat"	wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-30C "Pirat"	wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-32A "Foka 5"	wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-36A "Cobra 15"	wood, composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-38A "Jantar 1"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-41A "Jantar Standard"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-42 "Jantar 2"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-42-1 "Jantar 2"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-42-2 "Jantar 2B"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-48 "Jantar Standard 2"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-48-1 "Jantar Standard 2"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-48-1M "Jantar Standard 2M"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-48-3M "Brawo"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-48-3M1 "Brawo"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-48M "Jantar Standard 2M"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-52-3 "Krokus S"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-52-4 "Krokus C"	composite	
ZAKLAD SZYBOWCOWY JEZOW	SZD-9 bis 1 D "Bocian"	wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-9 bis 1 E "Bocian"	wood	
ZAKLADY LOTNICZE	MDM-1 "Fox"	composite	
ZAKLADY LOTNICZE	MDM-1P "Fox-P"	composite	
ZAKLADY LOTNICZE	Swift S-1	composite	



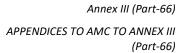
## **GROUP 4 POWERED SAILPLANES**

	GROUP 4 POWERED SAILPLANES	
TC Holder	Model	Type of structure Note
AEROCLUBUL ROMANIEI	IS-28M2	metal
AEROCLUBUL ROMANIEI	IS-28M2/80HP	metal
AEROCLUBUL ROMANIEI	IS-28M2/G	metal
AEROCLUBUL ROMANIEI	IS-28M2/GR	metal
AEROMOT - INDUSTRIA MECANICO	AMT-100	composite
AEROMOT - INDUSTRIA MECANICO	AMT-200	composite
AEROMOT - INDUSTRIA MECANICO	AMT-200S	composite
ALEXANDER SCHLEICHER	ASG 32 EI	composite
ALEXANDER SCHLEICHER	ASH 25 E	composite
ALEXANDER SCHLEICHER	ASH 25 M	composite
ALEXANDER SCHLEICHER	ASH 26 E	composite
ALEXANDER SCHLEICHER	ASH 26 E	composite
ALEXANDER SCHLEICHER	ASH 30 Mi	composite
ALEXANDER SCHLEICHER	ASH 31 Mi	composite
ALEXANDER SCHLEICHER	ASK 14	metal-tube, wood
ALEXANDER SCHLEICHER	ASK 16	metal-tube, wood
ALEXANDER SCHLEICHER	ASK 16 B	metal-tube, wood
ALEXANDER SCHLEICHER	ASK 21 Mi	composite
ALEXANDER SCHLEICHER	ASW 22 BLE	composite
ALEXANDER SCHLEICHER	ASW 22 BLE 50R	composite
ALEXANDER SCHLEICHER	ASW 22 M	composite
ALEXANDER SCHLEICHER	ASW 24 E	composite
ALEXANDER SCHLEICHER	ASW 27-18 E	composite
ALEXANDER SCHLEICHER	ASW 28-18 E	composite
AMS-FLIGHT D.O.O.	CARAT A	composite
BINDER MOTORENBAU GMBH	ASH 25 EB	composite
BINDER MOTORENBAU GMBH	ASH 25 EB 28	composite
BINDER MOTORENBAU GMBH	EB 28	composite
BINDER MOTORENBAU GMBH	EB 28 Edition	composite
BINDER MOTORENBAU GMBH	EB 29	composite
BINDER MOTORENBAU GMBH	EB 29D	composite
BINDER MOTORENBAU GMBH	EB29DR	composite
BINDER MOTORENBAU GMBH	EB29R	composite
DG FLUGZEUGBAU GMBH	DG-1000M	composite
DG FLUGZEUGBAU GMBH	DG-1000T	composite
DG FLUGZEUGBAU GMBH	DG-400	composite
DG FLUGZEUGBAU GMBH	DG-500 M	composite
DG FLUGZEUGBAU GMBH	DG-500 MB	composite
DG FLUGZEUGBAU GMBH	DG-600/18 M	composite
DG FLUGZEUGBAU GMBH	DG-600M	composite
DG FLUGZEUGBAU GMBH	DG-800 A	composite
DG FLUGZEUGBAU GMBH	DG-800 B	composite

	GROUP 4 POWERED SAILPLANES		
TC Holder	Model	Type of structure	Note
DG FLUGZEUGBAU GMBH	DG-800 LA	composite	
DG FLUGZEUGBAU GMBH	DG-808 C	composite	
DG FLUGZEUGBAU GMBH	LS10-st	composite	
DG FLUGZEUGBAU GMBH	LS8-t	composite	
DG FLUGZEUGBAU GMBH	LS9	composite	
DIAMOND AIRCRAFT INDUSTRIES	H 36 "Dimona"	composite	
DIAMOND AIRCRAFT INDUSTRIES	HK 36 "Super Dimona"	composite	
DIAMOND AIRCRAFT INDUSTRIES	HK 36 R "Super Dimona"	composite	
DIAMOND AIRCRAFT INDUSTRIES	HK 36 TC	composite	
DIAMOND AIRCRAFT INDUSTRIES	HK 36 TS	composite	
DIAMOND AIRCRAFT INDUSTRIES	HK 36 TTC	composite	
DIAMOND AIRCRAFT INDUSTRIES	HK 36 TTC-ECO	composite	
DIAMOND AIRCRAFT INDUSTRIES	HK 36-TTS	composite	
E.I.S. HOLDING GmbH	Fournier RF 3	wood	
E.I.S. HOLDING GmbH	Fournier RF 4	wood	
E.I.S. HOLDING GmbH	Fournier RF 4 D	wood	
E.I.S. HOLDING GmbH	Fournier RF 5	wood	
E.I.S. HOLDING GmbH	Fournier RF 5 B "Sperber"	wood	
E.I.S. HOLDING GmbH	SFS 31 "Milan"	wood	
EICHELSDOERFER GMBH	KIWI	composite	
EVEKTOR, SPOL. S R.O.	L 13 SDL Vivat	metal	
EVEKTOR, SPOL. S R.O.	L 13 SDM Vivat	metal	
EVEKTOR, SPOL. S R.O.	L 13 SE Vivat	metal	
EVEKTOR, SPOL. S R.O.	L 13 SEH Vivat	metal	
EVEKTOR, SPOL. S R.O.	L 13 SL Vivat	metal	
EVEKTOR, SPOL. S R.O.	L 13 SW Vivat	metal	
FIBERGLAS TECHNIK R. LINDNER	G 103 C TWIN III SL	composite	
FISCHER UND ENTWICKLUNGEN	ASTIR CS 77 TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASTIR CS Jeans TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASTIR CS TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASW 20 TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASW 20B TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASW 20BL TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASW 20C TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASW 20CL TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASW 20L TOP	composite	
FISCHER UND ENTWICKLUNGEN	ASW 24 TOP	composite	
FISCHER UND ENTWICKLUNGEN	Standard Cirrus B TOP	composite	
FISCHER UND ENTWICKLUNGEN	Standard Cirrus TOP	composite	
FOURNIER, RENE	RF 9	wood	
GANTENBRINK, BRUNO	Eta	composite	
GROB AIRCRAFT AG	G109	composite	
GROB AIRCRAFT AG	G109 B	composite	
HB-FLUGTECHNIK GMBH	HB 21	metal-tube, wood	

	GROUP 4 POWERED SAILPLANES		
TC Holder	Model	Type of structure Note	
HB-FLUGTECHNIK GMBH	HB 21 V1	metal-tube, wood	
HB-FLUGTECHNIK GMBH	HB 21 V2	metal-tube, wood	
HB-FLUGTECHNIK GMBH	HB 21/2400	metal-tube, wood	
HB-FLUGTECHNIK GMBH	HB 21/2400 B	metal-tube, wood	
HB-FLUGTECHNIK GMBH	HB 23/2400	metal-tube, wood	
HB-FLUGTECHNIK GMBH	HB 23/2400 Scanliner	metal-tube, wood	
HB-FLUGTECHNIK GMBH	HB 23/2400 SP	metal-tube, wood	
HB-FLUGTECHNIK GMBH	HB 23/2400 V2	metal-tube, wood	
HPH SPOL SRO	Glasflügel 304 eS	composite	
HPH SPOL SRO	Glasflügel 304 MS	composite	
KORFF LUFTFAHRT	Taifun 17 E	composite	
KORFF LUFTFAHRT	Taifun 17 E II	composite	
LANGE AVIATION GMBH	E1 Antares	composite	
M & D FLUGZEUGBAU GMBH	AVO 68 - R "Samburo"	metal-tube, wood	
M & D FLUGZEUGBAU GMBH	AVO 68 - R 100 "Samburo"	metal-tube, wood	
M & D FLUGZEUGBAU GMBH	AVO 68 - R 115 "Samburo"	metal-tube, wood	
M & D FLUGZEUGBAU GMBH	AVO 68 - s "Samburo"	metal-tube, wood	
M & D FLUGZEUGBAU GMBH	AVO 68 - v "Samburo"	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 25 A	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 25 B	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 25 C	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 25 D	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 25 E	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 25 K	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 28 A "Tandem-Falke"	metal-tube, wood	
SCHEIBE AIRCRAFT GMBH	SF 36 A	composite	
SCHEIBE AIRCRAFT GMBH	SF 36 R	composite	
SCHEMPP HIRTH FLUGZEUGBAU	ARCUS M	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Arcus T	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus bM	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus bT	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus-2cFES	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus-2cT	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Discus-2T	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Duo Discus T	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Janus CM	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Janus CT	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-2M	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-3DM	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-3DT	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-3T	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-4DM	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-4DT	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-4M	composite	

GROUP 4 POWERED SAILPLANES			
TC Holder	Model	Type of structure	Note
SCHEMPP HIRTH FLUGZEUGBAU	Nimbus-4T	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus bT	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus cM	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus cT	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus-2cM	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus-2cT	composite	
SCHEMPP HIRTH FLUGZEUGBAU	Ventus-3T	composite	
SPORTINE AVIACIJA IR KO	LAK-17AT	composite	
SPORTINE AVIACIJA IR KO	LAK-17B FES	composite	
SPORTINE AVIACIJA IR KO	LAK-19T	composite	
STEMME AG	\$6	composite	
STEMME AG	S6-RT	composite	
STEMME AG	Stemme S10	composite	
STEMME AG	Stemme S10-V	composite	
STEMME AG	Stemme S10-VT	composite	
STEMME AG	Stemme S12	composite	
TECHNOFLUG LEICHTFLUGZEUGBAU	CARAT	composite	
TECHNOFLUG LEICHTFLUGZEUGBAU	Piccolo	composite	
TECHNOFLUG LEICHTFLUGZEUGBAU	Piccolo B	composite	
WITHOUT TC HOLDER - ORPHANED	PIK 20 E II F	composite	
WITHOUT TC HOLDER - ORPHANED	PIK 30	composite	
WITHOUT TC HOLDER - ORPHANED	PIK-20 E	composite	
WITHOUT TC HOLDER - ORPHANED	PIK-20 E II	composite	
WITHOUT TC HOLDER - ORPHANED	RF-5 AJ-1 Serrania	wood	
ZAKLAD SZYBOWCOWY JEZOW	SZD-45A "Ogar"	composite	



# **GROUP 4 GAS BALLOONS**

	GROUP 4 GAS BALLOONS	
TC Holder	Model	Note
BALLONBAU WÖRNER GMBH	K-STU/1000	ELA1
BALLONBAU WÖRNER GMBH	K-STU/1260	ELA2
BALLONBAU WÖRNER GMBH	K-STU/1680	ELA2
BALLONBAU WÖRNER GMBH	K-STU/300	ELA1
BALLONBAU WÖRNER GMBH	K-STU/630	ELA1
BALLONBAU WÖRNER GMBH	K-STU/780	ELA1
BALLONBAU WÖRNER GMBH	K-STU/945	ELA1
BALLONBAU WÖRNER GMBH	NL-STU/1000	ELA1
BALLONBAU WÖRNER GMBH	NL-STU/280	ELA1
BALLONBAU WÖRNER GMBH	NL-STU/380	ELA1
BALLONBAU WÖRNER GMBH	NL-STU/510	ELA1
BALLONBAU WÖRNER GMBH	NL-STU/640	ELA1
BALLONBAU WÖRNER GMBH	NL-STU/840	ELA1
CAMERON BALLOONS LIMITED	GB 1000	ELA1
LINDSTRAND TECHNOLOGIES LTD.	105G	ELA1
LINDSTRAND TECHNOLOGIES LTD.	14M	ELA1
LINDSTRAND TECHNOLOGIES LTD.	203M	ELA2
LINDSTRAND TECHNOLOGIES LTD.	77M	ELA2
WITHOUT TC HOLDER — ORPHANED	K-1050/3-Ri	ELA1
WITHOUT TC HOLDER — ORPHANED	K-1260/3-Ri	ELA2
WITHOUT TC HOLDER — ORPHANED	K-1680/4-Ri	ELA2
WITHOUT TC HOLDER — ORPHANED	K-630/1-Ri	ELA1
WITHOUT TC HOLDER — ORPHANED	K-780/2-Ri	ELA1
WITHOUT TC HOLDER — ORPHANED	K-945/2-Ri	ELA1
AERONAUTICAL CENTER AUGUR	AL-30	ELA2 (Tethered gas balloon)
AEROPHILE SAS	AEROPHILE 5500	ELA2 (Tethered gas balloon)
BALLONBAU WÖRNER GMBH	FK-5500/STU	ELA2 (Tethered gas balloon)
BALLONBAU WÖRNER GMBH	FKP-STU/280	ELA1 (Tethered gas balloon)
BALLONBAU WÖRNER GMBH	FKP-STU/380	ELA2 (Tethered gas balloon)
BALLONBAU WÖRNER GMBH	FKP-STU/510	ELA2 (Tethered gas balloon)
BALLONBAU WÖRNER GMBH	FK-STU/280	ELA1 (Tethered gas balloon)
LINDSTRAND TECHNOLOGIES LTD.	203T	ELA2 (Tethered gas balloon)
LINDSTRAND TECHNOLOGIES LTD.	9T	ELA1 (Tethered gas balloon)
LINDSTRAND TECHNOLOGIES LTD.	LBL 203P	ELA2 (Tethered gas balloon)



#### **GROUP 4 HOT-AIR BALLOONS**

GROUP 4 HOT-AIR BALLOONS		
TC Holder	Model	Note
AEROSTAR INTERNATIONAL	CELL	ELA2
AEROSTAR INTERNATIONAL	RX-6	ELA2
AEROSTAR INTERNATIONAL	RX-7	ELA2
AEROSTAR INTERNATIONAL	RX-8	ELA2
AEROSTAR INTERNATIONAL	RX-9	ELA2
AEROSTAR INTERNATIONAL	RXS-8	ELA2
AEROSTAR INTERNATIONAL	S-49A	ELA2
AEROSTAR INTERNATIONAL	S-52A	ELA2
AEROSTAR INTERNATIONAL	S-53A	ELA2
AEROSTAR INTERNATIONAL	S-55A	ELA2
AEROSTAR INTERNATIONAL	S-57A	ELA2
AEROSTAR INTERNATIONAL	S-57S	ELA2
AEROSTAR INTERNATIONAL	S-60A	ELA2
AEROSTAR INTERNATIONAL	S-66A	ELA2
AEROSTAR INTERNATIONAL	S-71A	ELA2
AEROSTAR INTERNATIONAL	S-77A	ELA2
AEROSTAR INTERNATIONAL	W100LB	ELA2
BALLONS CHAIZE	CS 1600 F12	ELA1
BALLONS CHAIZE	CS 1600 F24	ELA1
BALLONS CHAIZE	CS 1800 F12	ELA1
BALLONS CHAIZE	CS 1800 F24	ELA1
BALLONS CHAIZE	CS 2000 F12	ELA1
BALLONS CHAIZE	CS 2000 F24	ELA1
BALLONS CHAIZE	CS 2200 F12	ELA1
BALLONS CHAIZE	CS 2200 F16	ELA1
BALLONS CHAIZE	CS 2200 F24	ELA1
BALLONS CHAIZE	CS 2200 F32	ELA1
BALLONS CHAIZE	CS 3000 F16	ELA1
BALLONS CHAIZE	CS 3000 F32	ELA1
BALLONS CHAIZE	CS 4000 F16	ELA2
BALLONS CHAIZE	CS 4000 F32	ELA2
BALLONS CHAIZE	DC 1800 F16	ELA1
BALLONS CHAIZE	DC 2000 F16	ELA1
BALLONS CHAIZE	DC 2200 F16	ELA1
BALLONS CHAIZE	DC-Type	ELA1
BALLONS CHAIZE	JZ 18 F12	ELA1
BALLONS CHAIZE	JZ 18 F24	ELA1
BALLONS CHAIZE	JZ 20 F12	ELA1
BALLONS CHAIZE	JZ 20 F24	ELA1
BALLONS CHAIZE	JZ 22 F12	ELA1
BALLONS CHAIZE	JZ 22 F24	ELA1
BALLONS CHAIZE	JZ 25 F12	ELA1



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
BALLONS CHAIZE	JZ 25 F16	ELA1
BALLONS CHAIZE	JZ 25 F24	ELA1
BALLONS CHAIZE	JZ 25 F32	ELA1
BALLONS CHAIZE	JZ 30 F16	ELA1
BALLONS CHAIZE	JZ 30 F32	ELA1
BALLONS CHAIZE	JZ 35 F16	ELA2
BALLONS CHAIZE	JZ 35 F32	ELA2
BALLONS CHAIZE	JZ 40 F16	ELA2
BALLONS CHAIZE	JZ 40 F32	ELA2
BALLONS CHAIZE	JZX 18 F12	ELA1
BALLONS CHAIZE	JZX 18 F24	ELA1
BALLONS CHAIZE	JZX 20 F12	ELA1
BALLONS CHAIZE	JZX 20 F24	ELA1
BALLONS CHAIZE	JZX 22 F12	ELA1
BALLONS CHAIZE	JZX 22 F24	ELA1
BALLONS CHAIZE	JZX 25 F12	ELA1
BALLONS CHAIZE	JZX 25 F16	ELA1
BALLONS CHAIZE	JZX 25 F24	ELA1
BALLONS CHAIZE	JZX 25 F32	ELA1
BALLONS CHAIZE	JZX 30 F16	ELA1
BALLONS CHAIZE	JZX 30 F32	ELA1
BALLONS CHAIZE	JZX 35 F16	ELA2
BALLONS CHAIZE	JZX 35 F32	ELA2
BALLONS CHAIZE	JZX 40 F16	ELA2
BALLONS CHAIZE	JZX 40 F32	ELA2
BALLONS LIBERT S.P.R.L.	L12-2600	ELA1
BALLONS LIBERT S.P.R.L.	L12-3000	ELA1
BALLONS LIBERT S.P.R.L.	L1800	ELA1
BALLONS LIBERT S.P.R.L.	L2200	ELA1
BALLONS LIBERT S.P.R.L.	L2600	ELA1
BALLONS LIBERT S.P.R.L.	L3000	ELA1
BALLONS LIBERT S.P.R.L.	L3000+	ELA1
BALLONS LIBERT S.P.R.L.	L3400	ELA1
BALLONS LIBERT S.P.R.L.	L4000+	ELA2
BALLONS LIBERT S.P.R.L.	L4500	ELA2
BALLONS LIBERT S.P.R.L.	L5000	ELA2
BALLONS LIBERT S.P.R.L.	LC Replica	ELA1
BALLONS LIBERT S.P.R.L.	LC2000	ELA1
BALLONSERVICE UND TECHNIK	Schön-Mars	ELA2
BALLONSERVICE UND TECHNIK	Schön-Neptun	ELA2
BALLONSERVICE UND TECHNIK	Schön-Saturn	ELA2
BALLONSERVICE UND TECHNIK	Schön-Venus	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	AB 2	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	AB 2a	ELA1



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
BALÓNY KUBÍČEK SPOL. S.R.O.	AB 8	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	AB 8 N30	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	AB N22	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	AB N30	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	AB O22	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BALL	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB D-Type	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB ED-Type	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB E-Type	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB GP-Type	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB N-Type	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB O-Type	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB P-Type	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB Series	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB XR-Type	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB Z-Type	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB100Z	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB12	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB120P	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB142P	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB16	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB17GP	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB17XR	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB20	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB20E	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB20GP	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB20XR	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB22	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB22E	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB22N	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB22XR	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB22Z	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB26	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB26E	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB26N	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB26XR	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB26Z	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB30N	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB30XR	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB30Z	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB34Z	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BB37N	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB37Z	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB40Z	ELA2



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
BALÓNY KUBÍČEK SPOL. S.R.O.	BB42Z	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB45N	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB45Z	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB51Z	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB60N	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB60Z	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB70Z	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB85Z	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BB9	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BEAR	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	BEMB	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	BURGER KING	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	CUBE	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	DHL	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	FISH	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	FORKLIFT	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	GNOME	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	HEART	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	ICE	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	JAG	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	JAGER	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	JAGER 28	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	JUPOL	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	KATZENKOPF	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	KRIGL	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	MONTGOLFIERE	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	PHARE	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	RABBIT	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	REPLIKA	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	SANTA	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	SHIP	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	SILO	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	SKYBALLS	ELA1
BALÓNY KUBÍČEK SPOL. S.R.O.	VOSTOK	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	WERA	ELA2
BALÓNY KUBÍČEK SPOL. S.R.O.	WURST	ELA2
CAMERON BALLOONS LIMITED	105-24	ELA1
CAMERON BALLOONS LIMITED	105A	ELA1
CAMERON BALLOONS LIMITED	120-24	ELA1
CAMERON BALLOONS LIMITED	120A	ELA1
CAMERON BALLOONS LIMITED	140-24	ELA2
CAMERON BALLOONS LIMITED	140A	ELA2
CAMERON BALLOONS LIMITED	150A	ELA2
CAMERON BALLOONS LIMITED	160-24	ELA2



	GROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	160A	ELA2
CAMERON BALLOONS LIMITED	17A	ELA1
CAMERON BALLOONS LIMITED	180-24	ELA2
CAMERON BALLOONS LIMITED	180A	ELA2
CAMERON BALLOONS LIMITED	200-24	ELA2
CAMERON BALLOONS LIMITED	210A	ELA2
CAMERON BALLOONS LIMITED	21A	ELA1
CAMERON BALLOONS LIMITED	220-24	ELA2
CAMERON BALLOONS LIMITED	240-24	ELA2
CAMERON BALLOONS LIMITED	240A	ELA2
CAMERON BALLOONS LIMITED	25A	ELA1
CAMERON BALLOONS LIMITED	260-24	ELA2
CAMERON BALLOONS LIMITED	260A	ELA2
CAMERON BALLOONS LIMITED	26-16	ELA1
CAMERON BALLOONS LIMITED	300A	ELA2
CAMERON BALLOONS LIMITED	31-24	ELA1
CAMERON BALLOONS LIMITED	315A	ELA2
CAMERON BALLOONS LIMITED	317-24	ELA2
CAMERON BALLOONS LIMITED	31A	ELA1
CAMERON BALLOONS LIMITED	4 Pack-90 (Four Pack-1)	ELA1
CAMERON BALLOONS LIMITED	400-28	ELA2
CAMERON BALLOONS LIMITED	400A	ELA2
CAMERON BALLOONS LIMITED	42A	ELA1
CAMERON BALLOONS LIMITED	500-28	ELA2
CAMERON BALLOONS LIMITED	56-24	ELA1
CAMERON BALLOONS LIMITED	56A	ELA1
CAMERON BALLOONS LIMITED	56B	ELA1
CAMERON BALLOONS LIMITED	65-24	ELA1
CAMERON BALLOONS LIMITED	69A	ELA1
CAMERON BALLOONS LIMITED	70-16	ELA1
CAMERON BALLOONS LIMITED	77-24	ELA1
CAMERON BALLOONS LIMITED	77A	ELA1
CAMERON BALLOONS LIMITED	77B	ELA1
CAMERON BALLOONS LIMITED	80-16	ELA1
CAMERON BALLOONS LIMITED	90-24	ELA1
CAMERON BALLOONS LIMITED	90A	ELA1
CAMERON BALLOONS LIMITED	90B	ELA1
CAMERON BALLOONS LIMITED	A Type Cloudhopper Series	Ref.: Models LBL 21A to LBL 35A
CAMERON BALLOONS LIMITED	A Type Series	Ref.: Models LBL 42A to LBL 500A
CAMERON BALLOONS LIMITED	A-105	ELA1
CAMERON BALLOONS LIMITED	A-120	ELA1
CAMERON BALLOONS LIMITED	A-140	ELA2



GROUP 4 HOT-AIR BALLOONS		
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	A-160	ELA2
CAMERON BALLOONS LIMITED	A-180	ELA2
CAMERON BALLOONS LIMITED	A-200	ELA2
CAMERON BALLOONS LIMITED	A-210	ELA2
CAMERON BALLOONS LIMITED	A-250	ELA2
CAMERON BALLOONS LIMITED	A-275	ELA2
CAMERON BALLOONS LIMITED	A-300	ELA2
CAMERON BALLOONS LIMITED	A-315	ELA2
CAMERON BALLOONS LIMITED	A-340	ELA2
CAMERON BALLOONS LIMITED	A-340HL	ELA2
CAMERON BALLOONS LIMITED	A-375	ELA2
CAMERON BALLOONS LIMITED	A-400	ELA2
CAMERON BALLOONS LIMITED	A-415	ELA2
CAMERON BALLOONS LIMITED	A-425LW	ELA2
CAMERON BALLOONS LIMITED	A-450LW	ELA2
CAMERON BALLOONS LIMITED	A-500LW	ELA2
CAMERON BALLOONS LIMITED	A-530	ELA2
CAMERON BALLOONS LIMITED	A-530LW	ELA2
CAMERON BALLOONS LIMITED	AML-105	ELA1
CAMERON BALLOONS LIMITED	Andrelon Bottle (Bottle-8)	ELA1
CAMERON BALLOONS LIMITED	Apple-120	ELA1
CAMERON BALLOONS LIMITED	Apple-90	ELA1
CAMERON BALLOONS LIMITED	AX10-150 S2	ELA2
CAMERON BALLOONS LIMITED	AX10-160 S1	ELA2
CAMERON BALLOONS LIMITED	AX10-160 S2	ELA2
CAMERON BALLOONS LIMITED	AX10-160Z	ELA2
CAMERON BALLOONS LIMITED	AX10-180 S1	ELA2
CAMERON BALLOONS LIMITED	AX10-180 S2	ELA2
CAMERON BALLOONS LIMITED	AX10-210 S2	ELA2
CAMERON BALLOONS LIMITED	AX11-225 S2	ELA2
CAMERON BALLOONS LIMITED	AX11-250 S2	ELA2
CAMERON BALLOONS LIMITED	AX4-31Z	ELA1
CAMERON BALLOONS LIMITED	AX5-42 S1	ELA1
CAMERON BALLOONS LIMITED	AX5-42Bolt	ELA1
CAMERON BALLOONS LIMITED	AX56-Series 1/SP1	ELA1
CAMERON BALLOONS LIMITED	AX6-56 S1	ELA1
CAMERON BALLOONS LIMITED	AX6-56A	ELA1
CAMERON BALLOONS LIMITED	AX6-56Bolt	ELA1
CAMERON BALLOONS LIMITED	AX6-56Z	ELA1
CAMERON BALLOONS LIMITED	AX7-65 S1	ELA1
CAMERON BALLOONS LIMITED	AX7-65Bolt	ELA1
CAMERON BALLOONS LIMITED	AX7-65Z	ELA1
CAMERON BALLOONS LIMITED	AX7-77 S1	ELA1
CAMERON BALLOONS LIMITED	AX7-77A	ELA1



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	AX7-77Bolt	ELA1
CAMERON BALLOONS LIMITED	AX7-77Z	ELA1
CAMERON BALLOONS LIMITED	AX8-105 S1	ELA1
CAMERON BALLOONS LIMITED	AX8-105 S2	ELA1
CAMERON BALLOONS LIMITED	AX8-105Z	ELA1
CAMERON BALLOONS LIMITED	AX8-84 S1	ELA1
CAMERON BALLOONS LIMITED	AX8-90 S1	ELA1
CAMERON BALLOONS LIMITED	AX8-90 S2	ELA1
CAMERON BALLOONS LIMITED	AX9-120 S1	ELA1
CAMERON BALLOONS LIMITED	AX9-120 S2	ELA1
CAMERON BALLOONS LIMITED	AX9-140 S2	ELA2
CAMERON BALLOONS LIMITED	B Type Series	Ref.: Models LBL 56B to
	"	LBL 105B
CAMERON BALLOONS LIMITED	Ball-70	ELA1
CAMERON BALLOONS LIMITED	Ball-77 (Ball-4)	ELA1
CAMERON BALLOONS LIMITED	Baltika-77 (Cylinder-14)	ELA1
CAMERON BALLOONS LIMITED	Battery LR2 (Cylinder-6)	ELA1
CAMERON BALLOONS LIMITED	Bear-72	ELA1
CAMERON BALLOONS LIMITED	Bearskin	ELA1
CAMERON BALLOONS LIMITED	Beer Crate-120 (Box-20)	ELA1
CAMERON BALLOONS LIMITED	Bertie Bassett-90 (St. Fig.10)	ELA1
CAMERON BALLOONS LIMITED	Bibendum -110 (St. Fig12)	ELA1
CAMERON BALLOONS LIMITED	Bic Chic-90 (Figure-6)	ELA1
CAMERON BALLOONS LIMITED	Bottle-100 (Bottle-2)	ELA1
CAMERON BALLOONS LIMITED	Bottle-77 (Bottle-6)	ELA1
CAMERON BALLOONS LIMITED	Bowler-90 (Hat-1)	ELA1
CAMERON BALLOONS LIMITED	Bradford/Bingley-90 (Box-9)	ELA1
CAMERON BALLOONS LIMITED	Brandenburger Tor (Box-3)	ELA1
CAMERON BALLOONS LIMITED	Britannia Pig-90 (Quadruped-8)	ELA1
CAMERON BALLOONS LIMITED	Buddy-90 (Figure-7)	ELA1
CAMERON BALLOONS LIMITED	Bulb-65 Light (Bulb-1)	ELA1
CAMERON BALLOONS LIMITED	Bull-110 (Quadruped-12)	ELA1
CAMERON BALLOONS LIMITED	Bunch-100	ELA1
CAMERON BALLOONS LIMITED	Bunny-90 (Standing Figure-7)	ELA1
CAMERON BALLOONS LIMITED	Burger King (Burger-1)	ELA1
CAMERON BALLOONS LIMITED	Bus-90	ELA1
CAMERON BALLOONS LIMITED	C Type Series	Ref.: Models LBL 400C to 600C
CAMERON BALLOONS LIMITED	C-100	ELA1
CAMERON BALLOONS LIMITED	C-60	ELA1
CAMERON BALLOONS LIMITED	C-70	ELA1
CAMERON BALLOONS LIMITED	C-80	ELA1
CAMERON BALLOONS LIMITED	C-90	ELA1
CAMERON BALLOONS LIMITED	Cabin	ELA1

G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	Calling Card-110 (Box-10)	ELA1
CAMERON BALLOONS LIMITED	CameronBox 105 (Telef.häuschen)	ELA1
CAMERON BALLOONS LIMITED	Can-120 (Cylinder-16)	ELA1
CAMERON BALLOONS LIMITED	Can-60 (Barrel-60)	ELA1
CAMERON BALLOONS LIMITED	Can-77 (Cylinder-10)	ELA1
CAMERON BALLOONS LIMITED	Carrots-80	ELA1
CAMERON BALLOONS LIMITED	Cart (Box-6)	ELA1
CAMERON BALLOONS LIMITED	Chateau-84 (House-1)	ELA1
CAMERON BALLOONS LIMITED	Cheese-82 (Horizontal Cylinder)	ELA1
CAMERON BALLOONS LIMITED	Chicken-105 (Bird-2)	ELA1
CAMERON BALLOONS LIMITED	Cider Bottle-120 (Cylinder- 9)	ELA1
CAMERON BALLOONS LIMITED	Clown Standing (Figure-6)	ELA1
CAMERON BALLOONS LIMITED	Club-90	ELA1
CAMERON BALLOONS LIMITED	Cockerel-130 (Bird-7)	ELA2 (Volume 3 681 m3)
CAMERON BALLOONS LIMITED	Coffee Jug-90 (Jug-1)	ELA1
CAMERON BALLOONS LIMITED	Cola Can-90 (Cylinder-12)	ELA1
CAMERON BALLOONS LIMITED	Colt 'Bullet' Type	Ref.: Models 56B to 77B
CAMERON BALLOONS LIMITED	Colt 56 Satzenbrau Bottle	ELA1
CAMERON BALLOONS LIMITED	Colt A Type	Ref.: Models 17A to 400A
CAMERON BALLOONS LIMITED	Colt Ariel Bottle (Bottle-1)	ELA1
CAMERON BALLOONS LIMITED	Colt Beer Glass	ELA1
CAMERON BALLOONS LIMITED	Colt Beetle-105 (Car-3)	ELA1
CAMERON BALLOONS LIMITED	Colt Bottle-10	ELA1
CAMERON BALLOONS LIMITED	Colt Bottle-11	ELA1
CAMERON BALLOONS LIMITED	Colt Bottle-12	ELA1
CAMERON BALLOONS LIMITED	Colt Bottle-13	ELA1
CAMERON BALLOONS LIMITED	Colt Bottle-14	ELA1
CAMERON BALLOONS LIMITED	Colt Bottle-90 (Bottle-5)	ELA1
CAMERON BALLOONS LIMITED	Colt Can-110 (Cylinder -15)	ELA1
CAMERON BALLOONS LIMITED	Colt Clown (Standing Figure-2)	ELA1
CAMERON BALLOONS LIMITED	Colt Cylinder One	ELA1
CAMERON BALLOONS LIMITED	Colt Film Can (Cylinder-5)	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Book (Box-2)	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Head	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Hut	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Jeans	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Kiwi	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Lager (Bottle 2)	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Mitt	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Open Book (Box-5)	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Pig (Quadruped-6)	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Shuttlecock (Cone-	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Whiskey (Bottle 3)	ELA1
CAMERON BALLOONS LIMITED	Colt Flying Yacht	ELA1



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	Colt Golf Ball-90 (Ball-2)	ELA1
CAMERON BALLOONS LIMITED	Colt Jumbo-2	ELA1
CAMERON BALLOONS LIMITED	Colt Mickey Mouse (Wimi-3)	ELA1
CAMERON BALLOONS LIMITED	Colt Pils Bottle (Bottle-12)	ELA1
CAMERON BALLOONS LIMITED	Colt Santa Claus (St. Fig4)	ELA1
CAMERON BALLOONS LIMITED	Colt World-90	ELA1
CAMERON BALLOONS LIMITED	Condom-105 (Cylinder-18)	ELA1
CAMERON BALLOONS LIMITED	Cooling Tower-80 (Cylinder-2)	ELA1
CAMERON BALLOONS LIMITED	Cork-105	ELA1
CAMERON BALLOONS LIMITED	Cork-116	ELA1
CAMERON BALLOONS LIMITED	Cork-82	ELA1
CAMERON BALLOONS LIMITED	Cow-105 (Quadruped-2)	ELA1
CAMERON BALLOONS LIMITED	Cow-110 (Quadruped-5)	ELA2 (Volume 5 947 m <sup>3</sup> )
CAMERON BALLOONS LIMITED	Cube-105	ELA1
CAMERON BALLOONS LIMITED	Cup-110 (Urn-1)	ELA1
CAMERON BALLOONS LIMITED	Cup-90 (F.A.)	ELA1
CAMERON BALLOONS LIMITED	Dinosaur-80 (Quadruped-1)	ELA1
CAMERON BALLOONS LIMITED	Dodo-105 (Bird 8)	ELA1
CAMERON BALLOONS LIMITED	Doll-105 Standing (Figure-8)	ELA1
CAMERON BALLOONS LIMITED	Doll-90 (Cylinder-3)	ELA1
CAMERON BALLOONS LIMITED	Donald-97 (Head-10)	ELA1
CAMERON BALLOONS LIMITED	Double Cow -110 (Quadruped-10)	ELA1
CAMERON BALLOONS LIMITED	Douglas-110 (Figure-5)	ELA2 (Volume 3 541 m³)
CAMERON BALLOONS LIMITED	Dragon (Quadruped-4)	ELA1
CAMERON BALLOONS LIMITED	Drop-180	ELA2 (Volume 5 098 m³)
CAMERON BALLOONS LIMITED	Drop-95	ELA1
CAMERON BALLOONS LIMITED	Dude-90	ELA1
CAMERON BALLOONS LIMITED	Eagle -110 (Bird-5)	ELA1
CAMERON BALLOONS LIMITED	Eagle-95 (Bird-4)	ELA1
CAMERON BALLOONS LIMITED	EB-90 (Glass-3)	ELA1
CAMERON BALLOONS LIMITED	Egg-120	ELA1
CAMERON BALLOONS LIMITED	Egg-65	ELA1
CAMERON BALLOONS LIMITED	Egg-89	ELA1
CAMERON BALLOONS LIMITED	Elephant-77	ELA1
CAMERON BALLOONS LIMITED	F.R. Ball	ELA1
CAMERON BALLOONS LIMITED	Film Can-90 (Cylinder-7)	ELA1
CAMERON BALLOONS LIMITED	Fire Truck-100	ELA1
CAMERON BALLOONS LIMITED	Fire-90 (Cylinder-11)	ELA1
CAMERON BALLOONS LIMITED	Flame-95	ELA1
CAMERON BALLOONS LIMITED	Flying Beer Glass (Cylinder-4)	ELA1
CAMERON BALLOONS LIMITED	Flying Castle	ELA1
CAMERON BALLOONS LIMITED	Flying Coffee Jar (Cylinder-8)	ELA1
CAMERON BALLOONS LIMITED	Flying Cow-110 (Quadruped-11)	ELA1
CAMERON BALLOONS LIMITED	Flying Ice Cream Cone (Cone-2)	ELA1



6	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	Flying Lager Bottle (Bottle-4)	ELA1
CAMERON BALLOONS LIMITED	Flying Piggy Bank (House-2)	ELA1
CAMERON BALLOONS LIMITED	Flying Windmill	ELA1
CAMERON BALLOONS LIMITED	Football-120 (Sphere-120)	ELA1
CAMERON BALLOONS LIMITED	Fork Lift-105	ELA1
CAMERON BALLOONS LIMITED	Freddo-105 (Standing Figure-13)	ELA1
CAMERON BALLOONS LIMITED	Frog-90 (Quadruped-7)	ELA1
CAMERON BALLOONS LIMITED	Furness 56 Building	ELA1
CAMERON BALLOONS LIMITED	Golf Ball-76 (Ball-1)	ELA1
CAMERON BALLOONS LIMITED	GosserMug90/Bierkrug90	ELA1
CAMERON BALLOONS LIMITED	GP-65	ELA1
CAMERON BALLOONS LIMITED	GP-70	ELA1
CAMERON BALLOONS LIMITED	G-Rail-90 (Standing Figure 16)	ELA1
CAMERON BALLOONS LIMITED	Grand Illusion (Figure-3)	ELA2 (Volume 3 535 m <sup>3</sup> )
CAMERON BALLOONS LIMITED	Graz Box-110 (Box-19)	ELA1
CAMERON BALLOONS LIMITED	Grolsch-105 (Bottle-7)	ELA1
CAMERON BALLOONS LIMITED	H-20	ELA1
CAMERON BALLOONS LIMITED	H-24	ELA1
CAMERON BALLOONS LIMITED	H-34	ELA1
CAMERON BALLOONS LIMITED	Hard Hat-90 (Hat-2)	ELA1
CAMERON BALLOONS LIMITED	Harley-78 (Motor Bike-1)	ELA1
CAMERON BALLOONS LIMITED	Head 2-120	ELA1
CAMERON BALLOONS LIMITED	Head One-105	ELA1
CAMERON BALLOONS LIMITED	Head-90 (Head-15)	ELA1
CAMERON BALLOONS LIMITED	Heart-100	ELA1
CAMERON BALLOONS LIMITED	Heart-120	ELA1
CAMERON BALLOONS LIMITED	Helmet-120 (Head-16)	ELA1
CAMERON BALLOONS LIMITED	Hex Glass-84 (Glass-2)	ELA1
CAMERON BALLOONS LIMITED	Home Special-105 (House-3)	ELA1
CAMERON BALLOONS LIMITED	Horse-90 (Quadruped-3)	ELA1
CAMERON BALLOONS LIMITED	House-60	ELA1
CAMERON BALLOONS LIMITED	Ikea-120 (Heart/Box-120)	ELA1
CAMERON BALLOONS LIMITED	Inverted Balloon-105	ELA1
CAMERON BALLOONS LIMITED	Inverted Balloon-78	ELA1
CAMERON BALLOONS LIMITED	Katalog-82 (Box-4)	ELA1
CAMERON BALLOONS LIMITED	Kindernet Dog-100 (St. Fig14)	ELA1
CAMERON BALLOONS LIMITED	Kookaburra-120 (Bird-6)	ELA1
CAMERON BALLOONS LIMITED	Krush Bottle-106 (Bottle-7)	ELA1
CAMERON BALLOONS LIMITED	L Type Series	Refers to Model LBL 48L
CAMERON BALLOONS LIMITED	LBL 105A	ELA1
CAMERON BALLOONS LIMITED	LBL 105B	ELA1
CAMERON BALLOONS LIMITED	LBL 120A	ELA1
CAMERON BALLOONS LIMITED	LBL 140A	ELA2
CAMERON BALLOONS LIMITED	LBL 150A	ELA2

G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	LBL 160A	ELA2
CAMERON BALLOONS LIMITED	LBL 180A	ELA2
CAMERON BALLOONS LIMITED	LBL 210A	ELA2
CAMERON BALLOONS LIMITED	LBL 210S	ELA2
CAMERON BALLOONS LIMITED	LBL 21A	ELA1
CAMERON BALLOONS LIMITED	LBL 240A	ELA2
CAMERON BALLOONS LIMITED	LBL 25A	ELA1
CAMERON BALLOONS LIMITED	LBL 260A	ELA2
CAMERON BALLOONS LIMITED	LBL 260S	ELA2
CAMERON BALLOONS LIMITED	LBL 310A	ELA2
CAMERON BALLOONS LIMITED	LBL 317A	ELA2
CAMERON BALLOONS LIMITED	LBL 317S	ELA2
CAMERON BALLOONS LIMITED	LBL 31A	ELA1
CAMERON BALLOONS LIMITED	LBL 330A	ELA2
CAMERON BALLOONS LIMITED	LBL 35A	ELA1
CAMERON BALLOONS LIMITED	LBL 360A	ELA2
CAMERON BALLOONS LIMITED	LBL 400A	ELA2
CAMERON BALLOONS LIMITED	LBL 400C	ELA2
CAMERON BALLOONS LIMITED	LBL 425A	ELA2
CAMERON BALLOONS LIMITED	LBL 42A	ELA1
CAMERON BALLOONS LIMITED	LBL 450A	ELA2
CAMERON BALLOONS LIMITED	LBL 48L	ELA1
CAMERON BALLOONS LIMITED	LBL 500A	ELA2
CAMERON BALLOONS LIMITED	LBL 500C	ELA2
CAMERON BALLOONS LIMITED	LBL 56A	ELA1
CAMERON BALLOONS LIMITED	LBL 56B	ELA1
CAMERON BALLOONS LIMITED	LBL 600C	ELA2
CAMERON BALLOONS LIMITED	LBL 60A	ELA1
CAMERON BALLOONS LIMITED	LBL 60X	ELA1
CAMERON BALLOONS LIMITED	LBL 69A	ELA1
CAMERON BALLOONS LIMITED	LBL 69B	ELA1
CAMERON BALLOONS LIMITED	LBL 69X	ELA1
CAMERON BALLOONS LIMITED	LBL 77A	ELA1
CAMERON BALLOONS LIMITED	LBL 77B	ELA1
CAMERON BALLOONS LIMITED	LBL 77X	ELA1
CAMERON BALLOONS LIMITED	LBL 90A	ELA1
CAMERON BALLOONS LIMITED	LBL 90B	ELA1
CAMERON BALLOONS LIMITED	LBL Armchair	ELA1
CAMERON BALLOONS LIMITED	LBL Baby Bel	ELA1
CAMERON BALLOONS LIMITED	LBL Bananas	ELA1
CAMERON BALLOONS LIMITED	LBL Battery	ELA1
CAMERON BALLOONS LIMITED	LBL Bear	ELA1
CAMERON BALLOONS LIMITED	LBL Box	ELA1
CAMERON BALLOONS LIMITED	LBL Bulb	ELA1



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	LBL Cake	ELA1
CAMERON BALLOONS LIMITED	LBL Cornetto	ELA1
CAMERON BALLOONS LIMITED	LBL Dog	ELA1
CAMERON BALLOONS LIMITED	LBL Dreher Bottle	ELA1
CAMERON BALLOONS LIMITED	LBL Drinks Can	ELA1
CAMERON BALLOONS LIMITED	LBL Flowers	ELA1
CAMERON BALLOONS LIMITED	LBL Flying M	ELA1
CAMERON BALLOONS LIMITED	LBL Flying Pig	ELA1
CAMERON BALLOONS LIMITED	LBL Four	ELA1
CAMERON BALLOONS LIMITED	LBL Fruit Bottle	ELA1
CAMERON BALLOONS LIMITED	LBL House	ELA1
CAMERON BALLOONS LIMITED	LBL Ice Cream Cone	ELA1
CAMERON BALLOONS LIMITED	LBL J and B Bottle	ELA1
CAMERON BALLOONS LIMITED	LBL Lion	ELA1
CAMERON BALLOONS LIMITED	LBL Lozenge	ELA1
CAMERON BALLOONS LIMITED	LBL Man	ELA1
CAMERON BALLOONS LIMITED	LBL Motorbike	ELA2 (Volume 4 816 m³)
CAMERON BALLOONS LIMITED	LBL Newspaper	ELA1
CAMERON BALLOONS LIMITED	LBL Octopus	ELA1
CAMERON BALLOONS LIMITED	LBL Oriental Duck	ELA1
CAMERON BALLOONS LIMITED	LBL Pharmacist	ELA1
CAMERON BALLOONS LIMITED	LBL Pink Panther	ELA1
CAMERON BALLOONS LIMITED	LBL Pop Can	ELA1
CAMERON BALLOONS LIMITED	LBL Racing Car	ELA1
CAMERON BALLOONS LIMITED	LBL RR21	ELA1
CAMERON BALLOONS LIMITED	LBL Salami	ELA1
CAMERON BALLOONS LIMITED	LBL Saloon Car	ELA1
CAMERON BALLOONS LIMITED	LBL Stove	ELA1
CAMERON BALLOONS LIMITED	LBL Sun	ELA1
CAMERON BALLOONS LIMITED	LBL Syrup Bottle	ELA1
CAMERON BALLOONS LIMITED	LBL Telewest Sphere	ELA1
CAMERON BALLOONS LIMITED	LBL Triangle	ELA1
CAMERON BALLOONS LIMITED	LBL Tulips	ELA1
CAMERON BALLOONS LIMITED	Light Bulb-110 (Light Bulb-2)	ELA1
CAMERON BALLOONS LIMITED	Lindstrand X Type	Ref.: Models LBL 60X to LBL 77X
CAMERON BALLOONS LIMITED	Lips-90	ELA1
CAMERON BALLOONS LIMITED	Loco-105 (Locomotive-1)	ELA1
CAMERON BALLOONS LIMITED	LTSB-90 (Box-14)	ELA1
CAMERON BALLOONS LIMITED	Macaw-90 (Bird-1)	ELA1
CAMERON BALLOONS LIMITED	Maple Leaf-95	ELA1
CAMERON BALLOONS LIMITED	Mickey-90 (Wimi-1)	ELA1
CAMERON BALLOONS LIMITED	Mikey-90 (Head-13)	ELA1
CAMERON BALLOONS LIMITED	Minion-105 (Cylinder 19)	ELA1



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	Modified Sugar Box-90 (Box-21)	ELA1
CAMERON BALLOONS LIMITED	Monster -110 (Head-12)	ELA1
CAMERON BALLOONS LIMITED	Monster Truck-105	ELA1
CAMERON BALLOONS LIMITED	Mountie-120 (Quadruped-9)	ELA1
CAMERON BALLOONS LIMITED	Mug-90 (Cylinder-13)	ELA1
CAMERON BALLOONS LIMITED	N-100	ELA1
CAMERON BALLOONS LIMITED	N-105	ELA1
CAMERON BALLOONS LIMITED	N-120	ELA1
CAMERON BALLOONS LIMITED	N-120 Fox	ELA1
CAMERON BALLOONS LIMITED	N120MW	ELA1
CAMERON BALLOONS LIMITED	N-120SP (Robijn)	ELA1
CAMERON BALLOONS LIMITED	N-133	ELA2
CAMERON BALLOONS LIMITED	N-145	ELA2
CAMERON BALLOONS LIMITED	N-160	ELA2
CAMERON BALLOONS LIMITED	N-180	ELA2
CAMERON BALLOONS LIMITED	N-210	ELA2
CAMERON BALLOONS LIMITED	N-31	ELA1
CAMERON BALLOONS LIMITED	N-42	ELA1
CAMERON BALLOONS LIMITED	N-56	ELA1
CAMERON BALLOONS LIMITED	N-65	ELA1
CAMERON BALLOONS LIMITED	N-70	ELA1
CAMERON BALLOONS LIMITED	N-77	ELA1
CAMERON BALLOONS LIMITED	N-90	ELA1
CAMERON BALLOONS LIMITED	N-90 Nail	ELA1
CAMERON BALLOONS LIMITED	N-90 Nivea	ELA1
CAMERON BALLOONS LIMITED	Newspaper-90 (Cone-3)	ELA1
CAMERON BALLOONS LIMITED	Nissan Micra (Car-1)	ELA1
CAMERON BALLOONS LIMITED	Nudie-90 (Standing Figure-15)	ELA1
CAMERON BALLOONS LIMITED	O-105	ELA1
CAMERON BALLOONS LIMITED	O-120	ELA1
CAMERON BALLOONS LIMITED	O-140	ELA2
CAMERON BALLOONS LIMITED	O-160	ELA2
CAMERON BALLOONS LIMITED	O-26	ELA1
CAMERON BALLOONS LIMITED	O-31	ELA1
CAMERON BALLOONS LIMITED	O-42	ELA1
CAMERON BALLOONS LIMITED	O-56	ELA1
CAMERON BALLOONS LIMITED	O-65	ELA1
CAMERON BALLOONS LIMITED	0-77	ELA1
CAMERON BALLOONS LIMITED	O-84	ELA1
CAMERON BALLOONS LIMITED	O-90	ELA1
CAMERON BALLOONS LIMITED	Obelix-90 (Figure-8)	ELA1
CAMERON BALLOONS LIMITED	Onion-105	ELA1
CAMERON BALLOONS LIMITED	Orange Box-115 (Box-17)	ELA1
CAMERON BALLOONS LIMITED	Orange-120	ELA2 (Volume 3 436 m³)



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	Otti-34	ELA1
CAMERON BALLOONS LIMITED	Pack-130 (Box-18)	ELA2 (Volume 3 681 m³)
CAMERON BALLOONS LIMITED	Paint Can-115 (Cylinder-17)	ELA1
CAMERON BALLOONS LIMITED	Parachutist-110 (Figure-4)	ELA1
CAMERON BALLOONS LIMITED	Peacock-90 (Bird-3)	ELA1
CAMERON BALLOONS LIMITED	Pipe-105 (Standing Figure-9)	ELA1
CAMERON BALLOONS LIMITED	PM-80 (Bottle-9)	ELA1
CAMERON BALLOONS LIMITED	Pot-180 (Cylinder-20)	ELA2 (Volume 5 098 m³)
CAMERON BALLOONS LIMITED	Pot-90	ELA1
CAMERON BALLOONS LIMITED	Printer-105 (Box-15)	ELA1
CAMERON BALLOONS LIMITED	Pylon-80 (Figure-2)	ELA1
CAMERON BALLOONS LIMITED	R-200	ELA2 (Mixed Gas / Hot-Air Balloons)
CAMERON BALLOONS LIMITED	R-210	ELA2 (Mixed Gas / Hot-Air Balloons)
CAMERON BALLOONS LIMITED	R-270	ELA2 (Mixed Gas / Hot-Air Balloons)
CAMERON BALLOONS LIMITED	R-450	ELA2 (Mixed Gas / Hot-Air Balloons)
CAMERON BALLOONS LIMITED	R-550	ELA2 (Mixed Gas / Hot-Air Balloons)
CAMERON BALLOONS LIMITED	R-77	ELA2 (Mixed Gas / Hot-Air Balloons)
CAMERON BALLOONS LIMITED	R-90	ELA2 (Mixed Gas / Hot-Air Balloons)
CAMERON BALLOONS LIMITED	Racing Car-110 (Car-4)	ELA1
CAMERON BALLOONS LIMITED	Raindrop-77	ELA1
CAMERON BALLOONS LIMITED	Robijn N-133	ELA2 (Volume 3 767 m³)
CAMERON BALLOONS LIMITED	Ronald-105 (Standing Figure-11)	ELA1
CAMERON BALLOONS LIMITED	RTW-120	ELA1
CAMERON BALLOONS LIMITED	Rugby-90 (Ball-3)	ELA1
CAMERON BALLOONS LIMITED	Rupert Bear-90 (Standing Figure-5)	ELA1
CAMERON BALLOONS LIMITED	RX-100	ELA1
CAMERON BALLOONS LIMITED	RX-105	ELA1
CAMERON BALLOONS LIMITED	RX-120 Replica	ELA1
CAMERON BALLOONS LIMITED	S Can-100	ELA1
CAMERON BALLOONS LIMITED	S Type Series	Ref.: LBL 210S to 317S
CAMERON BALLOONS LIMITED	Sarotti-105 (Standing Figure-3)	ELA1
CAMERON BALLOONS LIMITED	Saturn-110 (Sphere-110)	ELA1
CAMERON BALLOONS LIMITED	Saucer-80	ELA1
CAMERON BALLOONS LIMITED	Ship-90	ELA1
CAMERON BALLOONS LIMITED	Shoe-90 (Shoe-1)	ELA1
CAMERON BALLOONS LIMITED	Shopping Bag-120 (Box-7)	ELA1
CAMERON BALLOONS LIMITED	Sign-90 (Box-11)	ELA1
CAMERON BALLOONS LIMITED	Sim Card-120	ELA1

GROUP 4 HOT-AIR BALLOONS		
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	Sky-16 Series	Ref.: Sky Models 25-16 to 80-16
CAMERON BALLOONS LIMITED	Sky-24 Series	Ref.: Sky Models 31-24 to 317-24
CAMERON BALLOONS LIMITED	Sky-28 Series	Ref.: Sky Models 400-28 to 500-28
CAMERON BALLOONS LIMITED	Skywhale-110	ELA1
CAMERON BALLOONS LIMITED	Smurf-2 (Head-11)	ELA1
CAMERON BALLOONS LIMITED	Snacpac-90	ELA1
CAMERON BALLOONS LIMITED	Sonic-90 (Figure 1)	ELA1
CAMERON BALLOONS LIMITED	Spaceship-110	ELA1
CAMERON BALLOONS LIMITED	Sparkasse Box-90 (Box-12)	ELA1
CAMERON BALLOONS LIMITED	Special Shape Hot Air Balloons	Ref.: Cameron special shape models - 4 Pack-90 (Four Pack-1), etc.
CAMERON BALLOONS LIMITED	Special Shape Hot Air Balloons LBL	Ref.: LBL Special shape models - Armchair, etc.
CAMERON BALLOONS LIMITED	Sphere-105	ELA1
CAMERON BALLOONS LIMITED	Sport-50	ELA1
CAMERON BALLOONS LIMITED	Sport-60	ELA1
CAMERON BALLOONS LIMITED	Sport-70	ELA1
CAMERON BALLOONS LIMITED	Sport-80	ELA1
CAMERON BALLOONS LIMITED	Sport-90	ELA1
CAMERON BALLOONS LIMITED	Sports Car-110 (Car-2)	ELA1
CAMERON BALLOONS LIMITED	Standing Bear-105	ELA1
CAMERON BALLOONS LIMITED	Startac-105	ELA1
CAMERON BALLOONS LIMITED	Sugar Box-90 (Box-16)	ELA1
CAMERON BALLOONS LIMITED	Sultan-80 (Standing Figure-1)	ELA1
CAMERON BALLOONS LIMITED	Super FMG-100	ELA1
CAMERON BALLOONS LIMITED	Thomas-110 (Locomotive-2)	ELA1
CAMERON BALLOONS LIMITED	Thunder 'Bolt' Type	Ref.: Models AX5-42Bolt to AX7-77Bolt
CAMERON BALLOONS LIMITED	Thunder A Type	Ref.: Models AX6-56A and AX7-77A
CAMERON BALLOONS LIMITED	Thunder AX-Series S1	Ref.: Models AX5-42S1 to AX10-180S1
CAMERON BALLOONS LIMITED	Thunder AX-Series S2	Ref.: Models AX8-90S2 to AX11-250S2
CAMERON BALLOONS LIMITED	Thunder Forklift-90	ELA1
CAMERON BALLOONS LIMITED	Thunder Z Type	Ref.: Model AX4-31Z to AX10-160Z
CAMERON BALLOONS LIMITED	Tiger-90	ELA1
CAMERON BALLOONS LIMITED	Tissue Pack-100 (Four Pack-2)	ELA1
CAMERON BALLOONS LIMITED	TR-60	ELA1
CAMERON BALLOONS LIMITED	TR-65	ELA1
CAMERON BALLOONS LIMITED	TR-70	ELA1



GROUP 4 HOT-AIR BALLOONS		
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	TR-77	ELA1
CAMERON BALLOONS LIMITED	TR-84	ELA1
CAMERON BALLOONS LIMITED	TR-84S1	ELA1
CAMERON BALLOONS LIMITED	TR-84S2	ELA1
CAMERON BALLOONS LIMITED	Trivial Pursuit (Box-1)	ELA1
CAMERON BALLOONS LIMITED	Truck-56	ELA1
CAMERON BALLOONS LIMITED	Truck-72	ELA1
CAMERON BALLOONS LIMITED	Tub-80	ELA1
CAMERON BALLOONS LIMITED	Turtle-120 (Quadruped-13)	ELA1
CAMERON BALLOONS LIMITED	TV-80 (Box-8)	ELA1
CAMERON BALLOONS LIMITED	Tyre-100 (Horizontal Cylinder-2)	ELA1
CAMERON BALLOONS LIMITED	Unox -110 (Hat-3)	ELA1
CAMERON BALLOONS LIMITED	V-31	ELA1
CAMERON BALLOONS LIMITED	V-42	ELA1
CAMERON BALLOONS LIMITED	V-56	ELA1
CAMERON BALLOONS LIMITED	V-65	ELA1
CAMERON BALLOONS LIMITED	V-77	ELA1
CAMERON BALLOONS LIMITED	V-90	ELA1
CAMERON BALLOONS LIMITED	Van Gogh-110 Head-14	ELA1
CAMERON BALLOONS LIMITED	Van-110	ELA1
CAMERON BALLOONS LIMITED	Wallaby-42	ELA1
CAMERON BALLOONS LIMITED	Watch-75	ELA1
CAMERON BALLOONS LIMITED	Waving Flag-105	ELA1
CAMERON BALLOONS LIMITED	Waving Flag-90	ELA1
CAMERON BALLOONS LIMITED	Whisky Bottle-90 (Bottle-6)	ELA1
CAMERON BALLOONS LIMITED	Wimi Airbus-90 (Wimi-2)	ELA1
CAMERON BALLOONS LIMITED	Wine Box-90 (Box-13)	ELA1
CAMERON BALLOONS LIMITED	Z-105	ELA1
CAMERON BALLOONS LIMITED	Z-120	ELA1
CAMERON BALLOONS LIMITED	Z-133	ELA2
CAMERON BALLOONS LIMITED	Z-140	ELA2
CAMERON BALLOONS LIMITED	Z-145	ELA2
CAMERON BALLOONS LIMITED	Z-150	ELA2
CAMERON BALLOONS LIMITED	Z-160	ELA2
CAMERON BALLOONS LIMITED	Z-180	ELA2
CAMERON BALLOONS LIMITED	Z-210	ELA2
CAMERON BALLOONS LIMITED	Z-225	ELA2
CAMERON BALLOONS LIMITED	Z-250	ELA2
CAMERON BALLOONS LIMITED	Z-275	ELA2
CAMERON BALLOONS LIMITED	Z-31	ELA1
CAMERON BALLOONS LIMITED	Z-315	ELA2
CAMERON BALLOONS LIMITED	Z-350	ELA2
CAMERON BALLOONS LIMITED	Z-375	ELA2
CAMERON BALLOONS LIMITED	Z-400	ELA2



GROUP 4 HOT-AIR BALLOONS		
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	Z-42	ELA1
CAMERON BALLOONS LIMITED	Z-425LW	ELA2
CAMERON BALLOONS LIMITED	Z-450	ELA2
CAMERON BALLOONS LIMITED	Z-450Z	ELA2
CAMERON BALLOONS LIMITED	Z-56	ELA1
CAMERON BALLOONS LIMITED	Z-600	ELA2
CAMERON BALLOONS LIMITED	Z-65	ELA1
CAMERON BALLOONS LIMITED	Z-69	ELA1
CAMERON BALLOONS LIMITED	Z-750	ELA2
CAMERON BALLOONS LIMITED	Z-77	ELA1
CAMERON BALLOONS LIMITED	Z-90	ELA1
HEAD BALLOONS	AX7-77	ELA2
HEAD BALLOONS	AX7-77b	ELA2
HEAD BALLOONS	AX8-105	ELA2
HEAD BALLOONS	AX8-88	ELA2
HEAD BALLOONS	AX8-88b	ELA2
HEAD BALLOONS	AX9-118	ELA2
JR AEROSPORTS LTD	Firefly 10	ELA2
JR AEROSPORTS LTD	Firefly 11	ELA2
JR AEROSPORTS LTD	Firefly 11B	ELA2
JR AEROSPORTS LTD	Firefly 5	ELA2
JR AEROSPORTS LTD	Firefly 6	ELA2
JR AEROSPORTS LTD	Firefly 6B	ELA2
JR AEROSPORTS LTD	Firefly 6B-15	ELA2
JR AEROSPORTS LTD	Firefly 7	ELA2
JR AEROSPORTS LTD	Firefly 7-15	ELA2
JR AEROSPORTS LTD	Firefly 7B	ELA2
JR AEROSPORTS LTD	Firefly 7B-15	ELA2
JR AEROSPORTS LTD	Firefly 8	ELA2
JR AEROSPORTS LTD	Firefly 8-24	ELA2
JR AEROSPORTS LTD	Firefly 8B	ELA2
JR AEROSPORTS LTD	Firefly 8B-15	ELA2
JR AEROSPORTS LTD	Firefly 9	ELA2
JR AEROSPORTS LTD	Firefly 9B-15	ELA2
JR AEROSPORTS LTD	Firefly B7	ELA2
JR AEROSPORTS LTD	Firefly Bottle	ELA2
JR AEROSPORTS LTD	Firefly C7	ELA2
JR AEROSPORTS LTD	Firefly C7B	ELA2
JR AEROSPORTS LTD	Firefly C8	ELA2
JR AEROSPORTS LTD	Galaxy-7	ELA2
JR AEROSPORTS LTD	Galaxy-8	ELA2
JR AEROSPORTS LTD	Galaxy-9	ELA2
KAVANAGH INVESTMENT TRUST	B-105	ELA1
KAVANAGH INVESTMENT TRUST	B-350	ELA2



GROUP 4 HOT-AIR BALLOONS		
TC Holder	Model	Note
KAVANAGH INVESTMENT TRUST	B-400	ELA2
KAVANAGH INVESTMENT TRUST	B-77	ELA1
KAVANAGH INVESTMENT TRUST	C-56	ELA1
KAVANAGH INVESTMENT TRUST	C-65	ELA1
KAVANAGH INVESTMENT TRUST	C-77	ELA1
KAVANAGH INVESTMENT TRUST	D-105	ELA1
KAVANAGH INVESTMENT TRUST	D-77	ELA1
KAVANAGH INVESTMENT TRUST	D-84	ELA1
KAVANAGH INVESTMENT TRUST	D-90	ELA1
KAVANAGH INVESTMENT TRUST	E-120	ELA1
KAVANAGH INVESTMENT TRUST	E-140	ELA2
KAVANAGH INVESTMENT TRUST	E-160	ELA2
KAVANAGH INVESTMENT TRUST	E-180	ELA2
KAVANAGH INVESTMENT TRUST	E-210	ELA2
KAVANAGH INVESTMENT TRUST	E-240	ELA2
KAVANAGH INVESTMENT TRUST	E-260	ELA2
KAVANAGH INVESTMENT TRUST	E-300	ELA2
KAVANAGH INVESTMENT TRUST	EX-65	ELA1
KAVANAGH INVESTMENT TRUST	G-450	ELA2
LINDSTRAND TECHNOLOGIES LTD.	70	ELA1
LINDSTRAND TECHNOLOGIES LTD.	80	ELA1
LINDSTRAND TECHNOLOGIES LTD.	90	ELA1
LINDSTRAND TECHNOLOGIES LTD.	105	ELA1
LINDSTRAND TECHNOLOGIES LTD.	120	ELA1
LINDSTRAND TECHNOLOGIES LTD.	150	ELA2
LINDSTRAND TECHNOLOGIES LTD.	180	ELA2
LINDSTRAND TECHNOLOGIES LTD.	Lindstrand Racer Series	ELA1
LINDSTRAND TECHNOLOGIES LTD.	Lindstrand Series 1	ELA2
LINDSTRAND TECHNOLOGIES LTD.	LTL Series Special	ELA2
LINDSTRAND TECHNOLOGIES LTD.	SR-56	ELA1
LINDSTRAND TECHNOLOGIES LTD.	SR-65	ELA1
NOTHEISZ BALLOONS HUNGARY Kft.	AX-10	ELA2
NOTHEISZ BALLOONS HUNGARY Kft.	AX-6	ELA1
NOTHEISZ BALLOONS HUNGARY Kft.	AX-7	ELA1
NOTHEISZ BALLOONS HUNGARY Kft.	AX-8	ELA1
NOTHEISZ BALLOONS HUNGARY Kft.	AX-9	ELA2
NOUVELLE MANUFACT. D'AEROSTATS	MA 18	ELA1
NOUVELLE MANUFACT. D'AEROSTATS	MA 26	ELA1
NOUVELLE MANUFACT. D'AFROSTATS	MA 26	ELA1
NOUVELLE MANUFACT, D'AFROSTATS	MA 30	ELA1
NOUVELLE MANUFACT, D'AEROSTATS	MA 35	ELA1
NOUVELLE MANUFACT. D'AEROSTATS	MA 40	ELA2
SUP-AIR BALLON EGYESŰLET	B-AX 8	ELA1



GROUP 4 HOT-AIR BALLOONS		
TC Holder	Model	Note
SUP-AIR BALLON EGYESŰLET	C-AX 9	ELA2
SUP-AIR BALLON EGYESŰLET	D-AX 5	ELA1
SUP-AIR BALLON EGYESŰLET	E-AX-10	ELA2
SUP-AIR BALLON EGYESŰLET	F-AX 7	ELA1
THEO SCHROEDER FIRE BALLOONS	Auto	ELA2
THEO SCHROEDER FIRE BALLOONS	Bierglas	ELA1
THEO SCHROEDER FIRE BALLOONS	Cat	ELA1
THEO SCHROEDER FIRE BALLOONS	Clown-Kopf	ELA1
THEO SCHROEDER FIRE BALLOONS	Erdbeere	ELA1
THEO SCHROEDER FIRE BALLOONS	Fire Balloons G	ELA2
THEO SCHROEDER FIRE BALLOONS	Gasbehälter	ELA1
THEO SCHROEDER FIRE BALLOONS	Gasflasche	ELA1
THEO SCHROEDER FIRE BALLOONS	Gutfried	ELA1
THEO SCHROEDER FIRE BALLOONS	Kasper	ELA2
THEO SCHROEDER FIRE BALLOONS	Kater	ELA1
THEO SCHROEDER FIRE BALLOONS	Katze	ELA1
THEO SCHROEDER FIRE BALLOONS	Kopf	ELA1
THEO SCHROEDER FIRE BALLOONS	Kopfhörer	ELA2
THEO SCHROEDER FIRE BALLOONS	Lefax	ELA2
THEO SCHROEDER FIRE BALLOONS	Maus	ELA1
THEO SCHROEDER FIRE BALLOONS	Ottifant	ELA1
THEO SCHROEDER FIRE BALLOONS	Pig 30	ELA1
THEO SCHROEDER FIRE BALLOONS	Pig 36	ELA2
THEO SCHROEDER FIRE BALLOONS	Pinguin	ELA2
THEO SCHROEDER FIRE BALLOONS	Schwartau	ELA2
THEO SCHROEDER FIRE BALLOONS	Sky Heart	ELA2
THEO SCHROEDER FIRE BALLOONS	Sunflower 36	ELA2
THEO SCHROEDER FIRE BALLOONS	Teefix	ELA1
THEO SCHROEDER FIRE BALLOONS	Teekanne	ELA1
THEO SCHROEDER FIRE BALLOONS	Vase	ELA1
ULTRAMAGIC, S.A.	B-Series	ELA1
ULTRAMAGIC, S.A.	B-Series B-70	ELA1
ULTRAMAGIC, S.A.	F-10 TXORI	ELA1
ULTRAMAGIC, S.A.	F-11 MONTGOLFIERE	ELA1
ULTRAMAGIC, S.A.	F-12 PAQUETE	ELA1
ULTRAMAGIC, S.A.	F-13 FAIRY	ELA2
ULTRAMAGIC, S.A.	F-14 JARRA DE CERVEZA	ELA1
ULTRAMAGIC, S.A.	F-15 BOTE-HUCHA	ELA1
ULTRAMAGIC, S.A.	F-16 CAJA 2	ELA1
ULTRAMAGIC, S.A.	F-17 OVNI	ELA1
ULTRAMAGIC, S.A.	F-18 PIZZA	ELA2
ULTRAMAGIC, S.A.	F-19 CAVA	ELA1
ULTRAMAGIC, S.A.	F-20 BEETLE	ELA1
ULTRAMAGIC, S.A.	F-21 CEPSA	ELA1



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
ULTRAMAGIC, S.A.	F-22 TORRE	ELA1
ULTRAMAGIC, S.A.	F-24 FLYINGMAN	ELA2
ULTRAMAGIC, S.A.	F-25 FUTBOL	ELA1
ULTRAMAGIC, S.A.	F-26 HEART	ELA1
ULTRAMAGIC, S.A.	F-29 MOVISTAR	ELA2
ULTRAMAGIC, S.A.	F-30 EGG	ELA1
ULTRAMAGIC, S.A.	F-31 MAZORCA DEKALB	ELA2
ULTRAMAGIC, S.A.	F-32 BEIRAO BOTTLE	ELA1
ULTRAMAGIC, S.A.	F-33 PHAROX LAMP	ELA2
ULTRAMAGIC, S.A.	F-34 METTEN	ELA2
ULTRAMAGIC, S.A.	F-35 R4TS	ELA2
ULTRAMAGIC, S.A.	F-4 TXORI	ELA1
ULTRAMAGIC, S.A.	F-6 JAMBON	ELA1
ULTRAMAGIC, S.A.	F-7 BOTE	ELA1
ULTRAMAGIC, S.A.	F-8 LA CARTUJA	ELA2
ULTRAMAGIC, S.A.	F-9 BOTELLA DE AGUA	ELA1
ULTRAMAGIC, S.A.	F-Series	ELA1
ULTRAMAGIC, S.A.	G-Series	ELA1
ULTRAMAGIC, S.A.	H-Series	ELA1
ULTRAMAGIC, S.A.	H-Series H-31	ELA1
ULTRAMAGIC, S.A.	H-Series H-42	ELA1
ULTRAMAGIC, S.A.	H-Series H-56	ELA1
ULTRAMAGIC, S.A.	H-Series H-65	ELA1
ULTRAMAGIC, S.A.	H-Series H-77	ELA1
ULTRAMAGIC, S.A.	M-Series M-105	ELA1
ULTRAMAGIC, S.A.	M-Series M-120	ELA1
ULTRAMAGIC, S.A.	M-Series M-130	ELA2
ULTRAMAGIC, S.A.	M-Series M-145	ELA2
ULTRAMAGIC, S.A.	M-Series M-160	ELA2
ULTRAMAGIC, S.A.	M-Series M-42	ELA1
ULTRAMAGIC, S.A.	M-Series M-56	ELA1
ULTRAMAGIC, S.A.	M-Series M-56C	ELA1
ULTRAMAGIC, S.A.	M-Series M-65	ELA1
ULTRAMAGIC, S.A.	M-Series M-65C	ELA1
ULTRAMAGIC, S.A.	M-Series M-77	ELA1
ULTRAMAGIC, S.A.	M-Series M-77C	ELA1
ULTRAMAGIC, S.A.	M-Series M-90	ELA1
ULTRAMAGIC, S.A.	N-Series	ELA2
ULTRAMAGIC, S.A.	N-Series N-180	ELA2
ULTRAMAGIC, S.A.	N-Series N-210	ELA2
ULTRAMAGIC, S.A.	N-Series N-250	ELA2
ULTRAMAGIC, S.A.	N-Series N-300	ELA2
ULTRAMAGIC, S.A.	N-Series N-355	ELA2
ULTRAMAGIC, S.A.	N-Series N-425	ELA2



G	ROUP 4 HOT-AIR BALLOONS	
TC Holder	Model	Note
ULTRAMAGIC, S.A.	N-Series N-500	ELA2
ULTRAMAGIC, S.A.	S-Series S-105	ELA1
ULTRAMAGIC, S.A.	S-Series S-130	ELA2
ULTRAMAGIC, S.A.	S-Series S-160	ELA2
ULTRAMAGIC, S.A.	S-Series S-50	ELA1
ULTRAMAGIC, S.A.	S-Series S-70	ELA1
ULTRAMAGIC, S.A.	S-Series S-90	ELA1
ULTRAMAGIC, S.A.	T-Series	ELA2
ULTRAMAGIC, S.A.	T-Series T-150	ELA2
ULTRAMAGIC, S.A.	T-Series T-180	ELA2
ULTRAMAGIC, S.A.	T-Series T-210	ELA2
ULTRAMAGIC, S.A.	V-Series	ELA1
ULTRAMAGIC, S.A.	V-Series V-105	ELA1
ULTRAMAGIC, S.A.	V-Series V-25	ELA1
ULTRAMAGIC, S.A.	V-Series V-56	ELA1
ULTRAMAGIC, S.A.	V-Series V-65	ELA1
ULTRAMAGIC, S.A.	V-Series V-77	ELA1
ULTRAMAGIC, S.A.	V-Series V-90	ELA1
ULTRAMAGIC, S.A.	Z Series	ELA1
ULTRAMAGIC, S.A.	Z-Series Z-90	ELA1
WITHOUT TC HOLDER — ORPHANED	105 A	ELA1
WITHOUT TC HOLDER — ORPHANED	120 A	ELA1
WITHOUT TC HOLDER — ORPHANED	160 A	ELA2
WITHOUT TC HOLDER — ORPHANED	180 A	ELA2
WITHOUT TC HOLDER — ORPHANED	210 A	ELA2
WITHOUT TC HOLDER — ORPHANED	240 A	ELA2
WITHOUT TC HOLDER — ORPHANED	56 A	ELA1
WITHOUT TC HOLDER — ORPHANED	69 A	ELA1
WITHOUT TC HOLDER — ORPHANED	77 A	ELA1
WITHOUT TC HOLDER — ORPHANED	90 A	ELA1
WITHOUT TC HOLDER — ORPHANED	FRX 65	ELA2
WITHOUT TC HOLDER — ORPHANED	FS 57 A	ELA2
WITHOUT TC HOLDER — ORPHANED	FS 83 A	ELA2
WITHOUT TC HOLDER — ORPHANED	RX 6	ELA2
WITHOUT TC HOLDER — ORPHANED	RX 7	ELA2
WITHOUT TC HOLDER — ORPHANED	RX 8	ELA2
WITHOUT TC HOLDER — ORPHANED	RX 9	ELA2
WITHOUT TC HOLDER — ORPHANED	RXS 8	ELA2
WITHOUT TC HOLDER — ORPHANED	S 40 A	ELA2
WITHOUT TC HOLDER — ORPHANED	S 49 A	ELA2
WITHOUT TC HOLDER — ORPHANED	S 50 A	ELA2
WITHOUT TC HOLDER — ORPHANED	S 52 A	ELA2
WITHOUT TC HOLDER — ORPHANED	S 52 A	ELA2
WITHOUT TC HOLDER — ORPHANED	S 60 A	ELA2

#### Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

GROUP 4 HOT-AIR BALLOONS		
TC Holder	Model	Note
WITHOUT TC HOLDER — ORPHANED	S 66 A	ELA2
WITHOUT TC HOLDER — ORPHANED	S 71 A	ELA2
WITHOUT TC HOLDER — ORPHANED	S 77 A	ELA2
WITHOUT TC HOLDER — ORPHANED	SCB AX-6	ELA2
WITHOUT TC HOLDER — ORPHANED	SCB AX-7	ELA2
WITHOUT TC HOLDER — ORPHANED	SCB AX-8	ELA2
WITHOUT TC HOLDER — ORPHANED	SCB AX-9	ELA2

## **GROUP 4 GAS AIRSHIPS (other than those in Group 1)**

GROUP 4 GAS AIRSHIPS		
TC Holder	Model	Note
AMERICAN BLIMP CORPORATION	A-1-50	ELA2
AMERICAN BLIMP CORPORATION	A-1-70	ELA2
AMERICAN BLIMP CORPORATION	A-60	ELA2
AMERICAN BLIMP CORPORATION	A-60+	ELA2
CAMERON BALLOONS LIMITED	DG-14	ELA2
WDL LUFTSCHIFFGESELLSCHAFT MBH	P 4360 A	ELA2
WDL LUFTSCHIFFGESELLSCHAFT MBH	WDLI	ELA2
WDL LUFTSCHIFFGESELLSCHAFT MBH	WDLIB	ELA2

#### Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

## **GROUP 4 HOT-AIR AIRSHIPS**

GROUP 4 HOT-AIR AIRSHIPS		
TC Holder	Model	Note
CAMERON BALLOONS LIMITED	AS 105 GD/4	ELA1
CAMERON BALLOONS LIMITED	AS 105 GD/6	ELA2
CAMERON BALLOONS LIMITED	AS 105 MkII	ELA1
CAMERON BALLOONS LIMITED	AS 120 MkII	ELA1
CAMERON BALLOONS LIMITED	AS 80 GD	ELA1
CAMERON BALLOONS LIMITED	AS 80 MkII	ELA1
CAMERON BALLOONS LIMITED	D-38	ELA1
CAMERON BALLOONS LIMITED	D-50	ELA1
CAMERON BALLOONS LIMITED	D-77	ELA1
CAMERON BALLOONS LIMITED	D-96	ELA1
CAMERON BALLOONS LIMITED	DP-50	ELA1
CAMERON BALLOONS LIMITED	DP-60	ELA1
CAMERON BALLOONS LIMITED	DP-70	ELA1
CAMERON BALLOONS LIMITED	DP-80	ELA1
CAMERON BALLOONS LIMITED	DP-90	ELA1
LINDSTRAND HOT AIR BALLOONS	HS-110	ELA1

# Appendix II — Aircraft Type Practical Experience and On-the-Job Training - List of Tasks

ED Decision 2019/009/R

#### Tasks are divided in categories of aircraft:

- A) aeroplanes
- B) sailplanes and powered sailplanes
- C) balloons and airships

#### A. SPECIFIC TASKS FOR AEROPLANES

#### Time limits/Maintenance checks

100 hour check (general aviation aircraft).

'B' or 'C' check (transport category aircraft).

Assist carrying out a scheduled maintenance check i.a.w. AMM.

Review Aircraft maintenance log for correct completion.

Review records for compliance with Airworthiness Directives.

Review records for compliance with component life limits.

Procedure for inspection following heavy landing.

Procedure for inspection following lightning strike.

**Dimensions/Areas** 

Locate component(s) by zone/station number.

Perform symmetry check.

**Lifting and Shoring** 

Assist in:

Jack aircraft nose or tail wheel.

Jack complete aircraft.

Sling or trestle major component.

Levelling/Weighing

Level aircraft.

Weigh aircraft.

Prepare weight and balance amendment.

Check aircraft against equipment list.

**Towing and Taxiing** 

Prepare for aircraft towing.

Tow aircraft.



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

Be part of aircraft towing team.
Parking and mooring
Tie down aircraft.
Park, secure and cover aircraft.
Position aircraft in dock.
Secure rotor blades.
Placards and Markings
Check aircraft for correct placards.
Check aircraft for correct markings.
Servicing
Refuel aircraft.
Defuel aircraft.
Carry out tank to tank fuel transfer.
Check/adjust tire pressures.
Check/replenish oil level.
Check/replenish hydraulic fluid level.
Check/replenish accumulator pressure.
Charge pneumatic system.
Grease aircraft.
Connect ground power.
Service toilet/water system
Perform pre-flight/daily check.
Vibration and Noise Analysis
Analyse helicopter vibration problem.
Analyse noise spectrum.
Analyse engine vibration.
Air Conditioning
Replace combustion heater.
Replace flow control valve.
Replace outflow valve.
Replace safety valve.
Replace vapour cycle unit.
Replace air cycle unit.

Replace cabin blower.



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

Replace heat exchanger.

Replace pressurisation controller.

Clean outflow valves.

Deactivate/reactivate cargo isolation valve.

Deactivate/reactivate avionics ventilation components.

Check operation of air conditioning/heating system.

Check operation of pressurisation system.

Troubleshoot faulty system.

**Auto flight** 

Install servos.

Rig bridle cables Replace controller.

Replace amplifier.

Replacement of the auto flight system LRUs in case of fly-by-wire aircraft.

Check operation of auto-pilot.

Check operation of auto-throttle/auto-thrust.

Check operation of yaw damper.

Check and adjust servo clutch.

Perform autopilot gain adjustments.

Perform mach trim functional check.

Troubleshoot faulty system.

Check autoland system.

Check flight management systems.

Check stability augmentation system.

Communications

Replace VHF COM unit.

Replace HF COM unit.

Replace existing antenna.

Replace static discharge wicks.

Check operation of radios.

Perform antenna VSWR check.

Perform SELCAL operational check.

Perform operational check of passenger address system.

Functionally check audio integrating system.

Repair coaxial cable.

Troubleshoot faulty system.



Charge lead/acid battery.

#### Easy Access Rules for Continuing Airworthiness (Regulation (EU) No 1321/2014)

Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

Check SATCOM.

Tlastuia:	I Dower

Charge Ni-Cad battery. Check battery capacity. Deep-cycle Ni-Cad battery. Replace integrated drive/generator/alternator. Replace switches. Replace circuit breakers. Adjust voltage regulator. Change voltage regulator. Amend electrical load analysis report. Repair/replace electrical feeder cable. Troubleshoot faulty system. Perform functional check of integrated drive/generator/alternator. Perform functional check of voltage regulator. Perform functional check of emergency generation system. **Equipment/Furnishings** Replace carpets Replace crew seats. Replace passenger seats. Check inertia reels. Check seats/belts for security. Check emergency equipment. Check ELT for compliance with regulations.

# Change cabin configuration.

Repair upholstery.

Repair toilet waste container.

Replace cargo loading system actuator.

Remove and install ceiling and sidewall panels.

Test cargo loading system.

Replace escape slides/ropes.

#### Fire protection

Check fire bottle contents.

Check/test operation of fire/smoke detection and warning system.



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

Check cabin fire extinguisher contents.

Check lavatory smoke detector system.

Check cargo panel sealing.

Install new fire bottle.

Replace fire bottle squib.

Troubleshoot faulty system.

Inspect engine fire wire detection systems.

#### **Flight Controls**

Inspect primary flight controls and related components i.a.w. AMM.

Extending/retracting flaps & slats.

Replace horizontal stabiliser.

Replace spoiler/lift damper.

Replace elevator.

Deactivation/reactivation of aileron servo control.

Replace aileron.

Replace rudder.

Replace trim tabs.

Install control cable and fittings.

Replace slats.

Replace flaps.

Replace powered flying control unit.

Replace flat actuator.

Rig primary flight controls.

Adjust trim tab.

Adjust control cable tension.

Check control range and direction of movement.

Check for correct assembly and locking.

Troubleshoot faulty system.

Functional test of primary flight controls.

Functional test of flap system.

Operational test of the side stick assembly.

Operational test of the THS.

THS system wear check.



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

## Fuel

Water drain system (operation).
Replace booster pump.
Replace fuel selector.
Replace fuel tank cells.
Replace/test fuel control valves.
Replace magnetic fuel level indicators.
Replace water drain valve.
Check/calculate fuel contents manually.
Check filters.
Flow check system.
Check calibration of fuel quantity gauges.
Check operation feed/selectors.
Check operation of fuel dump/jettison system.
Fuel transfer between tanks.
Pressure defuel.
Pressure refuel (manual control).
Deactivation/reactivation of the fuel valves (transfer defuel, X-feed, refuel).
Troubleshoot faulty system.
Troubleshoot faulty system.  Hydraulics
Hydraulics
Hydraulics Replace engine driven pump.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.  Replace hydraulic motor pump/generator.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.  Replace hydraulic motor pump/generator.  Replace accumulator.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.  Replace hydraulic motor pump/generator.  Replace accumulator.  Check operation of shut off valve.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.  Replace hydraulic motor pump/generator.  Replace accumulator.  Check operation of shut off valve.  Check filters/clog indicators.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.  Replace hydraulic motor pump/generator.  Replace accumulator.  Check operation of shut off valve.  Check filters/clog indicators.  Check indicating systems.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.  Replace hydraulic motor pump/generator.  Replace accumulator.  Check operation of shut off valve.  Check filters/clog indicators.  Check indicating systems.  Perform functional checks.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.  Replace hydraulic motor pump/generator.  Replace accumulator.  Check operation of shut off valve.  Check filters/clog indicators.  Check indicating systems.  Perform functional checks.  Pressurisation/depressurisation of the hydraulic system.
Hydraulics  Replace engine driven pump.  Check/replace case drain filter.  Replace standby pump.  Replace hydraulic motor pump/generator.  Replace accumulator.  Check operation of shut off valve.  Check filters/clog indicators.  Check indicating systems.  Perform functional checks.  Pressurisation/depressurisation of the hydraulic system.  Power Transfer Unit (PTU) operation.



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

## Ice and rain protection

Replace pump.
Replace timer.
Inspect repair propeller deice boot.
Test propeller de-icing system.
Inspect/test wing leading edge de-icer boot.
Replace anti-ice/deice valve.
Install wiper motor.
Check operation of systems.
Operational test of the pitot-probe ice protection.
Operational test of the TAT ice protection.
Operational test of the wing ice protection system.
Assistance to the operational test of the engine air-intake ice protection (with engines operating).
Troubleshoot faulty system.
Indicating/recording systems
Replace flight data recorder.
Replace cockpit voice recorder.
Replace clock.
Replace master caution unit.
Replace FDR.
Perform FDR data retrieval.
Troubleshoot faulty system.
Implement ESDS procedures.
Inspect for HIRF requirements.
Start/stop EIS procedure.
Bite test of the CFDIU.
Ground scanning of the central warning system.
Landing Gear
Build up wheel.
Replace main wheel.
Replace nose wheel.
Replace steering actuator.
Replace truck tilt actuator.
Replace gear retraction actuator.
Replace uplock/downlock assembly.



Replace shimmy damper.
Rig nose wheel steering.
Functional test of the nose wheel steering system.
Replace shock strut seals.
Replace brake unit.
Replace brake control valve.
Bleed brakes.
Replace brake fan.
Test anti-skid unit.
Test gear retraction.
Change bungees.
Adjust micro switches/sensors.
Charge struts with oil and air.
Troubleshoot faulty system.
Test auto-brake system.
Replace rotorcraft skids.
Replace rotorcraft skid shoes.
Pack and check floats.
Flotation equipment.
Check/test emergency blowdown (emergency landing gear extension).
Operational test of the landing gear doors.
Lights
Repair/replace rotating beacon.
Repair/replace landing lights.
Repair/replace navigation lights.
Repair/replace interior lights.
Replace ice inspection lights.
Repair/replace logo lights.
Repair/replace emergency lighting system.
Perform emergency lighting system checks.
Troubleshoot faulty system
Instruments
Troubleshoot faulty system.
Calibrate magnetic direction indicator.
Replace airspeed indicator.



	(Part-66
Replace altimeter.	
Replace air-data computer.	
Replace ADI.	
Replace HSI.	
Check pitot static system for leaks.	
Check operation of directional gyro.	
Check calibration of pitot static instruments.	
Compass replacement direct/indirect.	
Functional check flight director system.	
Surveillance	
Troubleshoot faulty system.	
Functional check weather radar.	
Functional check doppler.	
Functional check TCAS.	
Functional check ATC transponder.	
Check calibration of pressure altitude reporting system.	
Navigation	
Functional check inertial navigation system.	
Complete quadrantal error correction of ADF system.	
Check GPS.	
Test AVM.	
Check marker systems.	
Functional check DME.	
Oxygen	
Inspect on board oxygen equipment.	
Purge and recharge oxygen system.	
Replace regulator.	
Replace oxygen generator.	
Test crew oxygen system.	
Perform auto oxygen system deployment check.	
Troubleshoot faulty system.	
Pneumatic systems	
Replace filter.	
Replace air shut off valve.	
Replace pressure regulating valve.	



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

Replace compressor.
Recharge dessicator.
Adjust regulator.
Check for leaks.
Troubleshoot faulty system.
Vacuum systems
Inspect the vacuum system i.a.w. AMM.
Replace vacuum pump.
Check/replace filters.
Adjust regulator.
Troubleshoot faulty system.
Water/Waste
Replace water pump.
Replace tap.
Replace toilet pump.
Perform water heater functional check.
Troubleshoot faulty system.
Inspect waste bin flap closure.
Central Maintenance System
Retrieve data from CMU.
Replace CMU.
Perform Bite check.
Troubleshoot faulty system.
Airborne Auxiliary power
Install APU.
Inspect hot section.
Troubleshoot faulty system.
Structures
Assessment of damage.
Sheet metal repair.
Fibre glass repair.
Wooden repair.
Fabric repair.
Recover fabric control surface.

Treat corrosion.



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

Apply protective treatment.

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	Doors
Inspect passenger door i.a.w. AMM.	
Rig/adjust locking mechanism.	
Adjust air stair system.	
Check operation of emergency exits.	
Test door warning system.	
Troubleshoot faulty system.	
Remove and install passenger door i.a.w. AMN	<b>V</b> I.
Remove and install emergency exit i.a.w. AMN	<b>√</b> 1.
Inspect cargo door i.a.w. AMM.	
	Windows
Replace windshield.	
Replace direct vision window.	
Replace cabin window.	
Repair transparency.	
	Wings
Skin repair.	
Recover fabric wing.	
Replace tip.	
Replace rib.	
Replace integral fuel tank panel.	
Check incidence/rig.	
	Propeller
Assemble prop after transportation.	
Replace propeller.	
Replace governor.	
Adjust governor.	
Perform static functional checks.	
Check operation during ground run.	
Check track.	
Check setting of micro switches.	
Assessment of blade damage i.a.w. AMM.	
Dynamically balance prop.	
Troubleshoot faulty system.	



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III

(Part-66)

# **Main Rotors** Install rotor assembly. Replace blades. Replace damper assembly. Check track. Check static balance. Check dynamic balance. Troubleshoot. **Rotor Drive** Replace mast. Replace drive coupling. Replace clutch/freewheel unit Replace drive belt. Install main gearbox. Overhaul main gearbox. Check gearbox chip detectors. **Tail Rotors** Install rotor assembly. Replace blades. Troubleshoot. **Tail Rotor Drive** Replace bevel gearbox. Replace universal joints. Overhaul bevel gearbox. Install drive assembly. Check chip detectors. Check/install bearings and hangers. Check/service/assemble flexible couplings. Check alignment of drive shafts. Install and rig drive shafts. **Rotorcraft flight controls** Install swash plate.

Rig collective system.

Install mixing box.

Adjust pitch links.



Rig cyclic system.		
Rig anti-torque system.		
Check controls for assembly and locking.		
Check controls for operation and sense.		
Troubleshoot faulty system.		
	Power Plant	
Build up ECU.		
Replace engine.		
Repair cooling baffles.		
Repair cowling.		
Adjust cowl flaps.		
Repair faulty wiring.		
Troubleshoot.		
Assist in dry motoring check.		
Assist in wet motoring check.		
Assist in engine start (manual mode).		
	Piston Engines	
Remove/install reduction gear.		
Check crankshaft run-out.		
Check tappet clearance.		
Check compression.		
Extract broken stud.		
Install helicoil.		
Perform ground run.		
Establish/check reference RPM.		
Troubleshoot.		
	<b>Turbine Engines</b>	
Replace module.		
Replace fan blade.		
Hot section inspection/boroscope check.		
Carry out engine/compressor wash.		
Carry out engine dry cycle.		
Engine ground run.		
Establish reference power.		
Trend monitoring/gas path analysis.		



Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

Troubleshoot.
Fuel and control, piston
Replace engine driven pump.
Adjust AMC.
Adjust ABC.
Install carburettor/injector.
Adjust carburettor/injector.
Clean injector nozzles.
Replace primer line.
Check carburettor float setting.
Troubleshoot faulty system.
Fuel and control, turbine
Replace FCU.
Replace Engine Electronic Control Unit (FADEC).
Replace Fuel Metering Unit (FADEC).
Replace engine driven pump.
Clean/test fuel nozzles.
Clean/replace filters.
Adjust FCU.
Troubleshoot faulty system.
Functional test of FADEC.
Ignition systems, piston
Change magneto.
Change ignition vibrator.
Change plugs.
Test plugs.
Check H.T. leads.
Install new leads.
Check timing.
Check system bonding.
Troubleshoot faulty system.
Ignition systems, turbine
Perform functional test of the ignition system.
Check glow plugs/ignitors.

Check H.T. leads.



Check ignition unit.
Replace ignition unit.
Troubleshoot faulty system.
Engine Controls
Rig thrust lever.
Rig RPM control.
Rig mixture HP cock lever.
Rig power lever.
Check control sync (multi-eng).
Check controls for correct assembly and locking.
Check controls for range and direction of movement.
Adjust pedestal micro-switches.
Troubleshoot faulty system.
Engine Indicating
Replace engine instruments(s).
Replace oil temperature bulb.
Replace thermocouples.
Check calibration.
Troubleshoot faulty system.
Exhaust, piston
Replace exhaust gasket.
Inspect welded repair.
Pressure check cabin heater muff.
Troubleshoot faulty system.
Exhaust, turbine
Change jet pipe.
Change shroud assembly.
Install trimmers.
Inspect/replace thrust reverser.
Replace thrust reverser component.
Deactivate/reactivate thrust reverser.
Operational test of the thrust reverser system.
Oil
Change oil.
Check filter(s).



Adjust pressure relief valve.
Replace oil tank.
Replace oil pump.
Replace oil cooler.
Replace firewall shut off valve.
Perform oil dilution test.
Troubleshoot faulty system.
Starting
Replace starter.
Replace start relay.
Replace start control valve.
Check cranking speed.
Troubleshoot faulty system.
Turbines, piston engines
Replace PRT.
Replace turbo-blower.
Replace heat shields.
Replace waste gate.
Adjust density controller.
Engine water injection
Replace water/methanol pump.
Flow check water/methanol system.
Adjust water/methanol control unit.
Check fluid for quality.
Troubleshoot faulty system
Accessory gear boxes
Replace gearbox.
Replace drive shaft.
Inspect magnetic chip detector.
APU
Removal/installation of the APU.
Removal/installation of the inlet guide-vane actuator.
Operational test of the APU emergency shut-down test.
Operational test of the APU.

## B. SPECIFIC TASKS FOR SAILPLANES AND POWERED SAILPLANES

General activities	
General activities	
Placards check or replace	X
Weighing, weight & balance sheet	X
Documentation of annual inspection, repair	X
Review records for compliance with airworthiness directives	X
Five annual inspections	X
Inspection after an occurrence	Х
Dismantling/reinstallation of wings and empennages	X
Leveling and weighing	
Level the sailplane	X
Weighing, weight & balance sheet	Х
Prepare a weight and balance amendment	Х
Check the list of equipment	Х
Flight controls and flight control systems	
Aileron, flaps: Removal — Balancing — Reinstallation	X
Elevator: Removal — Balancing — Reinstallation	X
Rudder: Removal — Balancing — Reinstallation	X
Rudder cable: Fabrication and installation	X
Elevator pushrod: Installation	X
Safeguarding of pins, screws, castellated nuts	X
Sealing of gaps	Х
Electrical systems	
Electrical components, wiring: Removal — Installation	Х
Batteries — Servicing	Х
Avionics systems	
COM: Removal — Installation	X
NAV: Removal — Installation	Х
XPDR: Removal — Installation	Х
Antenna/antenna cable: Removal — Installation	Х
Cabin equipment/systems	
Belts/safety harnesses: Removal — Installation	Х
Oxygen system removal installation — Test	X
Canopy replacement or repair	Х
Pitot/static system: Removal — Installation — Test	Х
Flight instruments: Removal — Installation	Х
Installation of approved equipment	Х
Compass: Installation — Compensation	Х
Tow release: Removal — Installation	Х
Water ballast system: Removal — Installation — Test	Х
Undercarriage: Removal — Installation	Х
Brake system: Replacement of components	х
Fuel — Engine — Propeller — Engine — Instruments	Х

Refer to the tasks related to propeller, piston engine, fuel and control, ignition,	
engine indications and exhaust, which are contained in Table A 'Specific tasks	
for aeroplanes'	
Verification and adjustment of folding system of powered sailplanes	Х
Wooden structures/Metal tubes and fabric	
Inspection/testing for damages	X
Rib structure repair	X
Plywood skin repair	X
Recover or repair structure with fabric	X
Protective coating and finishing	X
Install patch on fabric material	X
Repair of fairings	X
Composite structures	
Laminate repair	X
Sandwich structure repair	X
Partial gel coat repair	X
Complete gel coating	X
Repair of fairings	X
Metal structures	
Crack testing	X
Repair of covering	X
Drilling cracks	X
Riveting jobs	X
Bonding of structures	X
Anti-corrosion treatment	X
Repair of fairings	X

Annex III (Part-66)

APPENDICES TO AMC TO ANNEX III
(Part-66)

## C. SPECIFIC TASKS FOR BALLOONS AND AIRSHIPS

Tasks		Balloo	n	Airs	hip
	Hot air	Gas	Tethered gas	Hot air	Gas
General activities:					
Functionality test of aircraft (*)	Х	X	X	X	Х
Placards check or replace	Х	X	Х	Х	X
Documentation annual inspection, repair, ADs, equipment (*)	Х	х	x	Х	х
Classification repair (*)	Х	X	x	X	х
Weighing:					
Weighing and weighing report (*)	х	х	x	х	Х
Servicing:					
Lubrication of controls when applicable			x	х	X
Cleaning envelope, basket, burner	Х	X	x	X	х
Inspections:					
Eight annual inspections (covering at least 3 different types) (*)	Х				
Five annual inspections (covering at least 2 different types) (*)		Х			
Three annual inspections (covering at least 2 different types) (*)			X	х	
Two annual inspections (*)					х
Strength test of envelope fabric (*)	х	x	x	х	Х
Flight control systems — Removal — Inspection	on — Reinsta	llation			
Control surface cable					X
Trim system					х
Safeguarding of pins, screws, castellated nuts (*)			x	Х	х
Stick and pedals					Х
Hydromechanical control systems			x		X
Ballonet control systems (*)			x	х	Х
Electrical control systems			x		х
Valves (gas valve, turning vent, parachute or rip panel) (*)	Х	x	х	Х	X
Control and shroud lines and pulleys	Х	х	х	Х	х
Elevator – stabilizer (incl. balancing if applicable)					X
Rudder (incl. balancing if applicable)					х
Drag rope		x			
Electrical system:					
Removal – installation of electrical wires			X	Х	х
Removal – installation of electrical components			Х	х	х
Servicing of batteries	х	х	x	Х	х
Communication system – Transponder:					
Removal – installation of COM	х	х	x	Х	х

Removal – installation of XPDR	х	х	X	Х	Х
Installation of antenna	х	х	x	х	х
Replacement of antenna cable	х	х	X	х	х
Cabin – Equipments:					
Pitot / static systems – tubes removal - installation - replacement					Х
Flight instruments removal - installation - replacement	X	X	х	Х	Х
Installation of an approved system	X	Х	x	Х	Х
Magnetic compass installation - compensation					Х
Fire extinguisher	Х			х	Х
Ballast - Replacement of:					
Water ballast (when applicable)					х
Sand/shot ballast (when applicable)		Х	x		х
Valves - inspection and rigging of valves					х
Envelope:					
Inspection and repair of envelope panels/gores/seams	Х	Х	х	Х	x
Inspection and repair of load tapes and attachment points	Х	Х	х	Х	x
Inspection and repair of deflation system	х	х		х	
Inspection and repair of net		х	X		
Inspection and repair of mooring system			X		
Electrostatic conductivity test (if type is approved for hydrogen) (*)		х			x
Ballonet inspection and repair			X		х
Inspection and fabrication of a suspension cable or rope	х	х	х	Х	x
Inspection and fabrication of a catena				X	X
Load ring/frame:					
Crack detection (welded and machined parts) (*)	х	х	х	Х	
Heater system:					
Removal, inspection and re-installation	X			Х	
Inspection and cleaning of vaporizer and filter (*)	х			х	
Inspection and replacement of hoses (*)	Х			X	
Inspection and replacement of pilot flame ignition unit (*)	х			Х	
Sealing of fittings (*)	Х			Х	
Pressure and leak test (*)	Х			Х	
Disassembly an assembly of fuel cell (*)	Х			Х	
10-year inspection of fuel cell	Х			Х	
Basket/gondola:					
Removal, inspection and re-installation (as applicable)	Х	X	х	Х	Х

Inspection and fabrication of a suspension cable or rope (*)	Х	х			
Removal – installation of padding	Х	х			
Removal – installation of belts - safety harness				X	X
Removal – installation of essential elements of the cabin	Х	х	X	х	X
Inspection and fabrication of a basket wire	х	х	X		
Inspection of operational equipment and its fixation points	Х	х	Х	X	X
Crack detection and repair (welded parts and frames)	Х	Х	х	X	X
Landing gear:					
Removal, inspection and re-installation of wheels			х	X	X
Removal, inspection and re-installation of					x
brakes					
Removal, inspection and re-installation of shock absorber					Х
Fuel – Engine – Propeller – Engine instruments	s systems:				
Refer to tasks in blocks for aeroplanes				Х	X
Wood structure:					
Structure repair	Х	Х	X		
Protective coating					
Composite structure:					
Laminate repair			X		X
Sandwich structure repair			Х		Х
Metal structures:					
Crack detection (welded and machined parts)	Х	Х	Х	X	X
Riveting jobs			v	X	X
Bonding of structures		Х	X	X	X
Anti-corrosion treatment Repair of fairings			X X	X	X
Engine:			^		^
Tasks for aeroplanes of comparable certification level				х	x
Exhaust system:					
Tasks for aeroplanes of comparable certification level				x	x
Propeller:					
Tasks for aeroplanes of comparable certification level				х	х
Fuel system:					
Tasks for aeroplanes of comparable certification level				х	х
Hydraulic system:					
Tasks for aeroplanes of comparable certification level				Х	Х



Pneumatic system:				
Tasks for aeroplanes of comparable certification level			X	Х
Winch system:				
Witness winch inspection		х		

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APPENDICES TO AMC TO ANNEX III

(Part-66)

# Appendix III — Evaluation of the competence: assessment and assessors

ED Decision 2015/029/R

This Appendix applies to the competence assessment performed by the designated assessors (and their qualifications).

#### 1) What does 'competence' mean and areas of focus for assessment

The assessment should aim at measuring the competence by evaluating three major factors associated to the learning objectives:

- Knowledge;
- Skills;
- Attitude;

Generally, knowledge is evaluated by examination. The purpose of this document is not to describe the examination process: this material mainly addresses the evaluation of 'skills' and 'attitude' after training containing practical elements. Nevertheless, the trainee needs to demonstrate to have sufficient knowledge to perform the required tasks.

'Attitude' is indivisible from the 'skill' as this greatly contributes to the safe performance of the tasks.

The evaluation of the competence should be based on the learning objectives of the training, in particular:

- the (observable) desired performance. This covers what the trainee is expected to be able to do and how the trainee is expected to behave at the end of the training;
- the (measurable) performance standard that must be attained to confirm the trainee's level of competence in the form of tolerances, constraints, limits, performance rates or qualitative statements; and
- the conditions under which the trainee will demonstrate competence. Conditions consist
  of the training methods, the environmental, situational and regulatory factors.

The assessment should focus on the competencies relevant to the aircraft type and its maintenance such as, but not limited to:

- Environment awareness (act safely, apply safety precautions and prevent dangerous situations);
- Systems integration (demonstrate understanding of aircraft systems interaction identify, describe, explain, plan, execute);
- Knowledge and understanding of areas requiring special emphasis or novelty (areas peculiar to the aircraft type, domains not covered by <u>Part-66 Appendix I</u>, practical training elements that cannot be imparted through simulation devices, etc.);
- Using reports and indications (the ability to read and interpret);
- Aircraft documentation finding and handling (identify the appropriate aircraft documentation, navigate, execute and obey the prescribed maintenance procedures);
- Perform maintenance actions (demonstrate safe handling of aircraft, engines, components and tools);

Aircraft final/close-up and report (apply close up, initiate appropriate actions/follow-up/records of testing, establish and sign maintenance records/logbooks).

#### 2) How to assess

As far as feasible, the objectives of the assessment should be associated with the learning objectives and the passing level; it means that observable criteria should be set in order to measure the performance and should remain as objective as possible.

The general characteristics of effective assessment are: objective, flexible, acceptable, comprehensive, constructive, organised and thoughtful. At the conclusion, the trainee should have no doubt about what he/she did well, what he/she did poorly and how he/she can improve.

The following is a non-exhaustive list of questions that may be posed to assist assessment:

- What are the success factors for the job?
- What are typical characteristics of a correct behaviour for the task?
- What criteria should be observed?
- What level of expertise is expected?
- Is there any standard available?
- What is the pass mark? For example:
  - 'Go-no go' situation;
  - How to allocate points? Minimum amount to succeed;
  - 'Must know or execute' versus 'Good to know or execute' versus 'Don't expect the candidate to be an expert'.
- Minimum or maximum time to achieve? Use time effectively and efficiently.
- What if the trainee fails? How many times is the trainee allowed to fail?
- When and how should the trainee be prepared for the assessment?
- What proportion of judgment by the instructor out of collaboration with the trainee is needed during the evaluation stage?

#### The assessment may be:

- diagnostic (prior to a course), formative (re-orientate the course on areas where there is a need to reinforce) or summative (partial or final evaluation);
- performed task-by-task, as a group of tasks or as a final assessment;

One method might be an initial assessment to be performed by the trainee himself, then discussing areas where the perceptions of the trainee's performance by the assessors differ in order to:

- develop the self-assessment habits;
- make the assessment more acceptable and understandable to both parties.

A 'box-ticking' exercise would be pointless. Experience has shown that assessment sheets have largely evolved over time into assessment of groups of 'skills' because in practice such things eventually detracted from the training and assessment that it was intended to serve: evaluate

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at a point of time, encourage and orientate the training needs, improve safety and ultimately qualify people for their duties.

In addition, many other aspects should be appropriately considered during the assessment process such as stress and environmental conditions, difficulty of the test, history of evaluation (such as tangible progresses or sudden and unexpected poor performance made by the trainee), amount of time necessary to build competence, etc.

All these reasons place more emphasis on the assessor and highlight the function of the organisation's approval.

#### 3) Who should assess

In order to qualify, the assessor should:

- Be proficient and have sufficient experience or knowledge in:
  - human performance and safety culture;
  - the aircraft type (necessary to have the certifying staff privileges in case of CRS issuances);
  - training/coaching/testing skills;
  - instructional tools to use;
- Understand the objective and the content of the practical elements of the training that is being assessed;
- Have interpersonal skills to manage the assessment process (professionalism, sincerity, objectivity and neutrality, analysis skills, sense of judgement, flexibility, capability of evaluating the supervisor's or instructor's reports, handling of trainee's reactions to failing assessment with the cultural environment, being constructive, etc.);
- Be ultimately designated by the organisation to carry out the assessment.

The roles may be combined for:

- the assessor and the instructor for the practical elements of the Type Rating Training; or
- the assessor and the supervisor for the On-the-Job Training.

provided that the objectives associated to each role are clearly understood and that the competence and qualification criteria according to the company's procedures are met for both functions. Whenever possible (depending on the size of the organisation), it is recommended to split the roles (two different persons) in order to avoid any conflicts of interests.

When the functions are not combined, the role of each function should be clearly understood.



## **ANNEX IV (PART-147)**

## **GENERAL**

## 147.1

Regulation (EU) No 1321/2014

For the purpose of this Part, the competent authority shall be:

- 1. for the organisations having their principle place of business located in the territory of a Member State, the authority designated by that Member State;
- 2. for the organisations having their principle place of business located in a third country, the Agency.

## **AMC 147.1**

ED Decision 2015/029/R

A competent authority may be a ministry, a national aviation authority, or any aviation body designated by the Member State and located within that Member State. A Member State may designate more than one competent authority to cover different areas of responsibility, as long as the designation decision contains a list of the competencies of each authority and there is only one competent authority responsible for each given area.



## **SECTION A — TECHNICAL REQUIREMENTS**

## SUBPART A — GENERAL

## 147.A.05 Scope

Regulation (EU) No 1321/2014

This section establishes the requirements to be met by organisations seeking approval to conduct training and examination as specified in <u>Annex III (Part-66)</u>.

## **147.A.10** General

Regulation (EU) No 1321/2014

A training organisation shall be an organisation or part of an organisation registered as a legal entity.

## GM to 147.A.10 General

ED Decision 2015/029/R

Such an organisation may conduct business from more than one address and may hold more than one Part approval.

## 147.A.15 Application

Regulation (EU) No 1321/2014

- (a) An application for an approval or for the change of an existing approval shall be made on a form and in a manner established by the competent authority.
- (b) An application for an approval or change to an approval shall include the following information:
  - 1. the registered name and address of the applicant;
  - 2. the address of the organisation requiring the approval or change to the approval;
  - 3. the intended scope of approval or change to the scope of approval;
  - 4. the name and signature of the accountable manager;
  - 5. the date of application.

# **AMC 147.A.15 Application**

ED Decision 2015/029/R

The application form should contain the information required in the EASA Form 12.



## **SUBPART B — ORGANISATIONAL REQUIREMENTS**

# 147.A.100 Facility requirements

Regulation (EU) No 1321/2014

- (a) The size and structure of facilities shall ensure protection from the prevailing weather elements and proper operation of all planned training and examination on any particular day.
- (b) Fully enclosed appropriate accommodation separate from other facilities shall be provided for the instruction of theory and the conduct of knowledge examinations.
  - 1. The maximum number of students undergoing knowledge training during any training course shall not exceed 28.
  - 2. The size of accommodation for examination purposes shall be such that no student can read the paperwork or computer screen of any other student from his/her position during examinations.
- (c) The point (b) accommodation environment shall be maintained such that students are able to concentrate on their studies or examination as appropriate, without undue distraction or discomfort.
- (d) In the case of a basic training course, basic training workshops and/or maintenance facilities separate from training classrooms shall be provided for practical instruction appropriate to the planned training course. If, however, the organisation is unable to provide such facilities, arrangements may be made with another organisation to provide such workshops and/or maintenance facilities, in which case a written agreement shall be made with such organisation specifying the conditions of access and use thereof. The competent authority shall require access to any such contracted organisation and the written agreement shall specify this access.
- (e) In the case of an aircraft type/task training course, access shall be provided to appropriate facilities containing examples of aircraft type as specified in point <a href="147.A.115(d">147.A.115(d)</a>.
- (f) The maximum number of students undergoing practical training during any training course shall not exceed 15 per supervisor or assessor.
- (g) Office accommodation shall be provided for instructors, knowledge examiners and practical assessors of a standard to ensure that they can prepare for their duties without undue distraction or discomfort.
- (h) Secure storage facilities shall be provided for examination papers and training records. The storage environment shall be such that documents remain in good condition for the retention period as specified in point <u>147.A.125</u>. The storage facilities and office accommodation may be combined, subject to adequate security.
- (i) A library shall be provided containing all technical material appropriate to the scope and level of training undertaken.

## AMC 147.A.100(i) Facility requirements

ED Decision 2015/029/R

For approved basic maintenance training courses this means holding and ensuring reasonable
access to copies of all Parts and national aviation legislation, examples of typical aircraft
maintenance manuals and service bulletins, Airworthiness Directives, aircraft and component
records, release documentation, procedures manuals and aircraft maintenance programmes.

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SECTION A — TECHNICAL
REQUIREMENTS

2. Except for the Parts and national aviation regulations, the remainder of the documentation should represent typical examples for both large and small aircraft and cover both aeroplanes and helicopters as appropriate. Avionic documentation should cover a representative range of available equipment. All documentation should be reviewed and updated on a regular basis.

## GM to 147.A.100(i) Facility requirements

ED Decision 2015/029/R

Where the organisation has an existing library of regulations, manuals and documentation required by another Part, it is not necessary to duplicate such a facility subject to student access being under controlled supervision.

## 147.A.105 Personnel requirements

Regulation (EU) No 1321/2014

(a) The organisation shall appoint an accountable manager who has corporate authority for ensuring that all training commitments can be financed and carried out to the standard required by this Part.

Regulation (EU) No 1321/2014

(b) A person or group of persons, whose responsibilities include ensuring that the maintenance training organisation is in compliance the requirements of this Part, shall be nominated. Such person(s) must be responsible to the accountable manager. The senior person or one person from the group of persons may also be the accountable manager subject to meeting the requirements for the accountable manager as defined in point (a).

Regulation (EU) No 1321/2014

(c) The maintenance training organisation shall contract sufficient staff to plan/perform knowledge and practical training, conduct knowledge examinations and practical assessments in accordance with the approval.

Regulation (EU) No 1321/2014

(d) By derogation to point (c), when another organisation is used to provide practical training and assessments, such other organisation's staff may be nominated to carry out practical training and assessments.

Regulation (EU) No 1321/2014

(e) Any person may carry out any combination of the roles of instructor, examiner and assessor, subject to compliance with point (f).

Regulation (EU) No 1321/2014

(f) The experience and qualifications of instructors, knowledge examiners and practical assessors shall be established in accordance with criteria published or in accordance with a procedure and to a standard agreed by the competent authority.

Regulation (EU) No 1321/2014

(g) The knowledge examiners and practical assessors shall be specified in the organisation exposition for the acceptance of such staff.

Regulation (EU) No 1321/2014

(h) Instructors and knowledge examiners shall undergo updating training at least every 24 months relevant to current technology, practical skills, human factors and the latest training techniques appropriate to the knowledge being trained or examined.



## **AMC 147.A.105 Personnel requirements**

ED Decision 2015/029/R

- 1. The larger maintenance training organisation (an organisation with the capacity to provide training for 50 students or more) should appoint a training manager with the responsibility of managing the training organisation on a day-to-day basis. Such person could also be the accountable manager. In addition, the organisation should appoint a quality manager with the responsibility of managing the quality system as specified in paragraph <a href="147.A.130(b)">147.A.130(b)</a> and an examination manager with the responsibility of managing the relevant <a href="Part-147 Subpart C">Part-147 Subpart C</a> or Subpart D examination system. Such person(s) may also be an instructor and/or examiner.
- 2. The smaller maintenance training organisation (an organisation with the capacity to provide training for less than 50 students) may combine any or all of the sub-paragraph (1) positions subject to the competent authority verifying and being satisfied that all functions can be properly carried out in combination.
- 3. When the organisation is also approved against other Parts which contain some similar functions then such functions may be combined.

## AMC 147.A.105(b) Personnel requirements

ED Decision 2015/029/R

With the exception of the accountable manager, an <u>EASA Form 4</u> should be completed for each person nominated to hold a position required by <u>147.A.105(b)</u>. An example of an <u>EASA Form 4</u> is included in Appendix II to AMC.

## GM to 147.A.105(c) Personnel requirements

ED Decision 2015/029/R

The maintenance training organisation should have a nucleus of permanently employed staff to undertake the minimum amount of maintenance training proposed but may contract, on a part-time basis, instructors for subjects which are only taught on an occasional basis.

## AMC 147.A.105(f) Personnel requirements

ED Decision 2015/029/R

Any person currently accepted by the competent authority in accordance with the national aviation regulations in force prior to Part-147 coming into force may continue to be accepted in accordance with  $\underline{147.A.105(f)}$ .

Paragraph 3 of <u>Appendix III to AMC to Part-66</u> provides criteria to establish the qualification of assessors

# GM to 147.A.105(f) Personnel requirements

ED Decision 2015/029/R

It is recommended that potential instructors be trained in instructional techniques.

## GM to 147.A.105(g) Personnel requirements

ED Decision 2015/029/R

Examiners should demonstrate a clear understanding of the examination standard required by <u>Part-66</u> and have a responsible attitude to the conduct of examinations such that the highest integrity is ensured.

## AMC 147.A.105(h) Personnel requirements

ED Decision 2015/029/R

Updating training should normally be of 35 hours duration but may be adjusted to the scope of training of the organisation and particular instructor/examiner.

## GM to 147.A.105(h) Personnel requirements

ED Decision 2015/029/R

- 1. Records should show for each instructor/examiner when the updating training was scheduled and when it took place.
- 2. The updating training may be subdivided during the 24 months into more than one element and may include such activities as attendance at relevant lectures and symposiums.

## 147.A.110 Records of instructors, examiners and assessors

Regulation (EU) No 1321/2014

- (a) The organisation shall maintain a record of all instructors, knowledge examiners and practical assessors. These records shall reflect the experience and qualification, training history and any subsequent training undertaken.
- (b) Terms of reference shall be drawn up for all instructors, knowledge examiners and practical assessors.

## AMC 147.A.110 Records of instructors, examiners and assessors

ED Decision 2015/029/F

- 1. The following minimum information relevant to the scope of activity should be kept on record in respect of each instructor, knowledge examiner and practical assessor:
  - (a) Name
  - (b) Date of Birth
  - (c) Personnel Number
  - (d) Experience
  - (e) Qualifications
  - (f) Training history (before entry)
  - (g) Subsequent Training
  - (h) Scope of activity
  - (i) Starting date of employment/contract
  - (j) If appropriate ending date of employment/contract.

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- 2. The record may be kept in any format but should be under the control of the organisations quality system.
- 3. Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.
- 4. The competent authority is an authorised person when investigating the records system for initial and continued approval or when the competent authority has cause to doubt the competence of a particular person.

## GM to 147.A.110 Records of instructors, examiners and assessors

ED Decision 2015/029/R

Instructors, knowledge examiners and practical assessors should be provided with a copy of their terms of reference.

## 147.A.115 Instructional equipment

Regulation (EU) No 1321/2014

- (a) Each classroom shall have appropriate presentation equipment of a standard that ensures students can easily read presentation text/drawings/diagrams and figures from any position in the classroom.
  - Presentation equipment shall include representative synthetic training devices to assist students in their understanding of the particular subject matter where such devices are considered beneficial for such purposes.
- (b) The basic training workshops and/or maintenance facilities as specified in point <a href="mailto:147.A.100(d">147.A.100(d)</a> must have all tools and equipment necessary to perform the approved scope of training.
- (c) The basic training workshops and/or maintenance facilities as specified in point <a href="mailto:147.A.100(d)">147.A.100(d)</a> must have an appropriate selection of aircraft, engines, aircraft parts and avionic equipment.
- (d) The aircraft type training organisation as specified in point <a href="147.A.100(e)">147.A.100(e)</a> must have access to the appropriate aircraft type. Synthetic training devices may be used when such synthetic training devices ensure adequate training standards.

## GM to 147.A.115(a) Instructional equipment

ED Decision 2015/029/R

- 1. Synthetic training devices are working models of a particular system or component and include computer simulations.
- 2. A synthetic training device is considered beneficial for complex systems and fault diagnostic purposes.

## AMC 147.A.115(c) Instructional equipment

ED Decision 2015/029/R

 An appropriate selection of aircraft parts means appropriate in relation to the particular subject module or sub-module of <u>Part-66</u> being instructed. For example the turbine engine module should require the provision of sufficient parts from different types of turbine engine to show

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- what such parts look like, what the critical areas are from a maintenance viewpoint and to enable disassembly/assembly exercises to be completed.
- 2. Appropriate aircraft, engines, aircraft parts and avionic equipment means appropriate in relation to the particular subject module or sub-module of <u>Part-66</u> being instructed. For example category B2 avionic training should require amongst other equipment, access to at least one type of installed autopilot and flight director system such that maintenance and system functioning can be observed and therefore more fully understood by the student in the working environment.
- 3. 'Access' may be interpreted to mean, in conjunction with the facilities requirement of <a href="147.A.100(d">147.A.100(d)</a>, that there may be an agreement with a maintenance organisation approved under <a href="Part-145">Part-145</a> to access such parts, etc.

## 147.A.120 Maintenance training material

Regulation (EU) No 1321/2014

- (a) Maintenance training course material shall be provided to the student and cover as applicable:
  - 1. the basic knowledge syllabus specified in <a href="Annex III">Annex III (Part-66)</a> for the relevant aircraft maintenance licence category or subcategory and,
  - 2. the type course content required by <u>Annex III (Part-66)</u> for the relevant aircraft type and aircraft maintenance licence category or subcategory.
- (b) Students shall have access to examples of maintenance documentation and technical information of the library as specified in point 147.A.100(i).

## AMC 147.A.120(a) Maintenance training material

ED Decision 2015/029/R

Training course notes, diagrams and any other instructional material should be accurate. Where an amendment service is not provided, a written warning to this effect should be given.

## 147.A.125 Records

Regulation (EU) No 1321/2014

The organisation shall keep all student training, examination and assessment records for *an unlimited* period.

## 147.A.130 Training procedures and quality system

Regulation (EU) No 1321/2014

- (a) The organisation shall establish procedures acceptable to the competent authority to ensure proper training standards and compliance with all relevant requirements in this Part.
- (b) The organisation shall establish a quality system including:
  - an independent audit function to monitor training standards, the integrity of knowledge examinations and practical assessments, compliance with and adequacy of the procedures, and
  - 2. a feedback system of audit findings to the person(s) and ultimately to the accountable manager referred to in point <a href="147.A.105(a)">147.A.105(a)</a> to ensure, as necessary, corrective action.

## AMC 147.A.130(a) Training procedures and quality system

ED Decision 2020/002/R

This guidance material provides some clarifications for the incorporation of new training methods and training technologies in the procedures for aircraft maintenance training.

The classic training method is a teacher lecturing the pupils in a classroom. Commonly the training tools are a blackboard and training manuals. New technologies make it possible to develop new training methods and use other training tools, e.g. multimedia-based training and virtual reality. A combination of several training methods/tools is recommended in order to increase the overall effectiveness of the training.

Simulation cannot be eligible as a sole training or assessment tool for basic hand skills such as wiring, welding, drilling, filing, wire locking, riveting, bonding or any other skill where competence may only be achievable by performing a hands-on activity.

Three tables are provided to illustrate the possibilities for the use of different training methods and tools:

Table 1: Training tools

Table 2: Training methods

Table 3: Combination of training methods and tools and their use

Table 1 lists existing training tools that may be selected for basic training.

Table 1: Training tools

	Training tools	Description
1	Slideshow presentation	A structured presentation of slides.
2	Manuals	Comprehensive and controlled publication of a particular topic.
3	Computer (desktop PC, laptop, etc.)	An electronic processing device that can hold and display information in various media.
4	Mobile devices (such as, but not limited to, tablets, smart phones, etc.)	A mobile electronic processing device that can hold and display information in various media.
5	Videos	Electronic media for broadcasting moving visual images.
6	MSTD — Maintenance simulation training device	A training device that is intended to be used in maintenance training, examination, and/or assessment for a component, system or entire aircraft. The MSTD may consist of hardware and software elements.
7	Mock-up	A scaled or full-size replica of a component, system or entire aircraft that preserves (i.e. is an exact replica of) the geometrical, operational or functional characteristics of the real component, system or entire aircraft for which maintenance training is delivered with the use of such a replica.
8	Virtual reality	A computer-generated three-dimensional (3D) environment which can be explored and possibly interacted with.
9	MTD — Maintenance training device	Maintenance training device is any training device other than an MSTD used for maintenance training and/or examination and/or assessment. It may include mock-ups.



Training tools	Description
Real aircraft	A suitable aircraft whose condition allows teaching a selection of maintenance tasks that are representative of the particular aircraft or of the aircraft category.  'Suitable' means an aircraft of the type or licence (sub)category (if the licence (sub)category aircraft is outfitted with the same equipment subject to the particular lesson module(s) and is sufficiently similar so that the lesson objective(s) can be satisfactorily accomplished) for type training, or an aircraft representative of the licence (sub)category for basic training, and excludes 'virtual aircraft'.  'Condition' means that the aircraft is equipped with its main components and that the systems can be activated/operated when this is required by the learning objectives.
Aircraft component	A suitable aircraft component used to teach specific maintenance tasks off-the-wing. This may include but is not limited to tasks such as borescope inspections, minor repairs, testing, or the assembly/disassembly of sub-components. 'Suitable' means that the condition of the component should fit the learning objectives of the tasks and, when appropriate, may feature existing defects or damages.
Augmented reality	An enhancement (modification, enrichment, alteration or manipulation) of one's current perception of reality elements of a physical, real-world environment following user's inputs picked up by sensors transferred to rapid streaming computer images. By contrast, virtual reality replaces the real world with a simulated one.
Embedded training	A maintenance training function that is originally integrated into the aircraft component's design (i.e. a centralised fault display system).
Classroom	A physical, appropriate location where learning takes place.
Virtual classroom	A simulated, not physical, location where synchronous learning takes place.
Virtual aircraft	A simulated, not physical, aircraft that may be used in theoretical training, practical training, examination or assessment.
	Aircraft component  Augmented reality  Embedded training  Classroom  Virtual classroom

Note: Synthetic training devices (STDs) is a generic term used for systems using hardware and/or software, simulating the behaviour of one or more aircraft systems or a complete aircraft, such as maintenance simulation training devices (MSTDs), maintenance training devices (MTDs) and <a href="flight simulation training devices">flight simulation training devices (FSTDs)</a>.

Table 2 lists existing training methods that may be selected for basic training.

Table 2: Training methods

Training method	Description	Instructor -centred <sup>(1)</sup>	Student- centred <sup>(2)</sup>	Blended training <sup>(3)</sup>
Assisted learning (mentoring)	Assisted learning or mentorship represents an ongoing, close relationship of dialogue and learning between an experienced /knowledgeable instructor and a less experienced/knowledgeable student in order to develop experience/knowledge of students.	X	X	Х
Computer- based training (CBT)	CBT is any interactive means of structured training using a computer to deliver a content. (Note: Not to be confused with competency-based training that also uses the acronym 'CBT')	X	X	Х

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Training method	Description	Instructor -centred <sup>(1)</sup>	Student- centred <sup>(2)</sup>	Blended training <sup>(3)</sup>
Demonstration	A method of teaching by example rather than explanation.	X		X
Distance learning asynchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is asynchronous if the teacher and the students do not interact at the same time.		X	Х
Distance learning synchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is synchronous if the teacher and the students interact at the same time (real time).	X		Х
e-learning	Training via a network or electronic means, with or without the support of instructors (e-tutors).	Х	X	X
Lecturing (instructor- led/face to face)	Practice of face-to-face delivery of training and learning material between an instructor and students, either individuals or groups.	X		X
Mobile learning (M-learning)	Any sort of learning that happens when the student is not at a fixed, predetermined location, using mobile technologies.	X	X	X
Multimedia- based training <sup>(4)</sup>	Any combined use of different training media.	X	X	X
Simulation	Any type of training that uses a simulator imitating a real-world process or system.	X	X	X
Web-based training (WBT)	Generic term for training or instruction delivered over the internet or an intranet using a web browser.	X	Х	X

Note: The purpose of this table is to provide a short definition for each associated training method and to relate each method to the focus of the learning. It is not meant to comprehensively explore and identify the capabilities of each training method herein included.

- (1) 'Instructor-centred' means that the instructor is responsible for teaching the student.
- (2) 'Student-centred' means that the student is responsible for the learning progress.
- (3) 'Blended training' includes different instructional methods and tools, different delivery methods, different scheduling (synchronous/asynchronous) or different levels of guidance. Blended training allows the integration of a range of learning opportunities.
- (4) 'Multimedia-based training' by definition uses various media to achieve its objective, thus, none of the single media listed is per se a complete solution for training.

Table 3 presents the combination of training methods and tools that may be taken into account for theoretical and practical training.

The table is intended to support potential delivery methods. Additional training methods and further use of those methods could be acceptable to the competent authority when demonstrated as supporting learning objectives.



#### Table 3 Combination of training methods and tools and their use

Training method	Training tools	Theoretical elements		Practical	ical OJT Learning object		ctives		
See Table 2	See Table 1	Level 1	Level 2	Level 3	elements		Knowledge	Skills	Attitude
Lecturing (instructor-led /face to face)	1,2,3,5,6,7,8,9, 10 11,12,13,14,16	Х	Х	Х	Х	X Only type	х	х	X Only type
Assisted learning (mentoring)	1,2,3,5,6,7,8,9, 10,11,12,13,14, 15,16	Х	Х	Х	X	X Only type	X	х	X Only type
e-learning	1,2,3,4,5,8,12, 14,15,16	X	X	X <sup>(1)</sup>	X <sup>(1)</sup>		Х	X <sup>(1)</sup>	X <sup>(1)</sup>
Computer-based training	1,2,3,4,5,8,12, 14,15,16	Х	Х	Х	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup>	
Multimedia- based training	1,2,3,4,5,8,12, 13,14,15,16	Х	Х	Х	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup>	X <sup>(1)</sup>
Web-based training (WBT)	1,2,3,4,5,8,12, 14,15,16	X	Х	X <sup>(1)</sup>	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup> Only type	X <sup>(1)</sup>
M-learning	1,2,3,4,5,12,15, 16	X	Х	X <sup>(1)</sup>	X <sup>(1)</sup>		X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	
Distance learning synchronous	1,2,3,4,5,8,15, 16	Х	Х	X <sup>(1)</sup>	X <sup>(1)</sup>		X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	X <sup>(1)</sup> Only type
Distance learning asynchronous	1,2,3,4,5,8,16	Х	Х	X <sup>(1)</sup>			X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	X <sup>(1)</sup> Only type
Demonstration	1,2,3,5,6,7,8,9, 10,11,12,13,14, 15,16	х	X	X <sup>(1)</sup>	X	X <sup>(1)</sup> Only type	X	x	X <sup>(1)</sup> Only type
Simulation	1,3,4,6,7,8,9, 10,12,14, 15 <sup>(1)</sup> , 16	Х	Х	X <sup>(1)</sup>	X		X	x	X Only type

This table relates a given training method to a list of acceptable training tools (code), oriented to deliver the theoretical elements, practical elements or on-the-job training associated with their specific learning objectives.

(1) Limited suitability. It means that the respective training method may be used but with limited results, thus requiring the support of a complementary training method to fulfil the learning objectives. NOTE: Instructor (human) involvement should be considered in Basic Knowledge Modules 9A/9B.

## AMC 147.A.130(b) Training procedures and quality system

ED Decision 2015/029/R

- 1. The independent audit procedure should ensure that all aspects of <a href="Part-147">Part-147</a> compliance should be checked at least once in every 12 months and may be carried out as one complete single exercise or subdivided over a 12-month period in accordance with a scheduled plan.
- 2. In a small maintenance training organisation the independent audit function may be contracted to another maintenance training organisation approved under <a href="Part-147">Part-147</a> or a competent person acceptable to the competent authority. Where the small training organisation chooses to

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- contract the audit function it is conditional on the audit being carried out twice in every 12 month period with one such audit being unannounced.
- 3. Where the maintenance training organisation is also approved to another Part requiring a quality system, then such quality systems may be combined.
- 4. When training or examination is carried out under the sub-contract control system:
  - (i) a pre audit procedure should be established whereby the Part-147 approved maintenance training organisation' should audit a prospective sub-contractor to determine whether the services of the sub-contractor meet the intent of Part-147.
  - (ii) a renewal audit of the subcontractor should be performed at least once every 12 months to ensure continuous compliance with the <a href="Part-147">Part-147</a> standard.
  - (iii) the sub-contract control procedure should record audits of the sub-contractor and to have a corrective action follow-up plan.
- 5. The independence of the audit system should be established by always ensuring that audits are carried out by personnel not responsible for the function or procedure being checked.

## GM to 147.A.130(b) Training procedures and quality system

ED Decision 2015/029/R

- 1. The primary objective of the quality system is to enable the training organisation to satisfy itself that it can deliver properly trained students and that the organisation remains in compliance with <a href="Part-147">Part-147</a>.
- 2. The independent audit is a process of routine sample checks of all aspects of the training organisation's ability to carry out all training and examinations to the required standards. It represents an overview of the complete training system and does not replace the need for instructors to ensure that they carry out training to the required standard.
- 3. A report should be raised each time an audit is carried out describing what was checked and any resulting findings. The report should be sent to the affected department(s) for rectification action giving target rectification dates. Possible rectification dates may be discussed with the affected department(s) before the quality department confirms such dates on the report. The affected department(s) should rectify any findings and inform the quality department of such rectification.
- 4. A large training organisation (an organisation with the capacity to provide training for 50 students or more) should have a dedicated quality audit group whose sole function is to conduct audits, raise finding reports and follow up to ensure that findings are being rectified. For the small training organisation (an organisation with the capacity to provide training for less than 50 students) it is acceptable to use competent personnel from one section/department not responsible for the function or procedure to check the section/department that is responsible subject to the overall planning and implementation being under the control of the quality manager.
- 5. The management control and follow up system should not be contracted to outside persons. The principal function is to ensure that all findings resulting from the independent audit are corrected in a timely manner and to enable the accountable manager to remain properly informed of the state of compliance. Apart from rectification of findings the accountable manager should hold routine meetings to check progress on rectification except that in the large training organisation such meetings may be delegated on a day to day basis to the quality

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manager as long as the accountable manager meets at least once per year with the senior staff involved to review the overall performance.

### 147.A.135 Examinations

Regulation (EU) No 1321/2014

- (a) The examination staff shall ensure the security of all questions.
- (b) Any student found during a knowledge examination to be cheating or in possession of material pertaining to the examination subject other than the examination papers and associated authorised documentation shall be disqualified from taking the examination and may not take any examination for at least 12 months after the date of the incident. The competent authority shall be informed of any such incident together with the details of any enquiry within one calendar month.
- (c) Any examiner found during a knowledge examination to be providing question answers to any student being examined shall be disqualified from acting as an examiner and the examination declared void. The competent authority must be informed of any such occurrence within one calendar month.

### **AMC 147.A.135 Examinations**

ED Decision 2015/029/F

- 1. Examinations may be computer- or hard-copy-based or a combination of both.
- 2. The actual questions to be used in a particular examination should be determined by the examiners.

## GM to 147.A.135 Examinations

ED Decision 2015/029/R

The competent authority will determine when or if the disqualified examiner may be reinstated.

## 147.A.140 Maintenance training organisation exposition

Regulation (EU) No 1321/2014

- (a) The organisation shall provide an exposition for use by the organisation describing the organisation and its procedures and containing the following information:
  - a statement signed by the accountable manager confirming that the maintenance training organisation exposition and any associated manuals define the maintenance training organisation's compliance with this Part and shall be complied with at all times.
  - 2. the title(s) and name(s) of the person(s) nominated in accordance with point 147.A.105(b).
  - 3. the duties and responsibilities of the person(s) specified in point 2, including matters on which they may deal directly with the competent authority on behalf of the maintenance training organisation.
  - 4. a maintenance training organisation chart showing associated chains of responsibility of the person(s) specified in point (a)(2).
  - 5. a list of the training instructors, knowledge examiners and practical assessors.

- 6. a general description of the training and examination facilities located at each address specified in the maintenance training organisation's approval certificate, and if appropriate any other location, as required by point 147.A.145(b).
- 7. a list of the maintenance training courses which form the extent of the approval.
- 8. the maintenance training organisation's exposition amendment procedure.
- 9. the maintenance training organisation's procedures, as required by point 147.A.130(a).
- 10. the maintenance training organisation's control procedure, as required by <a href="147.A.145(c">147.A.145(c</a>), when authorised to conduct training, examination and assessments in locations different from those specified in point <a href="147.A.145(b">147.A.145(b</a>).
- 11. a list of the locations pursuant to point 147.A.145(b).
- 12. a list of organisations, if appropriate, as specified in point 147.A.145(d).
- (b) The maintenance training organisation's exposition and any subsequent amendments shall be approved by the competent authority.
- (c) Notwithstanding point (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

### AMC 147.A.140 Maintenance training organisation exposition

D Decision 2015/029/R

- 1. A recommended format of the exposition is included in Appendix I.
- 2. When the maintenance training organisation is approved in accordance with any other Part which also requires an exposition, the exposition required by the other Part may form the basis of the maintenance training organisation exposition in a combined document, as long as the other exposition contains the information required by <a href="147.A.140">147.A.140</a> and a cross reference index is included based upon Appendix I.
- 3. When training or examination is carried out under the sub-contract control system the maintenance training organisation exposition should contain a specific procedure on the control of sub-contractors as per Appendix 1 item 2.18 plus a list of sub-contractors as required by 147.A.140(a)12 and detailed in Appendix I item 1.7.
- 4. The competent authority may approve a delegated exposition approval system for all changes other than those affecting the approval.

## 147.A.145 Privileges of the maintenance training organisation

Regulation (EU) 2018/1142

- (a) The maintenance training organisation may carry out the following as permitted by and in accordance with the maintenance training organisation exposition:
  - (i) basic training courses to the Annex III (Part-66) syllabus, or part thereof;
  - (ii) aircraft type/task training courses in accordance with Annex III (Part-66);
  - (iii) the examination of students who attended the basic or aircraft type training course at the maintenance training organisation;
  - (iv) the examination of students who did not attend the aircraft type training course at the maintenance training organisation;

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- (v) the examination of students who did not attend the basic training course at the maintenance training organisation, provided that:
  - (1) the examination is conducted at one of the locations identified in the approval certificate, or
  - (2) if performed at locations not identified in the approval certificate, as permitted by points (b) and (c), either
    - the examination is provided through a European Central Question Bank (ECQB), or
    - in the absence of an ECQB, the competent authority selects the questions for the examination;
- (vi) the issue of certificates in accordance with Appendix III following successful completion of the approved basic or aircraft type training courses and examinations specified in points (a)(i), (a)(ii), (a)(iii), (a)(iv) and (a)(v), as applicable.
- (b) Training, knowledge examinations and practical assessments may only be carried out at the locations identified in the approval certificate and/or at any location specified in the maintenance training organisation exposition.
- (c) By derogation to point (b), the maintenance training organisation may only conduct training, knowledge examinations and practical assessments in locations different from the point (b) locations in accordance with a control procedure specified in the maintenance training organisation exposition. Such locations need not be listed in the maintenance training organisation exposition.
- (d) 1. The maintenance training organisation may subcontract the conduct of basic theoretical training, type training and related examinations to a non maintenance training organisation only when under the control of the maintenance training organisation quality system.
  - 2. The subcontracting of basic theoretical training and examination is limited to Annex III (Part-66), Appendix I, Modules 1, 2, 3, 4, 5, 6, 8, 9 and 10.
  - 3. The subcontracting of type training and examination is limited to powerplant and avionic systems.
- (e) An organisation may not be approved to conduct examinations unless approved to conduct the corresponding training.
- (f) By derogation from point (e), an organisation approved to provide basic knowledge training or type training may also be approved to provide type examination in the cases where type training is not required.

# AMC 147.A.145(d) Privileges of the maintenance training organisation

ED Decision 2015/029/R

1. When training or examination is carried out under the sub-contract control system it means that for the duration of such training or examination, the <a href="Part-147">Part-147</a> approval has been temporarily extended to include the sub-contractor. It therefore follows that those parts of the sub-contractor's facilities, personnel and procedures involved with the <a href="Part-147">Part-147</a> approved maintenance training organisation's students should meet requirements of <a href="Part-147">Part-147</a> for the

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- duration of that training or examination and it remains the <u>Part-147</u> organisation's responsibility to ensure such requirements are satisfied.
- 2. The maintenance training organisation approved under Part-147 is not required to have complete facilities and personnel for training that it needs to sub-contract but it should have its own expertise to determine that the sub-contractor meets the Part-147 standards. Particular attention should be given to ensuring that the training that is delivered also meets the requirements of <a href="Part-66">Part-66</a> and the aircraft technologies are appropriate.
- 3. The contract between the maintenance training organisation approved under Part-147 and the sub-contractor should contain:
  - a provision for the Agency and the competent authority to have right of access to the sub-contractor;
  - a provision for the sub-contractor to inform the Part-147 approved maintenance training organisation of any change that may affect its Part-147 approval, before any such change takes place.

# GM 147.A.145(d) Privileges of the maintenance training organisation

ED Decision 2015/029/R

- 1. The pre audit procedure should focus on establishing compliance with the training and examination standards set out in <a href="Part-147">Part-147</a> and <a href="Part-147">Part-147</a> and <a href="Part-147">Part-147</a>
- The fundamental reason for allowing a maintenance training organisation approved under <u>Part-147</u> to sub-contract certain basic theoretical training courses is to permit the approval of maintenance training organisations, which may not have the capacity to conduct training courses on all <u>Part-66</u> modules.
- 3. The reason for allowing the subcontracting of training modules 1 to 6 and 8 to 10 only is, most of the related subjects can generally also be taught by training organisations not specialised in aircraft maintenance and the practical training element as specified in 147.A.200 does not apply to them. On the contrary, training modules 7 and 11 to 17 are specific to aircraft maintenance and include the practical training element as specified in 147.A.200. The intent of the 'limited subcontracting' option as specified in 147.A.145 is to grant Part-147 approvals only to those organisations having themselves at least the capacity to teach on aircraft maintenance specific matters.

# GM 147.A.145(d)3 Privileges of the maintenance training organisation

ED Decision 2015/029/R

In the case of type training and examination, the reason for allowing only subcontracting to powerplant and avionic systems is that the related subjects can generally also be imparted by certain organisations specialised in these domains such as the Type Certificate Holder of the powerplant or the OEMs of these avionics systems. In such a case, the type training course should make clear how the interfaces with the airframe are addressed and by whom (the subcontracted organisation or the Part-147 organisation itself).

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# AMC 147.A.145(f) Privileges of the maintenance training organisation

ED Decision 2015/029/R

When an organisation approved to provide basic knowledge training or type training is also approved to provide type examination in the cases where type training is not required, appropriate procedures in the MTOE should be developed and approved, including:

- The development and the conduct of the type examination;
- The qualification of the examiners and their currency.

In particular, emphasis should be put when such an examination is not regularly conducted or when the examiners are not normally involved in aircraft or activities with technology corresponding to the aircraft type subject to examination. An example would be the case of an organisation providing basic knowledge training only for the B1.1 license. This organisation should justify how they run type examinations for single piston-engine helicopters in the case of a B1.4 licence.

## 147.A.150 Changes to the maintenance training organisation

Regulation (EU) No 1321/2014

- (a) The maintenance training organisation shall notify the competent authority of any proposed changes to the organisation that affect the approval before any such change takes place, in order to enable the competent authority to determine continued compliance with this Part and to amend if necessary the maintenance training organisation approval certificate.
- (b) The competent authority may prescribe the conditions under which the maintenance training organisation may operate during such changes unless the competent authority determines that the maintenance training organisation approval must be suspended.
- (c) Failure to inform the competent authority of such changes may result in suspension or revocation of the maintenance training organisation approval certificate backdated to the actual date of the changes.

## 147.A.155 Continued validity

Regulation (EU) No 1321/2014

- (a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:
  - 1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified in point <a href="147.8.130">147.8.130</a>; and
  - 2. the competent authority being granted access to the organisation to determine continued compliance with this <a href="Annex (Part-147">Annex (Part-147)</a>; and
  - 3. the certificate not being surrendered or revoked.
- (b) Upon surrender or revocation, the approval shall be returned to the competent authority.

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## **147.A.160** Findings

Regulation (EU) No 1321/2014

- (a) A level 1 finding is one or more of the following:
  - 1. any significant non-compliance with the examination process which would invalidate the examination(s),
  - 2. failure to give the competent authority access to the organisation's facilities during normal operating hours after two written requests,
  - 3. the lack of an accountable manager,
  - 4. a significant non-compliance with the training process.
- (b) A level 2 finding is any non-compliance with the training process other than level 1 findings.
- (c) After receipt of notification of findings according to point 147.8.130, the holder of the maintenance training organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.



### SUBPART C — APPROVED BASIC TRAINING COURSE

## 147.A.200 The approved basic training course

Regulation (EU) No 1321/2014

- (a) The approved basic training course shall consist of knowledge training, knowledge examination, practical training and a practical assessment.
- (b) The knowledge training element shall cover the subject matter for a category or subcategory aircraft maintenance licence as specified in <a href="Annex III">Annex III</a> (Part-66).
- (c) The knowledge examination element shall cover a representative cross section of subject matter from the point (b) training element.
- (d) The practical training element shall cover the practical use of common tooling/equipment, the disassembly/assembly of a representative selection of aircraft parts and the participation in representative maintenance activities being carried out relevant to the particular <a href="Part-66">Part-66</a> complete module.
- (e) The practical assessment element shall cover the practical training and determine whether the student is competent at using tools and equipment and working in accordance with maintenance manuals.
- (f) The duration of basic training courses shall be in accordance with Appendix I.
- (g) The duration of conversion courses between (sub)categories shall be determined through an assessment of the basic training syllabus and the related practical training needs.

## AMC 147.A.200(b) The approved basic training course

ED Decision 2015/029/R

Each licence category or subcategory basic training course may be subdivided into modules or submodules of knowledge and may be intermixed with the practical training elements subject to the required time elements of 147.A.200(f) and (g) being satisfied.

## AMC 147.A.200(d) The approved basic training course

ED Decision 2015/029/R

- 1. Where the maintenance training organisation approved under <a href="Part-147">Part-147</a> contracts the practical training element either totally or in part to another organisation in accordance with <a href="147.A.100(d">147.A.100(d</a>), the organisation in question should ensure that the practical training elements are properly carried out.
- 2. At least 30% of the practical training element should be carried out in an actual maintenance working environment.

## AMC 147.A.200(f) The approved basic training course

ED Decision 2015/029/F

 In order to follow pedagogical and human factors principles, the maximum number of training hours per day for the theoretical training should not be more than 6 hours. A training hour means 60 minutes of tuition excluding any breaks, examination, revision, preparation and aircraft visit. In exceptional cases, the competent authority may allow deviation from this

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SECTION A — TECHNICAL

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standard when it is properly justified that the proposed number of hours follows pedagogical and human factors principles. These principles are especially important in those cases where:

- Theoretical and practical training are performed at the same time;
- Training and normal maintenance duty/apprenticeship are performed at the same time.
- 2. The minimum participation time for the trainee to meet the objectives of the course should not be less than 90 % of the tuition hours. Additional training may be provided by the training organisation in order to meet the minimum participation time. If the minimum participation defined for the course is not met, a certificate of recognition should not be issued.

## AMC 147.A.200(g) The approved basic training course

ED Decision 2020/002/R

Typical conversion durations are given below:

- (a) The approved basic training course to qualify for conversion from holding a Part-66 aircraft maintenance licence in subcategory A1 to subcategory B1.1 or B2 should not be less than 1600 hours and for conversion from holding a Part-66 aircraft maintenance licence in subcategory A1 to subcategory B1.1 combined with B2 should not be less than 2200 hours. The course should include between 60% and 70% knowledge training.
- (b) The approved basic training course to qualify for conversion from holding a Part-66 aircraft maintenance licence in subcategory B1.1 to B2 or category B2 to B1.1 should not be less than 600 hours, and should include between 80% and 85% knowledge training.
- (c) The approved basic training course to qualify for conversion from holding a Part-66 aircraft maintenance licence in subcategory B1.2 to subcategory B1.1 should not be less than 400 hours, and should include between 50% and 60% knowledge training.
- (d) The approved basic training course to qualify for conversion from holding a Part-66 aircraft maintenance licence in one subcategory A to another subcategory A should not be less than 70 hours, and should include between 30% and 40% knowledge training.
- (e) The approved basic training course to qualify for conversion from holding a Part-66 aircraft maintenance licence in any subcategory A to category B2L (with any system rating) should not be less than 800 hours and should include between 60 and 70 % of knowledge training.

## 147.A.205 Basic knowledge examinations

Regulation (EU) No 1321/2014

Basic knowledge examinations shall:

- (a) be in accordance with the standard defined in Annex III (Part-66).
- (b) be conducted without the use of training notes.
- (c) cover a representative cross section of subjects from the particular module of training completed in accordance with Annex III (Part-66).

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### AMC 147.A.205 Basic knowledge examinations

ED Decision 2015/029/R

The competent authority may accept that the maintenance training organisation approved under <a href="Part-147">Part-147</a> can conduct examination of students who did not attend an approved basic course at the organisation in question.

## 147.A.210 Basic practical assessment

Regulation (EU) No 1321/2014

- (a) Basic practical assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility.
- (b) The student shall achieve an assessed pass with respect to point <u>147.A.200(e)</u>.

## AMC 147.A.210(a) Basic practical assessment

ED Decision 2015/029/R

Where the maintenance training organisation approved under Part-147 contracts the practical training element either totally or in part to another organisation in accordance with 147.A.100(d) and chooses to nominate practical assessors from the other organisation, the organisation in question should ensure that the basic practical assessments are carried out.

## AMC 147.A.210(b) Basic practical assessment

ED Decision 2015/029/R

An assessed pass for each student should be granted when the practical assessor is satisfied that the student meets the criteria of 147.A.200(e). This means that the student has demonstrated the capability to use relevant tools/equipment/test equipment as specified by the tool/equipment/test equipment manufacturer and the use of maintenance manuals in that the student can carry out the required inspection/testing without missing any defects, can readily identify the location of components and is capable of correct removal/fitment/adjustment of such components. The student is only required to carry out enough inspection/testing and component removal/fitment/adjustments to prove capability. The student should also show an appreciation of the need to ensure clean working conditions and the observance of safety precautions for the student and the product. In addition, the student should demonstrate a responsible attitude in respect to flight safety and airworthiness of the aircraft.

<u>Appendix III to AMC to Part-66</u> provides criteria for the competence assessment performed by the designated assessors (and their qualifications).

## **SUBPART D — AIRCRAFT TYPE/TASK TRAINING**

## 147.A.300 Aircraft type/task training

Regulation (EU) No 1321/2014

A maintenance training organisation shall be approved to carry out <u>Annex III (Part-66)</u> aircraft type and/or task training subject to compliance with the standard specified in point 66.A.45.

## AMC 147.A.300 Aircraft type/task training

ED Decision 2015/029/R

Aircraft type training may be sub-divided in airframe and/or powerplant and/or avionics/electrical systems type training courses. A maintenance training organisation approved under <a href="Part-147">Part-147</a> may be approved to conduct airframe type training only, powerplant type training only, avionics/electrical systems type training only or any combination thereof.

- 1. Airframe type training course means a type training course including all relevant aircraft structure and electrical and mechanical systems excluding the powerplant.
- 2. Powerplant type training course means a type training course on the bare engine, including the build-up to a quick engine change unit.
- 3. The interface of the engine/airframe systems should be addressed by either airframe or powerplant type training. In some cases, such as for general aviation, it may be more appropriate to cover the interface during the airframe course due to the large variety of aircraft that can have the same engine type installed.
- 4. Avionics/electrical systems type training course means type training on avionics and electrical systems covered by but not necessarily limited to ATA (Air Transport Association) chapters 22, 23, 24, 25, 27, 31, 33, 34, 42, 44, 45, 46, 73 and 77 or equivalent.

## 147.A.305 Aircraft type examinations and task assessments

Regulation (EU) No 1321/2014

A maintenance training organisation approved in accordance with point <u>147.A.300</u> to conduct aircraft type training shall conduct the aircraft type examinations or aircraft task assessments specified in <u>Annex III (Part-66)</u> subject to compliance with the aircraft type and/or task standard specified in point <u>66.A.45</u> of <u>Annex III (Part-66)</u>.



## SECTION B — PROCEDURES FOR COMPETENT AUTHORITIES

### SUBPART A — GENERAL

## 147.B.05 Scope

Regulation (EU) No 1321/2014

This section establishes the administrative requirements to be followed by the competent authorities in charge of the application and the enforcement of Section A of this Part.

## **147.B.10** Competent Authority

Regulation (EU) No 1321/2014

(a) General

The Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of certificates under this <u>Annex (Part-147)</u>. This competent authority shall establish documented procedures and an organisational structure.

(b) Resources

The competent authority shall be appropriately staffed to carry out the requirements of this Part.

(c) Procedures

The competent authority shall establish procedures detailing how compliance with this <u>Annex</u> (Part-147) is accomplished.

The procedures shall be reviewed and amended to ensure continued compliance.

(d) Qualification and training

All staff involved in approvals related to this Annex must:

- 1. Be appropriately qualified and have all necessary knowledge, experience and training to perform their allocated tasks.
- 2. Have received training and continuation training on Annex III (Part-66) and Annex IV (Part-147) where relevant, including its intended meaning and standard.

## AMC 147.B.10(a) Competent authority

ED Decision 2015/029/R

- In deciding upon the required organisational structure, the competent authority should review
  the number of certificates to be issued, the number and size of potential <u>Part-147</u> approved
  maintenance training organisations within that Member State, as well as the level of civil
  aviation activity, number and complexity of aircraft and the size of the Member State's aviation
  industry.
- 2. The competent authority should retain effective control of important surveillance functions and not delegate them in such a way that <a href="Part-147">Part-147</a> organisations, in effect, regulate themselves in airworthiness matters.



3. The set-up of the organisational structure should ensure that the various tasks and obligations of the competent authority are not relying on individuals. That means that a continuing and undisturbed fulfilment of these tasks and obligations of the competent authority should also be guaranteed in case of illness, accident or leave of individual employees.

### AMC 147.B.10(b) Competent authority

ED Decision 2015/029/R

- 1. competent authority surveyors should have:
  - 1.1. practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - 1.2. comprehensive knowledge of:
    - (a) relevant parts of implementing rules, certification specifications and guidance material;
    - (b) the competent authority's procedures;
    - (c) the rights and obligations of a surveyor;
    - (d) quality systems;
    - (e) continuing airworthiness management.
  - 1.3. training on auditing techniques.
- 2. five years relevant work experience to be allowed to work as a surveyor independently. This may include experience gained during training to obtain the 1.5 qualification.
- 3. a relevant engineering degree or an aircraft maintenance or training qualification with additional education. 'relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components.
  - 3.1. knowledge of a relevant sample of aircraft types
  - 3.2. knowledge of maintenance training standards.
- 4. In addition to technical competency, surveyors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.
- 5. A programme for continuation training should be developed that ensures that the surveyors remain competent to perform their allocated tasks.

## AMC 147.B.10(c) Competent authority

ED Decision 2015/029/R

The documented procedures should contain the following information:

- (a) The Member State's designation of the competent authority(ies).
- (b) The title(s) and name(s) of the manager(s) of the competent authority and their duties and responsibilities.
- (c) Organisation chart(s) showing associated chains of responsibility of the senior persons.
- (d) A procedure defining the qualifications for staff together with a list of staff authorised to sign certificates.

- (e) A general description of the facilities.
- (f) Procedures specifying how the competent authority(ies) ensure(s) compliance with <u>Part-147</u>.

## 147.B.20 Record-keeping

Regulation (EU) No 1321/2014

- (a) The competent authority shall establish a system of record-keeping that allows adequate traceability of the process to issue, renew, continue, vary, suspend or revoke each approval.
- (b) The records for the oversight of maintenance training organisations shall include as a minimum:
  - 1. the application for an organisation approval.
  - 2. the organisation approval certificate including any changes.
  - 3. a copy of the audit program listing the dates when audits are due and when audits were carried out.
  - 4. continued oversight records including all audit records.
  - 5. copies of all relevant correspondence.
  - 6. details of any exemption and enforcement actions.
  - 7. any report from other competent authorities relating to the oversight of the organisation.
  - 8. organisation exposition and amendments.
- (c) The minimum retention period for the point (b) records shall be four years.

## AMC 147.B.20 Record-keeping

ED Decision 2015/029/R

- 1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organized in a consistent way throughout the competent authority (chronological, alphabetical order, etc.).
- 2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.
- 3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware- or software-changes take place special care should be taken that all necessary data continues to be accessible at least through the full period specified in 147.B.20.

## 147.B.25 Exemptions

Regulation (EU) 2019/1383

- (a) The competent authority may exempt a State education department school from:
  - 1. being an organisation as specified in point <u>147.A.10</u>.
  - 2. having an accountable manager, subject to the limitation that the department appoint a senior person to manage the training organisation and such person has a budget sufficient to operate the organisation to the standard of this <a href="https://example.com/new-person">Annex (Part-147)</a>.



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- 3. having recourse to the independent audit part of a quality system subject to the department operating an independent schools inspectorate to audit the maintenance training organisation at the frequency required by this Part.
- (b) All exemptions granted in accordance with Article 71(1) of Regulation (EU) 2018/1139 shall be recorded and retained by the competent authority.

### SUBPART B — ISSUE OF AN APPROVAL

Regulation (EU) No 1321/2014

This Subpart provides the requirements to issue or vary the maintenance training organisation approval.

## 147.B.110 Procedure for approval and changes to the approval

Regulation (EU) No 1321/2014

- (a) Upon receipt of an application, the competent authority shall:
  - review the maintenance training organisation exposition; and
  - 2. verify the organisation's compliance with the requirement of Annex IV (Part-147).
- (b) All findings identified shall be recorded and confirmed in writing to the applicant.
- (c) All findings shall be closed in accordance with point <u>147.B.130</u> before the approval is issued.
- (d) The reference number shall be included on the approval certificate in a manner specified by the Agency.

# GM to 147.B.110 Procedure for approval and changes to the approval

ED Decision 2015/029/R

- 1. A meeting should be arranged between the applicant and the Member State who issue <a href="Part-147">Part-147</a> approvals to determine if the applicant's training activities justify the investigation for issue of <a href="Part-147">Part-147</a> approval and to ensure that the applicant understands what needs to be done for <a href="Part-147">Part-147</a> approval. This meeting is not intended to establish compliance but rather to see if the activity is a <a href="Part-147">Part-147</a> activity.
- 2. Assuming that the applicant's activities come within the scope of <a href="Part-147">Part-147</a> approval, instructions should be sent to the competent authority staff requesting that an audit of the applicant be carried out and when satisfied that compliance has been established, a recommendation for the issue of approval should be submitted to the competent authority staff who grant approval unless these are the same staff. The competent authority should determine how and by whom the audit shall be conducted. For example, if the applicant is a large training organisation, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single person audits is most appropriate for the particular situation. A further consideration in the case of a combined <a href="Part-145/147">Part-145/147</a> organisation is the possibility to combine the audits.
- 3. Where it is intended that the maintenance training organisation may conduct training and examinations away from the maintenance training organisation address(es) in accordance with 147.A.145(c), then a sample audit should be carried out by the competent authority from time to time of the process to ensure that procedures are followed. For practical reasons such sample audits will need to be carried out when training is being conducted away from the maintenance training organisation address(es).
- 4. The auditing surveyor should ensure that they are always accompanied throughout the audit by a senior member of the organisation making application for <a href="Part-147">Part-147</a> approval. Normally this should be the proposed quality manager. The reason for being accompanied is to ensure that the organisation is fully aware of any findings during the audit. In any case, the proposed quality



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- manager/senior member of the organisation should be debriefed at the end of the audit visit on the findings made during the audit.
- 5. There will be occasions when the auditing surveyor may find situations in the applicant's organisation on which he/she is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time of audit and the fact that the situation will be reviewed before a decision is made. The organisation should be informed of the decision within 2 weeks of the audit visit in writing if the decision is a confirmation of non-compliance. If the decision is a finding of being in compliance, a verbal confirmation to the organisation will suffice.
- 6. A change of name of the maintenance training organisation requires the organisation to submit a new application as a matter of urgency stating that only the name of the organisation has changed including a copy of the organisation exposition with the new name. Upon receipt of the application and the organisation exposition, the competent authority should reissue the approval certificate valid only up to the current expiry date.
- A name change alone does not require the competent authority to audit the organisation, unless there is evidence that other aspects of the maintenance training organisation have changed.
- 8. A change of accountable manager requires the maintenance training organisation to submit such fact to the competent authority as a matter of urgency together with the amendment to the accountable manager exposition statement.
- 9. A change of any of the senior personnel specified in <a href="147.4.105">147.A.105</a>(b) requires the maintenance training organisation to submit a <a href="Form 4">Form 4</a> in respect of the particular person. If satisfied that the qualifications and experience meet the standard required by Part-147, the competent authority should indicate acceptance in writing to the maintenance training organisation.
- 10. A change in the maintenance training organisation's exposition requires the competent authority to establish that the procedures specified in the exposition are in compliance with Part-147 and then to establish if these are the same procedures intended for use within the training facility.
- 11. Any change of location of the maintenance training organisation requires the organisation to make a new application to the competent authority together with the submission of an amended exposition. The competent authority should follow the procedure specified in <a href="147.8.110(a)">147.8.110(a)</a> and (b) in so far as the change affects such procedure before issuing a new Part-147 approval certificate.
- 12. The complete or partial reorganisation of a training organisation should require the re-audit of those elements that have changed.
- 13. Any additional basic or aircraft type training courses requires the maintenance training organisation to make a new application to the competent authority together with the submission of an amended exposition. For basic training extensions, an additional sample of new examination questions relevant to the modules associated with the extension being sought will be required to be submitted. The competent authority should follow the procedure of paragraph 11 in so far as the change affects such procedures unless the competent authority is satisfied that the maintenance training organisation has a well-controlled procedure to qualify such change when it is not necessary to conduct the audit elements of the paragraph 11 procedure.



# AMC 147.B.110(a) Procedure for approval and changes to the approval

ED Decision 2015/029/R

- 1. The audit should be conducted on the basis of checking the facility for compliance, interviewing personnel and sampling any relevant training course for its conduct and standard.
- 2. The audit report should be made on an <u>EASA Form 22</u> (see appendix III).

# AMC 147.B.110(b) Procedure for approval and changes to the approval

ED Decision 2015/029/R

The date each finding was rectified should be recorded together with the reference document.

### 147.B.120 Continued validity procedure

Regulation (EU) No 1321/2014

- (a) Each organisation shall be completely audited for compliance with this <u>Annex (Part-147)</u> at periods not exceeding 24 months. This shall include the monitoring of at least one training course and one examination performed by the maintenance training organisation.
- (b) Findings shall be processed in accordance with point <u>147.B.130</u>.

## AMC 147.B.120(a) Continued validity procedure

ED Decision 2015/029/R

- 1. Audits should be conducted to ensure the continuity of the approval; it is not necessary to sample all basic and type training courses, but the competent authority should sample, as appropriate, one basic and one type training course to establish that training is conducted in an appropriate manner. Nevertheless, the duration of the sampling for each course should not be less than 3 hours. Where no training course is being conducted during the audit, arrangements should be made to return at a later date to sample the conduct of a training course.
- 2. It is not necessary to sample all examinations associated with a training course but the competent authority should sample, as appropriate, one basic and one type training course examination.

## 147.B.125 Maintenance training organisation approval certificate

Regulation (EU) No 1321/2014

The maintenance training organisation approval certificate format shall be as detailed in Appendix II.

## **147.B.130 Findings**

Regulation (EU) No 1321/2014

(a) Failure to complete the rectification of any level 1 finding within three days of written notification shall entail revocation, suspension or limitation by the competent authority, of the maintenance training organisation approval in whole or in part.

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(b) Action shall be taken by the competent authority to revoke, limit or suspend in whole or part the approval in case of failure to comply within the time scale granted by the competent authority in the case of a level 2 finding.

## **AMC 147.B.130(b) Findings**

ED Decision 2015/029/R

- 1. In the case of a level 2 finding, the competent authority may give up to six-month notice of the need for rectification. Dependent upon the seriousness of the level 2 finding(s) the competent authority may choose a notice period less than six months.
- 2. When the competent authority chooses to allow six months, the initial notification should be of three-month duration to the quality manager followed by the final three-month notice to the accountable manager.

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## SUBPART C — REVOCATION, SUSPENSION AND LIMITATION OF THE MAINTENANCE TRAINING ORGANISATION APPROVAL

# 147.B.200 Revocation, suspension and limitation of the maintenance training organisation approval

Regulation (EU) No 1321/2014

The competent authority shall:

- (a) suspend an approval on reasonable grounds in the case of potential safety threat; or
- (b) suspend, revoke or limit an approval pursuant to 147.B.130.



## **APPENDICES TO ANNEX IV (PART-147)**

## Appendix I — Basic training course duration

Regulation (EU) 2018/1142

The minimum duration of a complete basic training course shall be as follows:

Basic Course	Duration (in hours)	Theoretical Training Ratio (in %)
A1	800	30–35
A2	650	30–35
A3	800	30–35
A4	800	30–35
B1.1	2 400	50–60
B1.2	2 000	50–60
B1.3	2 400	50–60
B1.4	2 400	50–60
B2	2 400	50–60
B2L	1 500 (*)	50–60
В3	1 000	50–60

<sup>(\*)</sup> This number of hours shall be increased as follows, depending on the additional system ratings selected:

System Rating	Duration (in hours)	Theoretical Training Ratio (in %)
COM/NAV	90	50–60
INSTRUMENTS	55	
AUTOFLIGHT	80	
SURVEILLANCE	40	
AIRFRAME SYSTEMS	100	

## Appendix II — Maintenance Training Organisation Approval — EASA Form 11

Regulation (EU) 2020/270

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[MEMBER STATE (\*)]
A Member of the European Union (\*\*)

#### MAINTENANCE TRAINING AND EXAMINATION ORGANISATION APPROVAL CERTIFICATE

Reference: [MEMBER STATE CODE\*].147.[XXXX]

Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council and to Commission Regulation (EU) No 1321/2014, for the time being in force and subject to the condition specified below, the [COMPETENT AUTHORITY OF THE MEMBER STATE (\*)] hereby certifies:

#### [COMPANY NAME AND ADDRESS]

as a maintenance training organisation in compliance with Section A of Annex IV (Part-147) of Regulation (EU) No 1321/2014, approved to provide training and conduct examinations listed in the approval schedule attached and to issue related certificates of recognition to students using the above references.

#### **CONDITIONS:**

- 1. This approval is limited to what is specified in the scope of work section of the approved maintenance training organisation exposition as referred to in Section A of Annex IV (Part-147); and
- 2. this approval requires compliance with the procedures specified in the approved maintenance training organisation exposition; and
- 3. this approval is valid whilst the approved maintenance training organisation remains in compliance with Annex IV (Part-147) of Regulation (EU) No 1321/2014; and
- 4. subject to compliance with the foregoing conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of original issue:
Date of this revision:
Revision No:
Signed:
For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE (*)]

EASA Form 11 Issue 6

<sup>(\*)</sup> Or EASA if EASA is the competent authority

<sup>(\*\*)</sup> Delete for non-EU Member States or EASA.

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### MAINTENANCE TRAINING AND EXAMINATION ORGANISATION APPROVAL SCHEDULE

Reference: [MEMBER STATE CODE (\*)].147.[XXXX]

Organisation: [COMPANY NAME AND ADDRESS]

CLASS	LICENCE CATEGORY	LIMITATION	
BASIC (**) B1 (**)		TB1.1 (**)	AEROPLANES TURBINE (**)
		TB1.2 (**)	AEROPLANES PISTON (**)
		TB1.3 (**)	HELICOPTERS TURBINE (**)
		TB1.4 (**)	HELICOPTERS PISTON (**)
	B2 (**)/(****)	TB2 (**)	AVIONICS (**)
	B2L (**)	TB2L (**)	AVIONICS (indicate system rating) (**)
	B3 (**)	TB3 (**)	PISTON ENGINE NON-PRESSURISED AERO- PLANES 2 000 KG MTOM AND BELOW (**)
	A (**)	TA.1 (**)	AEROPLANES TURBINE (**)
		TA.2 (**)	AEROPLANES PISTON (**)
		TA.3 (**)	HELICOPTERS TURBINE (**)
		TA.4 (**)	HELICOPTERS PISTON (**)
	L (**) (Only examination)	TL (**)	QUOTE THE SPECIFIC LICENCE SUB- CATEGORY (**)
TYPE/TASK	C (**)	T4 (**)	[QUOTE AIRCRAFT TYPE] (***)
(**)	B1 (**)	T1 (**)	[QUOTE AIRCRAFT TYPE] (***)
	B2 (**)	T2 (**)	[QUOTE AIRCRAFT TYPE] (***)
	A (**)	T3 (**)	[QUOTE AIRCRAFT TYPE] (***)

This approval schedule is limited to those trainings and examinations specified in the scope of work section of the approved maintenance training organisation exposition.

Maintenance training organisation exposition reference:
Date of original issue:
Date of last revision approved: Revision No:
Signed:

For the competent authority:[COMPETENT AUTHORITY OF THE MEMBER STATE (\*)]

EASA Form 11 Issue 6

<sup>(\*)</sup> or EASA if EASA is the competent authority.

<sup>(\*\*)</sup> Delete as appropriate if the organisation is not approved.

<sup>(\*\*\*)</sup> Complete with the appropriate rating and limitation.

<sup>(\*\*\*\*)</sup> The approval for the Basic B2 course/examination includes approval for B2L course/examination for all system ratings.

# AMC to Appendix II to Part-147 — Maintenance Training Organisation Approval referred to in Annex IV (Part-147)

FD Decision 2015/029/R

The following fields on page 2 'Maintenance Training and Examination Approval Schedule' of the maintenance training and examination organization approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the maintenance training organisation exposition
- Date of last revision approved: It refers to the date of the last revision of the maintenance training organisation exposition affecting the content of the certificate. Changes to the maintenance training organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.
- Revision No: It refers to the revision No of the last revision of the maintenance training organisation exposition affecting the content of the certificate. Changes to the maintenance training organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.



## Appendix III — Certificates of Recognition referred to in Annex IV (Part-147) — EASA Forms 148 and 149

### 1. Basic Training/Examination

Regulation (EU) 2019/1383

The basic training certificate template shall be used for recognition of completion of either the basic training or the basic examination, or both the basic training and basic training examinations.

The training certificate shall clearly identify each individual module examination by date passed together with the corresponding version of Appendix I to Annex III (Part-66).

Page 1 of 1
CERTIFICATE OF RECOCNITION
CERTIFICATE OF RECOGNITION
Reference: [MEMBER STATE CODE (*)].147.[XXXX].[YYYYY]
The certificate of recognition is issued to: [NAME]
[DATE and PLACE OF BIRTH]
By: [COMPANY NAME AND ADDRESS]
Reference: [MEMBER STATE CODE (*)].147.[XXXX]
a maintenance training organisation approved to provide training and conduct examinations within its approval schedule and in accordance with Annex IV (Part-147) of Regulation (EU) No 1321/2014.
This certificate confirms that the above named person either successfully passed the approved basic training course (**) or the basic examination (**) stated below in compliance with Regulation (EU) 2018/1139 of the European Parliament and of the Council and to Commission Regulation (EU) No 1321/2014 for the time being in force.
[BASIC TRAINING COURSE (**)] or/and [BASIC EXAMINATION (**)]
[LIST OF PART-66 MODULES/DATE OF EXAMINATION PASSED]
Date:
Signed:
For: [COMPANY NAME]

EASA Form 148 Issue 3

### 2. Type Training/Examination (Appendix III to Part-147)

Regulation (EU) 2019/1383

The type training certificate template shall be used for recognition of completion of either the theoretical elements or the practical elements, or both the theoretical and practical elements of the type rating training course.

The certificate shall indicate the airframe/engine combination for which the training was imparted.

The appropriate references shall be deleted as applicable and the course type box shall detail whether only the theoretical elements or the practical elements were covered or whether theoretical and practical elements were covered.

The training certificate shall clearly identify if the course is a complete course or a partial course (such as an airframe or powerplant or avionic/electrical course) or a difference course based upon the applicant previous experience, for instance A340 (CFM) course for A320 technicians. If the course is not a complete one, the certificate shall identify whether the interface areas have been covered or not.

Page 1 of 1

#### **CERTIFICATE OF RECOGNITION**

Reference: [MEMBER STATE CODE (\*)].147.[XXXX].[YYYYY]

The certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By:

[COMPANY NAME AND ADDRESS]

Reference: [MEMBER STATE CODE (\*)].147.[XXXX]

a maintenance training organisation approved to provide training and conduct examinations within its approval schedule and in accordance with Annex IV (Part-147) of Regulation (EU) No 1321/2014.

This certificate confirms that the above named person either successfully passed the theoretical (\*\*) and/or the practical elements (\*\*) of the approved type training course stated below and the related examinations in compliance with Regulation (EU) 2018/1139 of the European Parliament and of the Council and to Commission Regulation (EU) No 1321/2014 for the time being in force.

[AIRCRAFT TYPE TRAINING COURSE (\*\*)]

[START and END DATES]

[SPECIFY THEORETICAL ELEMENTS AND/OR PRACTICAL ELEMENTS]

or

[AIRCRAFT TYPE EXAMINATION (\*\*)]

[END DATE]

Date:	

Signed: .....

For: [COMPANY NAME]

EASA Form 149 Issue 4

- (\*) Or EASA if EASA is the competent authority
- (\*\*) Delete as appropriate

Annex IV (Part-147)

APPENDICES TO ANNEX IV (Part-147)

# AMC to Appendix III to Part-147 — Certificates of Recognition referred to in Annex IV (Part-147) — EASA Forms 148 and 149

ED Decision 2015/029/R

As stated in <u>Appendix III to Part-147</u>, the <u>EASA Form 148</u> 'Certificate of Recognition for Basic Training/Examination' may be issued after completion of either basic training, basic examination or both basic training and basic examination.

Some examples of cases where an EASA Form 148 could be issued are the following:

- After successful completion of a full basic course in one licence (sub) category including successful completion of the examinations of all the corresponding modules.
- After successful completion of a full basic course in one licence (sub) category without performing examinations. The examinations may be performed at a different <u>Part-147</u> organisation (this organisation will issue the corresponding Certificate of Recognition for those examinations) or at the competent authority.
- After successful completion of all module examinations corresponding to a licence (sub) category.
- After successful completion of certain modules/sub-modules/subjects. It must be noted that 'successful completion of a course' (without the module examinations) means successful completion of the theoretical and practical training including the corresponding practical assessment.



## **APPENDICES TO AMC TO ANNEX IV (PART-147)**

## Appendix I — Maintenance training organisation exposition (MTOE)

ED Decision 2015/029/R

- 1. The following subject headings form the basis of the MTOE required by <u>147.A.140</u>.
- 2. Whilst this format is recommended, it is not mandatory to assemble the MTOE in this manner as long as a cross-reference index is included in the MTOE as an Appendix and the Part 1 items remain in Part 1.
- 3. Part 2, 3 and 4 material may be produced as separate detailed manuals subject to the main exposition containing the Part 2, 3 and 4 fundamental principles and policy on each item. It is then permitted to delegate the approval of these separate manuals to the senior person but this fact and the procedure should be specified in paragraph 1.10.
- 4. Where an organisation is approved in accordance with any other Part(s) which require an exposition, it is acceptable to combine the exposition requirements by merging the Part 1 items and adding the Parts 2, 3 and 4. When this method is used, it is essential to include the cross reference index of Part 4 item 4.3.

#### **PART 1 – MANAGEMENT**

- 1.1. Corporate commitment by accountable manager
- 1.2. Management personnel
- 1.3. Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor
- 1.4. Management personnel organisation chart
- 1.5. List of instructional and examination staff
  - Note: A separate document may be referenced
- 1.6. List of approved addresses
- 1.7. List of sub-contractors as per 147.A.145(d)
- 1.8. General description of facilities at paragraph 1.6 addresses
- 1.9. Specific list of courses and type examinations approved by the competent authority
- 1.10. Notification procedures regarding changes to organisation
- 1.11. Exposition and associated manuals amendment procedure

#### **PART 2 – TRAINING AND EXAMINATION PROCEDURES**

- 2.1. Organisation of courses
- 2.2. Preparation of course material
- 2.3. Preparation of classrooms and equipment
- 2.4. Preparation of workshops/maintenance facilities and equipment
- 2.5. Conduct of theoretical training & practical training (during basic knowledge training and type/task training)
- 2.6. Records of training carried out

Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV
(PART-147)

- 2.7. Storage of training records
- 2.8. Training at locations not listed in paragraph 1.6
- 2.9. Organisation of examinations
- 2.10. Security and preparation of examination material
- 2.11. Preparation of examination rooms
- 2.12. Conduct of examinations (basic knowledge examinations, type/task training examinations and type examinations)
- 2.13. Conduct of practical assessments (during basic knowledge training and type/task training)
- 2.14. Marking and record of examinations
- 2.15. Storage of examination records
- 2.16. Examinations at locations not listed in paragraph 1.6
- 2.17. Preparation, control & issue of basic training course certificates
- 2.18. Control of sub-contractors

#### **PART 3 – TRAINING SYSTEM QUALITY PROCEDURES**

- 3.1. Audit of training
- 3.2. Audit of examinations
- 3.3. Analysis of examination results
- 3.4. Audit and analysis remedial action
- 3.5. Accountable manager annual review
- 3.6. Qualifying the instructors
- 3.7. Qualifying the examiners and the assessors
- 3.8. Records of qualified instructors & examiners

### PART 4 – APPENDICES

- 4.1. Example of documents and forms used
- 4.2. Syllabus of each training course
- 4.3. Cross-reference index if applicable

Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV
(PART-147)

## Appendix II — EASA Form 4

ED Decision 2015/029/R

	[COMPETENT AUTHORITY]				
Details	s of Management Personnel required to be accepted as specified in Part				
1.	Name:				
2.	Position:				
3.	Qualifications relevant to the item (2) position:				
4.	Work experience relevant to the item (2) position:				
Signat	ure: Date:				
On cor	mpletion, please send this form under confidential cover to the competent authority.				
Competent authority use only  Name and signature of authorised competent authority staff member accepting this person:					
Signat	ure: Date:				
Name:	Office:				

EASA Form 4

Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV
(PART-147)

## Appendix III — EASA Form 22

ED Decision 2015/029/R

PART-147 APPROVAL RECOMMENDATION REPORTEASA FORM 22		
Part 1: General		
Name of organisation:		
Approval reference:		
Requested approval rating/ Form 11 dated*:		
Other approvals held (if app.)		
Address of facility audited:		
Audit period: from	to:	
Date(s) of audit(s):		
Audit reference(s):		
Persons interviewed:		
Competent authority surveyor:	Signature(s):	
Compotent authority office:	Date of EASA Form 22 part 1 completions	
Competent authority office:	Date of EASA Form 22 part 1 completion:	
	*delete where applicable	



Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV
(PART-147)

PART-147 APPROVAL RECOMMENDATION REPORTEASA FORM 22						
Part 2: Part-147 Compliance Audit Review						
	mns may be labelled and used as neces	-		-	_	
-	ding subcontractor's, reviewed. Against				_	
	please either tick ( $$ ) the box if satisfied	-				
-	and specify the reference of the Part 4 fi	_	to the bo	x or enter	N/A wher	e an item is not
	or N/R when applicable but not reviewed	1.				
Para	Subject					
147.A.100	Facility requirements					
147.A.105	Personnel requirements					
147.A.110	Records of instructors, examiners					
1171711110	and assessors					
						L
147.A.115	Instructional equipment					
<u>147.A.120</u>	Maintenance training material					
147.A.125	Records					
147.A.130	Training procedures and quality					
147.A.130	system					
	System	<u> </u>			L	
<u>147.A.135</u>	Examinations					
147.A.145	Privileges of the maintenance					
147.A.143	training organisation					
	training organisation				L	
147.A.150	Changes to the maintenance					
117111130	training organisation					
	tranima er gameataer.	L				
147.A.160	Findings					
	. 0	<b></b>				
147.A.200	Approved basic training course					
		<b></b>	······································			
147.A.205	Basic knowledge examinations					
147.A.210	Basic practical assessment					
<u>147.A.300</u>	Aircraft type/task training					
147.A.305	Aircraft type examinations and task					
	assessments					
Competent authority surveyor(s): Signature(s):						
Competent a	authority office: Date of Form	22 part 2	completio	n:		
		~~2				

Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV
(PART-147)

### PART-147 APPROVAL RECOMMENDATION REPORT EASA FORM 22

### Part 3: Compliance with Part-147 maintenance training organisation exposition (MTOE)

Please either tick ( $\sqrt{}$ ) the box if satisfied with compliance; or cross (X) if not satisfied with compliance and specify the reference of the Part 4 finding, or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.

applicable but not reviewed.					
PART 1	MANA	GEMENT			
1.1		Corporate commitment by accountable Manager			
1.2		Management personnel			
1.3		Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor			
1.4		Management personnel organisation chart			
1.5		List of instructional and examination staff			
1.6		List of approved addresses			
1.7		List of sub-contractors as per <u>147.A.145(d)</u>			
1.8		General description of facilities of paragraph 1.6 addresses			
1.9		Specific list of courses and type examinations approved by the competent authority			
1.10		Notification procedures regarding changes to organisation			
1.11		Exposition and associated manuals amendment procedures			
PART 2	TRAINI	NG AND EXAMINATION PROCEDURES			
2.1		Organisation of courses			
2.2		Preparation of course material			
2.3		Preparation of classrooms and equipment			
2.4		Preparation of workshops/maintenance facilities and equipment			
2.5		Conduct of theoretical training & practical training (during basic knowledge training and type/task training)			
2.6		Records of training carried out			
2.7		Storage of training records			
2.8		Training at locations not listed in paragraph 1.6			
2.9		Organisation of examinations			
2.10		Security and preparation of examination material			
2.11		Preparation of examination rooms			
I					

Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV
(PART-147)

2.12		Conduct of examinations (basic knowledge examinations, type/task training examinations and type examinations)
2.13		Conduct of practical assessments (during basic knowledge training and type/task training)
2.14		Marking and record of examinations
2.15		Storage of examination records
2.16		Examinations at locations not listed in paragraph 1.6
2.17		Preparation, control & issue of basic training course certificates.
2.18		Control of sub-contractors.
PART 3 TRAINING SYSTEM QUALITY PROCEDURES		
3.1		Audit of training
3.2		Audit of examinations
3.3		Analysis of examination results.
3.4		Audit and analysis remedial action
3.5		Accountable manager annual review
3.6		Qualifying the instructors
3.7		Qualifying the examiners and the assessors
3.8		Records of qualified instructors & examiners.
PART 4 APPENDICES		
4.1		Example of documents and forms used.
4.2		Syllabus of each training course.
4.3		Cross-reference Index - if applicable.
MTOE reference: MTOE amendment:		
Competent authority audit staff: Signature(s):		
Competent authority office: Date of EASA Form 22 part 3 completion:		



Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV

(PART-147)

PART-147 APPROVAL RECOMMENDATION REPORTEASA FORM 22			
	DADT 447 ADDDOMAL		
	PARI-IA/ APPRIMAI	RECONNICIENTALICIN	REPUBLEANA FURIVI //

# Part 4: Findings regarding Part-147 compliance status Each level 1 and 2 finding should be recorded whether it has been rectified or not and should be identified by a simple cross reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for the necessary corrective action.

Part	Audit reference(s):	L				
2 or 3	Findings	е		Date	Reference	
ref.		V	Due	Closed		
		е				
		1				



Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV
(PART-147)

PART-147 APPROVAL RECOMMENDATION REPORT EASA FORM 22
Part 5: Part-147 approval or continued approval or change recommendation
Name of organisation:
Approval reference:
Audit reference(s):
Applicable Part-147 amendment status:
The following Part-147 scope of approval is recommended for this organisation:
Or, it is recommended that the Part-147 scope of approval specified in EASA Form 11 referenced be continued.
Name of recommending competent authority surveyor:
Signature of recommending competent authority surveyor:
Competent authority office:
Date of recommendation:
EASA Form 22 review (quality check) : Date:

Annex IV (Part-147)

APPENDICES TO AMC TO ANNEX IV
(PART-147)

## Appendix IV — EASA Form 12

ED Decision 2020/002/R

EASA FORM 12 Page 1	APPLICATION FOR PART-147 INITIAL / CHANGE OF APPROVAL
Registered Name & Address of Applicant:	INTIAL / CHANGE OF AFFROVAL
Trading Name (if different): Addresses Requiring Approval:	
Tel No:Fax Nof	E Mail
Scope of Part-147 Approval Relevant to This Initial */ Char (See other side for training course designators to be used)	=
Basic Training:	
Type Training:	
Provide reference to other approvals under the Basic Regu	ulation:
* Cross out whichever is not applicable	
Name & Position of Accountable Manager: Signature of Accountable Manager: Date of Application:	Space for official use
Please send this form with any required fee to be paid under National Legislation to your National Aviation Author	ority



## **ANNEX VA (PART-T)**

## **GENERAL**

## T.1 Competent authority

Regulation (EU) 2015/1536

For the purpose of this Part, the competent authority for the oversight of the aircraft and the organisations shall be the authority designated by the Member State that has issued the Air Operator Certificate to the operator.

## **GM T.1 Competent authority**

ED Decision 2020/002/R

Article 1(b) and Article 3(6) of Commission Regulation (EU) No 1321/2014, as amended by Commission Regulation (EU) 2015/1536, establish the applicability of Annex Va (Part-T) to aircraft registered in a third country for which their regulatory safety oversight has not been delegated to a Member State when they are dry leased-in by an air carrier licensed in accordance with Regulation (EC) No 1008/2008.

This means that the provisions of <u>Part-T</u> are not applicable to aircraft registered in a third country for which their regulatory safety oversight has been delegated to a Member State. In such a case, the responsibilities established under <u>M.A.201</u> are applicable (ref. <u>Article 1(a)(ii)</u> of Regulation (EU) No 1321/2014).

The conditions for the approval of the dry lease-in are specified in ORO.AOC.110.

## SECTION A — TECHNICAL REQUIREMENTS

## **SUBPART A — GENERAL**

## T.A.101 Scope

Regulation (EU) 2019/1383

This section establishes requirements to ensure that continuing airworthiness of aircraft referred to in point (b) of Article 1 is maintained in compliance with the essential requirements of Annex V to Regulation (EU) No 2018/1139 of the European Parliament and of the Council.

It also specifies the conditions to be met by the persons and organisations responsible for management of the continuing airworthiness and maintenance of such aircraft.

## **SUBPART B — CONTINUING AIRWORTHINESS**

## T.A.201 Responsibilities

Regulation (EU) 2018/1142

- 1. (a) The operator is responsible for the airworthiness of the aircraft and it shall ensure that it is not operated unless the aircraft has a type certificate issued or validated by the Agency;
  - (b) the aircraft is in an airworthy condition;
  - (c) the aircraft holds a valid certificate of airworthiness issued in accordance with ICAO Annex 8;
  - (d) the maintenance of the aircraft is performed in accordance with a maintenance programme which shall comply with the requirements of the State of Registry and the applicable requirements of ICAO Annex 6.
  - (e) any defect or damage affecting the safe operation of the aircraft is rectified to a standard acceptable to the State of Registry;
  - (f) the aircraft complies with any applicable:
    - (i) airworthiness directive or continued airworthiness requirement issued or adopted by the State of Registry; and
    - (ii) mandatory safety information issued by the Agency, including airworthiness directives;
  - (g) a release to service is issued to the aircraft after maintenance by qualified organisations in compliance with the State of Registry requirements. The signed release to service shall contain, in particular, the basic details of the maintenance carried out.
  - (h) the aircraft is inspected, through a pre-flight inspection, before each flight
  - (i) all modifications and repairs comply with the airworthiness requirements established by the State of Registry
  - (j) the following aircraft records are available until the information contained has been superseded by new information equivalent in scope and detail but not less than 24 months:
    - (1) the total time in service (hours, cycles and calendar time, as appropriate) of the aircraft and all life-limited components;
    - (2) current status of compliance with  $\underline{\text{T.A.201}(1)(f)}$  requirements;
    - (3) current status of compliance with the maintenance programme;
    - (4) current status of modifications and repairs together with appropriate details and substantiating data to demonstrate that they comply with the requirements established by the State of Registry.
- 2. The tasks specified in <u>T.A.201(1)</u> shall be controlled by the operator's continuing airworthiness management organisation. For this purpose the organisation shall comply with the additional requirements of <u>T.A. Subpart G</u>
- 3. The continuing airworthiness management organisation referred to in point (2) shall ensure that the maintenance and release of the aircraft are performed by a maintenance organisation meeting the requirements of Subpart E of this Annex (Part-T). For this purpose, when the

Annex Va (Part-T)
SECTION A — TECHNICAL
REQUIREMENTS

continuing airworthiness management organisation does not meet those requirements itself, it shall establish a contract with a maintenance organisation meeting those requirements.

## AMC T.A.201(1)(h) Responsibilities

ED Decision 2020/002/R

#### **PRE-FLIGHT INSPECTION**

Contents of the pre-flight inspection may be found in AMC M.A.301(a).

## GM T.A.201(1)(j) Responsibilities

ED Decision 2016/011/R

#### **RECORDS**

The records should provide all the necessary information to allow the CAMO and the competent authority to clearly establish the airworthy condition of the aircraft during the whole lease period.

## AMC1 T.A.201(3) Responsibilities

ED Decision 2020/002/R

#### **MAINTENANCE ORGANISATION**

- 1. The CAMO carries the responsibility for the airworthy condition of the aircraft for which it performs the continuing airworthiness management; it should thus be satisfied before the intended flight that all required maintenance has been properly carried out by a maintenance organisation.
- 2. The CAMO should establish a process to verify that the maintenance organisation complies with the applicable requirements of Subpart E of Part-T.

## AMC2 T.A.201(3) Responsibilities

ED Decision 2020/002/R

#### **CONTRACT**

- 1. The contract between the CAMO and the maintenance organisation(s) should specify in detail the responsibilities and the work to be performed by each party.
- Both the specification of work and the assignment of responsibilities should be clear, unambiguous and sufficiently detailed to ensure that no misunderstanding arises between the parties concerned that could result in a situation where work that has a bearing on the airworthiness or serviceability of aircraft is not or will not be properly performed. <a href="Appendix IV to AMC1 CAMO.A.315(c)">Appendix IV to AMC1 CAMO.A.315(c)</a> Contracted maintenance gives further details on the contents of the contract.
- 3. The CAMO should consider checking at the maintenance facilities any aspect of the contracted work to satisfy its responsibility for the airworthiness of the aircraft during the period of the contract.

Annex Va (Part-T)
SECTION A — TECHNICAL
REQUIREMENTS

## AMC3 T.A.201(3) Responsibilities

ED Decision 2016/011/R

#### **CONTRACT**

Normally the contract with the maintenance organisation should be established for the duration of the lease period, which should not be more than 7 months. For unscheduled line maintenance and component maintenance up to engines, the contract may take the form of individual work orders as long as the scope of work and the responsibilities of the CAMO and of the maintenance organisation are properly addressed.

## SUBPART E — MAINTENANCE ORGANISATION

## T.A.501 Maintenance Organisation

Regulation (EU) 2018/1142

The continuing airworthiness management organisation shall ensure that the aircraft and its components are maintained by organisations complying with the following requirements:

- (1) The organisation holds a maintenance organisation approval issued or acceptable to the State of Registry.
- (2) The scope of approval of the organisation includes the appropriate aircraft and/or component capability.
- (3) The organisation has established an occurrence reporting system which ensures that any identified condition of an aircraft or component which endangers the flight safety is reported to the operator, the competent authority of the operator, the organisation responsible for the type design or supplemental type design and the continuing airworthiness management organisation.
- (4) The organisation has established an organisation's manual providing a description of all the procedures of the organisation.

## **GM1 T.A.501**

ED Decision 2020/002/R

The CAMO should establish a process to verify that the maintenance organisation complies with the applicable requirements of Part-T Subpart E, one of the inputs to this process may be whether the maintenance organisation holds an approval by the State of Registry issued in accordance with the requirements of ICAO Annex 6 Part I Section 8.7.

## AMC1 T.A.501(3)

D Decision 2019/009/R

The occurrence-reporting system should describe the procedures followed by the organisation whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft are transmitted to the operator, to the organisation responsible for the type design of that aircraft, and to the State of Registry.



# SUBPART G — ADDITIONAL REQUIREMENTS FOR CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATIONS APPROVED PURSUANT TO ANNEX Vc (Part-CAMO)

## T.A.701 Scope

Regulation (EU) 2019/1383

This Subpart establishes the requirements to be met, in addition to the requirements of Annex Vc (Part-CAMO), by an organisation approved in accordance with that Annex, for it to be entitled to control the carrying out of the tasks specified in point T.A.201.

## T.A.704 Continuing airworthiness management exposition

Regulation (EU) 2019/1383

In addition to the requirements provided for in point <u>CAMO.A.300</u>, the exposition shall contain procedures specifying how the organisation ensures compliance with this Annex.

## AMC T.A.704 Continuing airworthiness management exposition (CAME)

ED Decision 2020/002/R

In addition to the contents described in <u>AMC1 CAMO.A.300</u>, the CAME should provide additional information describing how the CAMO manages the continuing airworthiness of the aircraft under <u>Part-T</u>. Guidance on the specific contents may be found in <u>Appendix I to AMC T.A.704</u>.

## T.A.706 Personnel requirements

Regulation (EU) 2019/1383

In addition to the requirements provided for in point <u>CAMO.A.305</u>, the personnel referred to in points (a)(3) to (a)(5) and (b)(2) of point <u>CAMO.A.305</u> shall have adequate knowledge of the applicable laws of the third countries where the aircraft is registered.

## **AMC T.A.706 Personnel requirements**

ED Decision 2016/011/R

- 1. Adequate knowledge may be demonstrated by training or work experience with the applicable third-country regulations or a combination of training and experience.
- 2. The competence assessment required by <u>CAMO.A.305(g)</u> should include the knowledge necessary for the performance of the activities under <u>Part-T</u>.

## T.A.708 Continuing airworthiness management

Regulation (EU) 2019/1383

Notwithstanding point <u>CAMO.A.315</u>, for aircraft for which the continuing airworthiness is managed in accordance with the requirements of this Annex the organisation shall:

- (a) ensure that the aircraft is taken to a maintenance organisation whenever necessary;
- (b) ensure that all maintenance is carried out in accordance with the maintenance programme;

Annex Va (Part-T)

SECTION A — TECHNICAL

REQUIREMENTS

- (c) ensure the application of the <u>T.A.201(1)(f)</u> mandatory information;
- ensure that all defects discovered during scheduled maintenance or reported are corrected by the maintenance organisation in accordance with the maintenance data acceptable to the State of Registry;
- (e) coordinate scheduled maintenance, the application of the <u>T.A.201(1)(f)</u> mandatory information, the replacement of life-limited parts, and component inspection to ensure the work is carried out properly;
- (f) manage and archive the continuing airworthiness records required by T.A.201(1)(j);
- (g) ensure that modifications and repairs are approved in accordance with the requirements of the State of Registry.

## GM T.A.708 Continuing airworthiness management

ED Decision 2020/002/R

The CAMO has already approved procedures to perform the management of the aircraft under Part-CAMO. These procedures may be adapted as necessary to satisfy the requirements under <u>T.A.708</u> or the CAMO may decide to develop different procedures.

## T.A.709 Documentation

Regulation (EU) 2019/1383

Notwithstanding point <u>CAMO.A.325</u>, for every aircraft for which the continuing airworthiness is managed in accordance with the requirements of this Annex, the organisation shall hold and use applicable maintenance data acceptable to the State of registry of the aircraft.

## AMC T.A.709 Maintenance data

ED Decision 2016/011/R

Applicable maintenance data should include the ICA applicable to the aircraft, the requirements, procedures, standards and mandatory safety information (MSI) issued by the State of Registry, the requirements, procedures, standards and MSI issued by the Agency.

The applicable maintenance data should be in a language acceptable to the competent authority.

## T.A.711 Privileges

Regulation (EU) 2019/1383

An organisation approved in accordance with Annex Vc (Part-CAMO) may perform the tasks specified in point <u>T.A.708</u> for the aircraft included in its air operator certificate, provided that the organisation has established procedures, approved by the competent authority, in order to ensure compliance with the requirements of this Annex.

## AMC T.A.711 Privileges

ED Decision 2020/002/R

Under the privilege of <u>CAMO.A.125(d)(3)</u>, the CAMO may contract the performance of limited continuing airworthiness tasks required by <u>Part-T</u> with another organisation working under the CAMO's quality system and listed on the approval certificate.

## T.A.712 Management system

Regulation (EU) 2019/1383

In addition to the requirements of point <u>CAMO.A.200</u>, the organisation shall ensure its compliance with the requirements of this Annex.

## T.A.714 Record-keeping

Regulation (EU) 2019/1383

In addition to the requirements of point (a) of point  $\underline{\text{CAMO.A.220}}$ , the organisation shall keep the records referred to in point (1)(j) of point  $\underline{\text{T.A.201}}$ .

## T.A.715 Continued validity

Regulation (EU) 2015/1536

For the approval of an organisation managing the continuing-airworthiness to remain valid, the following requirements shall be met in addition to the requirements of point CAMO.A.135:

- (a) the organisation complies with the applicable requirements of this Annex; and
- (b) the organisation ensures that any person authorised by the competent authority is granted access to any of its facilities, aircraft or documents related to its activities, including any subcontracted activities, to determine compliance with this Annex.

## T.A.716 Findings

Regulation (EU) 2019/1383

- (a) After having received a notification of findings in accordance with point T.B.705, the organisation shall do the following:
  - (1) identify the root cause or causes of, and contributing factors to the finding of non-compliance;
  - (2) prepare, adopt and implement a corrective action plan;
  - (3) demonstrate to the satisfaction of the competent authority that the necessary corrective action to address the finding has been taken.
- (b) The actions referred to in points (1) to (3) of paragraph (a) shall be performed within the time period set by the competent authority in accordance with point T.B.705.



## SECTION B — ADDITIONAL PROCEDURES FOR COMPETENT AUTHORITIES

#### SUBPART A — GENERAL

## T.B.101 Scope

Regulation (EU) 2015/1536

This Section establishes the administrative requirements to be followed by the competent authorities in charge of the application and enforcement of <u>Section A of this Part-T</u>.

## T.B.102 Competent authority

Regulation (EU) 2015/1536

#### 1. General

A Member State shall designate a competent authority with allocated responsibilities as referred to in T.1. This competent authority shall establish documented procedures and an organisational structure.

#### 2. Resources

The number of staff shall be appropriate to carry out the requirements as detailed in this Section

#### 3. Qualification and training

All staff involved in <u>Part-T</u> activities shall be appropriately qualified and have the appropriate knowledge, experience, initial training and continuation training to perform their allocated tasks.

#### 4. Procedures

The competent authority shall establish procedures detailing how compliance with this Part is accomplished.

## AMC T.B.102(3) Competent authority

ED Decision 2020/002/R

Staff should have adequate qualifications and should have received adequate training as described in <u>AMC1 M.B.102(c)</u> and <u>AMC2 M.B.102(c)</u>, and in addition staff should have sufficient knowledge of the applicable third-country airworthiness requirements. Such knowledge may be demonstrated by training in, or work experience with, the applicable third-country airworthiness requirements or a combination of training and work experience.

## AMC T.B.102(4) Competent authority

ED Decision 2016/011/R

<u>AMC M.B.102(d)</u> may be used by the competent authority to establish the procedures required to comply with <u>Part-T</u>. In addition, the competent authority should establish procedures to ensure adequate coordination with the State of Registry.

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SECTION B — ADDITIONAL

PROCEDURES FOR COMPETENT

AUTHORITIES

## T.B.104 Record-keeping

Regulation (EU) 2015/1536

- 1. The requirements of M.B.104(a), (b) and (c) of Annex I shall apply.
- 2. The minimum records for the oversight of each aircraft shall include, at least, a copy of:
  - a) the aircraft's certificate of airworthiness,
  - b) all relevant correspondence relating to the aircraft,
  - c) reports from any inspection and survey performed to the aircraft,
  - d) details of any exemption and enforcement action(s).
- 3. All records specified in <u>T.B.104</u> shall be made available, upon request, to another Member State, the Agency or the State of Registry.
- 4. The records specified in (2) shall be retained until 4 years after the end of the dry lease-in period.

## AMC T.B.104 Record-keeping

ED Decision 2016/011/R

AMC M.B.104(a) and AMC M.B.104(f) may be used by the competent authority to establish its record-keeping system.

## T.B.105 Mutual exchange of information

Regulation (EU) 2015/1536

The requirements of M.B.105 of Annex I shall apply.

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SECTION B — ADDITIONAL

PROCEDURES FOR COMPETENT

AUTHORITIES

## **SUBPART B — ACCOUNTABILITY**

## T.B.201 Responsibilities

Regulation (EU) 2015/1536

- 1. The competent authority as specified in T.1 is responsible for conducting inspections and investigations, including aircraft surveys, in order to verify that the requirements of this Part are complied with.
- 2. The competent authority shall perform inspections and investigations before the approval of the dry lease in agreement in accordance with ARO.OPS.110 (a)(1), to verify that the requirements of <u>T.A.201</u> are then complied with.
- 3. The competent authority shall ensure coordination with the State of Registry as necessary to exercise the oversight responsibilities of the aircraft contained in this <u>Annex Va (Part-T)</u>.

## T.B.202 Findings

Regulation (EU) 2015/1536

- 1. A level 1 finding is any significant non-compliance with the <u>Part-T</u> requirements which lowers the safety standard and hazards seriously the flight safety.
- 2. A level 2 finding is any non-compliance with the <u>Part-T</u> requirements which could lower the safety standard and possibly hazard the flight safety.
- 3. When a finding is detected during inspections, investigations, aircraft surveys or by other means, the competent authority shall:
  - a) take measures as necessary, such as the grounding of the aircraft, to prevent the continuation of the non-compliance,
  - b) require corrective actions appropriate to the nature of the finding to be taken.
- 4. For level 1 findings, the competent authority shall require appropriate corrective action to be taken before further flight and notify the State of Registry.

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SECTION B — ADDITIONAL

PROCEDURES FOR COMPETENT

AUTHORITIES

# SUBPART G — ADDITIONAL REQUIREMENTS FOR CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATIONS APPROVED PURSUANT TO ANNEX Vc (PART-CAMO)

## T.B.702 Initial certification procedure

Regulation (EU) 2019/1383

In addition to the requirements of point <u>CAMO.B.310</u>, the competent authority shall verify and establish that those procedures comply with the requirements of this Annex and it shall verify that the organisation complies with the requirements of this Annex.

## AMC T.B.702 Initial approval

ED Decision 2016/011/R

- 1. The audit report <u>EASA Form 13T</u> should be used to record the audit performance and the findings. EASA Form 13T may be found in <u>Appendix II to AMC T.B.702</u>.
- 2. When the organisation is not approved under Part-CAMO for a particular aircraft type, then the organisation should apply for a change under <a href="CAMO.A.130">CAMO.A.130</a> to include that aircraft type in the scope of approval at the same time when it applies for approval under <a href="Part-T Subpart G">Part-T Subpart G</a> to manage the continuing airworthiness of aircraft referred to in <a href="T.B.101">T.B.101</a>.
- 3. When the organisation is already approved under Part-CAMO for a particular aircraft type, then the approval to manage the continuing airworthiness of aircraft referred to in <u>T.B.101</u> should be considered as a change that requires prior approval by the competent authority. The approval by the competent authority should be performed by approving the proposed amendments to the CAME.

## T.B.704 Continuing oversight

Regulation (EU) 2019/1383

In addition to the requirements of point <u>CAMO.B.305</u>, during each oversight planning cycle, the competent authority shall survey a relevant sample of aircraft referred to in point (b) of Article 1 managed by the organisation.

## T.B.705 Findings and corrective actions

Regulation (EU) 2019/1383

For organisations managing the continuing airworthiness of aircraft referred to in point (b) of Article 1, the competent authority shall apply the requirements contained in point <u>CAMO.B.350</u> when verifying if the organisation complies with the requirements of this Annex.

## **APPENDICES TO AMCs AND GM TO ANNEX VA (PART-T)**

## Appendix I to AMC T.A.704 Continuing airworthiness management exposition (CAME)

ED Decision 2020/002/R

The CAME of the CAMO should be amended to take into account the following elements:

#### 1. In Part 0.1, the accountable manager statement stating for compliance with Part-T:

#### PART 0 — GENERAL ORGANISATION, SAFETY POLICY AND OBJECTIVES

#### 0.1 Safety policy, objectives and accountable manager statement

The accountable manager's exposition statement should embrace the intent of the following paragraph, and in fact this statement may be used without amendment. Any amendment to the statement should not alter its intent.

'This exposition and any associated referenced manuals define the organisation and procedures upon which the competent authority's approval of the continuing airworthiness management organisation is based.

These procedures are endorsed by the undersigned and must be complied with, as applicable, in order to ensure that all continuing airworthiness activities, including maintenance of the aircraft managed, are carried out on time to an approved standard.

These procedures do not override the necessity of complying with any new or amended regulation published from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the approval of the organisation is based on the continuous compliance of the organisation with Part-CAMO, Part-M and Part-T and with the organisation's procedures described in this exposition. The competent authority is entitled to limit, suspend, or revoke the approval certificate if the organisation fails to fulfil the obligations imposed by Part-CAMO, Part-M and Part-T or any conditions according to which the approval was issued.

Suspension or revocation of the CAMO certificate will invalidate the AOC.'

## In Part 0.2, point 'Scope of work — aircraft managed':

#### 0.2 General information and scope of work

Scope of work — aircraft managed

This paragraph should specify the scope of work for which the CAMO is approved. This includes aircraft type/series, aircraft registrations, owner/operator, contract references, State of Registry for CAMOs approved under <a href="Part-T">Part-T</a>, etc. The following is given as an example:

Aircraft type/series	Date included in the scope of work	Aircraft maintenance programme or 'generic'/baseline' maintenance programme	Aircraft registration(s)	Owner/ operator	CAMO contract reference	Part-T State of Registry

Annex Va (Part-T) APPENDICES TO AMCs AND GM TO ANNEX Va (Part-T)

Reference can be made in this paragraph to the operations specifications or operations manual where the aircraft registration(s) is (are) listed.

Depending on the number of aircraft, this paragraph may be updated as follows:

- 1) the paragraph is revised each time an aircraft is removed from or added to the list;
- 2) the paragraph is revised each time a type of aircraft or a significant number of aircraft is removed from or added to the list. In that case, it should be stated in the paragraph where the current list of aircraft managed is available for consultation.
- A new Part 6 is added to include the continuing airworthiness management procedures:

#### PART 6 — CONTINUING AIRWORTHINESS PROCEDURES FOR AIRCRAFT REFERRED TO IN T.A.101

#### 6.1 CONTINUING AIRWORTHINESS MANAGEMENT

- 6.1.1 Aircraft continuing airworthiness records system
  - a) Aircraft continuing airworthiness records system and aircraft technical log This section should describe the system used by the CAMO to manage the aircraft's continuing airworthiness records.
  - Minimum equipment list (MEL) procedures
     This section should describe the specific responsibilities of the CAMO with regard to the issue, update, use and management of the MEL, if applicable to the aircraft.

#### 6.1.2 Aircraft maintenance programme

This paragraph should identify the State of Registry requirements for the maintenance programme, and should describe how the procedure established by the CAMO satisfies those requirements. This procedure should address the specific responsibilities of the CAMO with regard to the development, update, approval or acceptance and management of the maintenance programme. The sources for the maintenance programme and the mandatory tasks should be clearly identified.

- 6.1.3 Time and continuing airworthiness records, responsibilities, retention and access
  - a) Recording of hours and cycles

The recording of flight hours and cycles is essential for the planning of maintenance tasks. This paragraph should describe how the CAMO has access to the current flight hours and cycles information and how this information is processed in the organisation.

## b) Records

This paragraph should describe in detail the type of documents that are required to be recorded and the recording-period requirements for each document. This can be provided by a table or series of tables that should include the following:

- family of document (if necessary),
- name of document,
- retention period,
- responsible person for retention,
- place of retention.

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ANNEX Va (Part-T)

#### c) Preservation of records

This paragraph should set out the means to protect the records from fire, floods, etc., as well as the specific procedures in place to guarantee that the records will not be altered during the retention period [especially for the computer records].

d) Transfer of continuing airworthiness records

#### Transfer-in:

This paragraph should describe the procedure for the acquisition of the necessary continuing airworthiness records by the CAMO before leasing the aircraft and who is responsible for its implementation. The records should include the applicable status of compliance, release to service, approval and substantiating data for modifications and repairs, compliance with mandatory information, etc.

#### Transfer-out:

This paragraph should describe the procedure for the transfer of records in case of transfer of the aircraft to another organisation. In particular, it should specify which records have to be transferred and who is responsible for the coordination [if necessary] of the transfer.

6.1.4 Accomplishment and control of mandatory safety information (MSI) issued by the State of Registry and the Agency

This paragraph should identify the MSI requirements issued by the State of Registry and the Agency. Additionally, it should demonstrate that the CAMO has a comprehensive system for the management of MSI including airworthiness directives (ADs) issued by the State of Registry and the Agency. It may, for instance, include the following subparagraphs:

a) MSI acquisition

This paragraph should specify the sources for the MSI (State of Registry, manufacturer, type certificate holder, the Agency).

b) MSI decision

This paragraph should describe how and by whom the MSI is analysed. It should also describe the decision-making process in case the MSI of the State of Registry conflicts with the MSI issued by the Agency or any EU airworthiness or operational requirement. This paragraph should also describe what kind of information is provided to the contracted maintenance organisations in order to plan and perform the MSI. This should include, as necessary, a specific procedure for emergency MSI management.

#### c) MSI control

This paragraph should specify how the organisation manages to ensure that all the applicable MSI is performed and that they are performed on time. This should include a closed-loop system that allows verifying that for each new or revised MSI and for each aircraft:

- 1. the MSI is not applicable, or
- 2. if the MSI is applicable:
  - the MSI is not yet performed but the time limit is not overdue,

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APPENDICES TO AMCs AND GM TO

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 the MSI is performed, and any repetitive inspection is identified and performed.

This may be a continuous process or may be based on scheduled reviews.

#### 6.1.5 Modifications and repairs

This paragraph should describe the State of Registry requirements for modifications and repairs. In particular, the process for the issue and approval of design data for repairs and modifications, the classification of repairs and modifications, and the specific responsibilities of the CAMO with regard to the management and approval of any modification and repair before embodiment.

#### 6.1.6 Defect reports

a) Analysis

This paragraph should describe how the defect reports provided by the contracted maintenance organisations are processed by the CAMO. The analysis of these reports should be taken into account for the maintenance programme evolution and non-mandatory modification policy.

b) Liaison with type certificate holders and regulatory authorities

Where a defect report shows that such defect is likely to occur to other aircraft, a liaison should be established with the type certificate holder and the authority that has issued the type certificate so that they may take all the necessary actions.

c) Deferred defect policy

This paragraph should describe the State of Registry requirements for deferred defects. Defects such as cracks and structural defects are not addressed by the MEL and the configuration deviation list (CDL). However, it may be necessary in certain cases to defer the rectification of a defect. This paragraph should establish the procedure to be followed in order to ensure that the deferment of any defect rectification will not lead to any safety concern. This will include appropriate liaison with the manufacturer and with the State of Registry.

#### 6.1.7 Reliability programmes

If a reliability programme is required, this paragraph should describe appropriately the management of a reliability programme. It should at least address the following:

- extent and scope of the reliability programme,
- specific organisational structure, duties and responsibilities,
- establishment of reliability data,
- analysis of the reliability data,
- corrective action system (maintenance programme amendment),
- scheduled reviews (reliability meetings with the participation of the competent authority).

This paragraph may, where necessary, be subdivided as follows:

- (a) airframe,
- b) propulsion,

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c) component.

#### 6.1.8 Pre-flight inspections

This paragraph should show how the scope and definition of pre-flight inspection, that is usually performed by the operating crew, is kept consistent with the scope of the maintenance performed by the contracted maintenance organisation. It should show how the evolution of the pre-flight inspection content and of the maintenance programme is concurrent.

The following paragraphs are self-explanatory. Although these activities are normally not performed by continuing airworthiness personnel, they have been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures.

- a) Preparation of aircraft for flight,
- b) Subcontracted ground-handling function,
- c) Security of cargo and baggage loading,
- d) Control of refuelling, quantity/quality,
- e) Control of snow, ice, residues from de-icing or anti-icing operations, dust and sand contamination to an approved standard.

#### 6.1.9 Aircraft weighing

This paragraph should state in which occasion an aircraft has to be weighed taking into account the EU operational requirements and the State of Registry requirements. Weighing may also be required after a major modification. This paragraph should describe who performs the weighing, according to which procedure, who calculates the new weight and balance, and how the result is processed in the organisation.

#### 6.1.10Check flight procedures

This paragraph should describe the criteria for performing a check flight, taking into account the State of Registry requirements and the applicable instructions for continued airworthiness (ICA).

This paragraph should describe how the check flight procedure is established in order to meet its intended purpose, for instance after a heavy maintenance check, after engine or flight control removal installation, etc., and the release procedures to authorise such a check flight.

#### 6.2 CONTRACTED MAINTENANCE

#### 6.2.1 Procedures for contracted maintenance

a) Procedures for the development of maintenance contracts

This paragraph should describe the procedures that the organisation follows to develop maintenance contracts. The CAMO processes to implement the different elements described in <u>Appendix IV to AMC1 CAMO.A.315(c)</u> should be described. In particular, it should cover the responsibilities, tasks and interaction with the contracted maintenance organisation.

This paragraph should also describe, when necessary, the use of work orders for unscheduled line maintenance and component maintenance. The organisation may develop a work order template to ensure that the applicable elements of

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<u>Appendix IV to AMC1 CAMO.A.315(c)</u> are considered. Such a template should be included in Part 5.1.

#### b) Maintenance contractor selection procedure

This paragraph should describe how a maintenance contractor is selected by the CAMO. The selection procedure should describe the verification that the maintenance organisation complies with Subpart E and also that the contractor has the industrial capacity to undertake the required maintenance. The selection procedure should preferably include a contract review process in order to ensure that:

- the contract is comprehensive and it contains no gaps or unclear areas,
- everyone involved in the contract [both at the CAMO and at the maintenance contractor] agrees with the terms of the contract and fully understands their responsibilities,
- the functional responsibilities of all parties are clearly identified.

#### 6.2.2 Audit of aircraft

This paragraph should set out the procedures to perform an audit of an aircraft. It should describe the audit of aircraft before lease and the quality audit of aircraft during the lease period.

#### a) Audit of aircraft before lease

This audit should include an inspection of the aircraft and its records to ensure that the aircraft is airworthy and it complies with the State of Registry requirements, <a href="Part-T">Part-T</a> and any EU requirement applicable for the intended operation. This should include checking that all emergency and operational equipment as required by EU operational and airspace rules is available, that all required maintenance and MSI has been performed, that all modifications and repairs comply with the State of Registry requirements and they are recorded, etc.

#### b) Audit of aircraft during lease

This paragraph should set out the procedure to perform a quality audit of the aircraft during the lease period. This procedure may include:

- compliance with approved procedures,
- contracted maintenance is carried out in accordance with the contract,
- continued compliance with <u>Part-T</u>.

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## Appendix II to AMC T.B.702 EASA Form 13T

ED Decision 2021/009/R

PART-CAMO and T.A. SUBPART G APPROV	AL RECOMMENDATION REPORT	EASA FORM 13T
Part 1: General		
Name of organisation:		
Approval reference:		
Requested approval rating/		
EASA Form 14 or AOC dated*:		
Other approvals held (if app.)		
Address of facility(ies) audited:		
Audit period: from	to	
Date(s) of audit(s):		
Audit reference(s):		
Persons interviewed:		
Competent authority surveyor:	Signature(s):	
Competent authority office:	Date of EASA Form 13T Part 1 con	npletion:
		*delete as appropriate



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ANNEX Va (Part-T)

PART-CAMO and T.A. SUBPART G APPROVAL RECOMMENDATION REPORTEASA FORM 13T							
Part 2: PART-0	CAMO and T.A. Subpart G Com	pliance Aud	lit Review				
Part 2: PART-CAMO and T.A. Subpart G Compliance Audit Review  The five columns may be labelled and used as necessary to record the approval product line or facility, including subcontractor's, reviewed. Against each column used of the following PART-T and/or PART-CAMO subparagraphs please either tick ( $$ ) the box if satisfied with compliance, or cross (X) the box if not satisfied with compliance and specify the reference of the Part 4 finding next to the box, or enter N/A where an item							
Para	le, or N/R when applicable but Subject	. HOLTEVIEW	eu.				
Para	Subject						
T.A.201	Responsibilities						
CAMO.A.115	Application for an organisation certificate						
<u>CAMO.A.120</u>	Means of compliance						
CAMO.A.125	Terms of approval and privileges						
T.A.711	Privileges						
CAMO.A.130	Changes to the organisation						
CAMO.A.135 T.A.715	Continued validity						
CAMO.A.140	Access						
CAMO.A.150 T.A.716	Findings						
CAMO.A.155	Immediate reaction to a safety problem						
CAMO.A.160	Occurrence reporting						
CAMO.A.200 T.A.712	Management system						
CAMO.A.202	Internal safety reporting scheme						
CAMO.A.205	Contracting and						

subcontracting



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CAMO.A.215	Facilities						
CAMO.220 T.A.714	Record keeping						
CAMO.A.300 T.A.704	Continuing airworthiness management exposition						
CAMO.A.305 T.A.706	Personnel requirements						
CAMO.A.310	Airworthiness review staff qualifications						
CAMO.A.315 T.A.708	Continuing airworthiness management						
CAMO.A.320	Airworthiness review						
CAMO.A.325	Continuing airworthiness management data						
T.A.709	Documentation						
Competent au	thority surveyor(s):	Signature(s):					
Competent authority office: Date of EASA Form 13T Part 2 completion:							

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ANNEX Va (Part-T)

## 

## Part 3: Compliance with PART-CAMO and <u>T.A. Subpart G</u> continuing airworthiness management exposition (CAME)

Please either tick ( $\sqrt{}$ ) the box if satisfied with compliance; or cross (X) if not satisfied with compliance and specify the reference of the Part 4 finding; or enter N/A where an item is not applicable; or N/R when applicable but not reviewed.

PART 0 General organisation, safety policy and objectives  1	applicable	e but not	t reviewed.
0.2 General information and scope of work 0.3 Management personnel 0.4 Management organisation chart 0.5 Procedure for changes requiring prior approval 0.6 Procedure for changes not requiring prior approval 0.7 Alternative means of compliance (AltMoC) procedure 0.8 PART 1 Continuing airworthiness management procedures 1.1 Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system 1.1 MEL application 1.2 Aircraft maintenance programmes (AMP) – development amendment and approval 1.3 Continuing airworthiness records, responsibilities, retention, access 1.4 Accomplishment and control of airworthiness directives 1.5 Analysis of the effectiveness of the maintenance programme(s) 1.6 Non mandatory modification and inspections 1.7 Repairs and modifications 1.8 Defect reports 1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures 1.14 Hazard identification and safety risk management schemes 1.15 Internal safety reporting and investigations 1.7 Safety action planning 1.8 Safety action planning 1.9 Safety action planning 1.1 Change management 1.1 Safety training and promotion 1.1 Immediate safety action and coordination with operator's emergency response plan (ERP) 1.7 Compliance monitoring 1.8 Compliance monitoring 1.9 Compliance monitoring 1.10 Laudit plan and audits procedure	PART 0	Gener	al organisation, safety policy and objectives
0.3 Management personnel 0.4 Management organisation chart 0.5 Procedure for changes requiring prior approval 0.6 Procedure for changes not requiring prior approval 0.7 Alternative means of compliance (AltMoC) procedure  PART 1 Continuing airworthiness management procedures 1.1a Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system 1.1b MEL application 1.2 Aircraft maintenance programmes (AMP) – development amendment and approval 1.3 Continuing airworthiness records, responsibilities, retention, access 1.4 Accomplishment and control of airworthiness directives 1.5 Analysis of the effectiveness of the maintenance programme(s) 1.6 Non mandatory modification and inspections 1.7 Repairs and modifications 1.8 Defect reports 1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures  PART 2 Management system procedures  PART 2 Management system procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes 1.1 Lernal safety reporting and investigations 2.2 Internal safety reporting and investigations 2.3 Safety action planning 2.4 Safety partining and promotion 2.5 Change management 2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	0.1		Safety policy, objectives and accountable manager statement
0.4       Management organisation chart         0.5       Procedure for changes requiring prior approval         0.6       Procedure for changes not requiring prior approval         0.7       Alternative means of compliance (AltMoC) procedure         PART 1         1.1a       Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system         1.1b       MEL application         1.2       Aircraft maintenance programmes (AMP) – development amendment and approval         1.3       Continuing airworthiness records, responsibilities, retention, access         1.4       Accomplishment and control of airworthiness directives         1.5       Analysis of the effectiveness of the maintenance programme(s)         1.6       Non mandatory modifications and inspections         1.7       Repairs and modifications         1.8       Defect reports         1.9       Engineering activity         1.10       Reliability programmes         1.11       Pre-flight inspections         1.12       Aircraft weighing         1.13       Maintenance check flight procedures         PART 2         Management system procedures         2.1       Hazard identification and safety risk management schemes         2.2	0.2		General information and scope of work
0.5 Procedure for changes requiring prior approval 0.6 Procedure for changes not requiring prior approval 0.7 Alternative means of compliance (AltMoC) procedure  PART 1 Continuing airworthiness management procedures 1.1a Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system 1.1b MEL application 1.2 Aircraft maintenance programmes (AMP) – development amendment and approval 1.3 Continuing airworthiness records, responsibilities, retention, access 1.4 Accomplishment and control of airworthiness directives 1.5 Analysis of the effectiveness of the maintenance programme(s) 1.6 Non mandatory modification and inspections 1.7 Repairs and modifications 1.8 Defect reports 1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures 1.14 Pre-flight inspections 1.15 Aircraft weighing 1.16 Hazard identification and safety risk management schemes 1.17 Internal safety reporting and investigations 1.8 Safety performance monitoring 1.9 Change management 1.10 Safety performance monitoring 1.11 Change management 1.12 Internal safety action and coordination with operator's emergency response plan (ERP) 1.5 Compliance monitoring 1.6 Safety training and procedure	0.3		Management personnel
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Alternative means of compliance (AltMoC) procedure  PART 1 Continuing airworthiness management procedures  1.1a Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system  MEL application  1.2 Aircraft maintenance programmes (AMP) – development amendment and approval  1.3 Continuing airworthiness records, responsibilities, retention, access  1.4 Accomplishment and control of airworthiness directives  1.5 Analysis of the effectiveness of the maintenance programme(s)  1.6 Non mandatory modification and inspections  1.7 Repairs and modifications  1.8 Defect reports  1.9 Engineering activity  1.10 Reliability programmes  1.11 Pre-flight inspections  1.12 Aircraft weighing  1.13 Maintenance check flight procedures  PART 2 Management system procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes  1.2 Internal safety reporting and investigations  2.3 Safety action planning  2.4 Safety performance monitoring  2.5 Change management  2.6 Safety training and promotion  1.7 Immediate safety action and coordination with operator's emergency response plan (ERP)  2.8 Compliance monitoring  2.8.1 Audit plan and audits procedure	0.5		Procedure for changes requiring prior approval
PART 1 Continuing airworthiness management procedures  1.1a Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system  1.1b MEL application  1.2 Aircraft maintenance programmes (AMP) – development amendment and approval  1.3 Continuing airworthiness records, responsibilities, retention, access  1.4 Accomplishment and control of airworthiness directives  1.5 Analysis of the effectiveness of the maintenance programme(s)  1.6 Non mandatory modification and inspections  1.7 Repairs and modifications  1.8 Defect reports  1.9 Engineering activity  1.10 Reliability programmes  1.11 Pre-flight inspections  1.12 Aircraft weighing  1.13 Maintenance check flight procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes  1.1 Internal safety reporting and investigations  2.3 Safety action planning  2.4 Safety performance monitoring  2.5 Change management  2.6 Safety training and promotion  1.7 Immediate safety action and coordination with operator's emergency response plan (ERP)  2.8 Compliance monitoring  2.8.1 Audit plan and audits procedure	0.6		Procedure for changes not requiring prior approval
1.1a Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system  MEL application  1.2 Aircraft maintenance programmes (AMP) – development amendment and approval  1.3 Continuing airworthiness records, responsibilities, retention, access  1.4 Accomplishment and control of airworthiness directives  1.5 Analysis of the effectiveness of the maintenance programme(s)  1.6 Non mandatory modification and inspections  1.7 Repairs and modifications  1.8 Defect reports  1.9 Engineering activity  1.10 Reliability programmes  1.11 Pre-flight inspections  1.12 Aircraft weighing  1.13 Maintenance check flight procedures  PART 2 Management system procedures  PART 2 Hazard identification and safety risk management schemes  1.1 Hazard identification and safety risk management schemes  2.1 Hazard identification and investigations  2.3 Safety action planning  2.4 Safety performance monitoring  2.5 Change management  2.6 Safety training and promotion  1.7 Immediate safety action and coordination with operator's emergency response plan (ERP)  2.8 Compliance monitoring  2.8 Audit plan and audits procedure	0.7		Alternative means of compliance (AltMoC) procedure
log (ATL) system   MEL application	PART 1	Contin	nuing airworthiness management procedures
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1.3 Continuing airworthiness records, responsibilities, retention, access 1.4 Accomplishment and control of airworthiness directives 1.5 Analysis of the effectiveness of the maintenance programme(s) 1.6 Non mandatory modification and inspections 1.7 Repairs and modifications 1.8 Defect reports 1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures  PART 2 Management system procedures 2.1 Hazard identification and safety risk management schemes 2.2 Internal safety reporting and investigations 2.3 Safety action planning 2.4 Safety performance monitoring 2.5 Change management 2.6 Safety training and promotion 1.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	1.1b		MEL application
Accomplishment and control of airworthiness directives  Analysis of the effectiveness of the maintenance programme(s)  Non mandatory modification and inspections  Repairs and modifications  Defect reports  Engineering activity  1.10 Reliability programmes  1.11 Pre-flight inspections  Aircraft weighing  Maintenance check flight procedures  PART 2 Management system procedures  1.11 Hazard identification and safety risk management schemes  Internal safety reporting and investigations  Safety action planning  Safety performance monitoring  Change management  Safety training and promotion  Immediate safety action and coordination with operator's emergency response plan (ERP)  Compliance monitoring  Audit plan and audits procedure	1.2		Aircraft maintenance programmes (AMP) – development amendment and approval
1.5 Analysis of the effectiveness of the maintenance programme(s) 1.6 Non mandatory modification and inspections 1.7 Repairs and modifications 1.8 Defect reports 1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures  PART 2 Management system procedures  PART 2 Internal safety reporting and investigations 2.1 Hazard identification and safety risk management schemes 2.2 Internal safety reporting and investigations 2.3 Safety action planning 2.4 Safety performance monitoring 2.5 Change management 2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	1.3		Continuing airworthiness records, responsibilities, retention, access
1.6 Non mandatory modification and inspections 1.7 Repairs and modifications 1.8 Defect reports 1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes 2.2 Internal safety reporting and investigations 2.3 Safety action planning 2.4 Safety performance monitoring 2.5 Change management 2.6 Safety training and promotion 1.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	1.4		Accomplishment and control of airworthiness directives
1.7 Repairs and modifications 1.8 Defect reports 1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures  PART 2 Management system procedures 2.1 Hazard identification and safety risk management schemes 2.2 Internal safety reporting and investigations 2.3 Safety action planning 2.4 Safety performance monitoring 2.5 Change management 2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	1.5		Analysis of the effectiveness of the maintenance programme(s)
1.8 Defect reports 1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes 1.12 Internal safety reporting and investigations 2.2 Internal safety action planning 2.4 Safety performance monitoring 2.5 Change management 2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	1.6		Non mandatory modification and inspections
1.9 Engineering activity 1.10 Reliability programmes 1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes 1.2 Internal safety reporting and investigations 1.3 Safety action planning 1.4 Safety performance monitoring 1.5 Change management 1.6 Safety training and promotion 1.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 1.8 Compliance monitoring 1.9 Audit plan and audits procedure	1.7		Repairs and modifications
1.10 Reliability programmes  1.11 Pre-flight inspections  1.12 Aircraft weighing  1.13 Maintenance check flight procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes  2.2 Internal safety reporting and investigations  2.3 Safety action planning  2.4 Safety performance monitoring  2.5 Change management  2.6 Safety training and promotion  2.7 Immediate safety action and coordination with operator's emergency response plan (ERP)  2.8 Compliance monitoring  2.8.1 Audit plan and audits procedure	1.8		Defect reports
1.11 Pre-flight inspections 1.12 Aircraft weighing 1.13 Maintenance check flight procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes 2.2 Internal safety reporting and investigations 2.3 Safety action planning 2.4 Safety performance monitoring 2.5 Change management 2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	1.9		Engineering activity
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1.13 Maintenance check flight procedures  PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes  2.2 Internal safety reporting and investigations  2.3 Safety action planning  2.4 Safety performance monitoring  2.5 Change management  2.6 Safety training and promotion  2.7 Immediate safety action and coordination with operator's emergency response plan (ERP)  2.8 Compliance monitoring  2.8.1 Audit plan and audits procedure	1.11		Pre-flight inspections
PART 2 Management system procedures  2.1 Hazard identification and safety risk management schemes  2.2 Internal safety reporting and investigations  2.3 Safety action planning  2.4 Safety performance monitoring  2.5 Change management  2.6 Safety training and promotion  2.7 Immediate safety action and coordination with operator's emergency response plan (ERP)  2.8 Compliance monitoring  2.8.1 Audit plan and audits procedure	1.12		Aircraft weighing
2.1 Hazard identification and safety risk management schemes  2.2 Internal safety reporting and investigations  2.3 Safety action planning  2.4 Safety performance monitoring  2.5 Change management  2.6 Safety training and promotion  2.7 Immediate safety action and coordination with operator's emergency response plan (ERP)  2.8 Compliance monitoring  2.8.1 Audit plan and audits procedure	1.13		Maintenance check flight procedures
2.2 Internal safety reporting and investigations 2.3 Safety action planning 2.4 Safety performance monitoring 2.5 Change management 2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	PART 2	Manag	gement system procedures
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2.4 Safety performance monitoring 2.5 Change management 2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	2.2		Internal safety reporting and investigations
2.5 Change management 2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	2.3		Safety action planning
2.6 Safety training and promotion 2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	2.4		Safety performance monitoring
2.7 Immediate safety action and coordination with operator's emergency response plan (ERP) 2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	2.5		Change management
2.8 Compliance monitoring 2.8.1 Audit plan and audits procedure	2.6		Safety training and promotion
2.8.1 Audit plan and audits procedure	2.7		Immediate safety action and coordination with operator's emergency response plan (ERP)
	2.8		Compliance monitoring
2.8.2 Monitoring of continuing airworthiness management activities	2.8.1		Audit plan and audits procedure
	2.8.2		Monitoring of continuing airworthiness management activities

Annex Va (Part-T)

APPENDICES TO AMCs AND GM TO

ANNEX Va (Part-T)

2.8.3		Monitoring of the effectiveness of the maintenance programme(s)
2.8.4		Monitoring that all maintenance is carried out by an appropriate maintenance organisation
2.8.5		Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor
2.8.6		Compliance monitoring personnel
2.9		Control of personnel competency
2.10		Management system record-keeping
2.11		Occurrence reporting
PART 3	Contra	cted Maintenance – management of maintenance
3.1		Procedures for contracted maintenancex
3.2		Product audit of aircraft
PART 4	Airwoi	thiness review procedures
4.1		Airworthiness review staff
4.2		Documented review of aircraft records
4.3		Physical survey
4.4		Additional procedures for recommendations to the competent authorities for the import of aircraft
4.5		Recommendations to competent authorities
4.6		Issue of ARC
4.7		Airworthiness review records, responsibilities, retention and access
4.8		ARC extension
PART 4B	Permit	to fly procedures
4B.1		Conformity with approved flight conditions
4B.2		Issue of permit to fly under the CAMO privilege
4B.3		Permit to fly authorised signatories
4B.4		Interface with the competent authority for the flight
4B.5		Permit to fly records, responsibilities, retention and access
PART 5	Suppo	rting documents
5.1		Sample Documents, including the template of the ATL system
5.2		List of airworthiness review staff
5.3		List of subcontractors as per <u>CAMO.A.125(d)(3)</u>
5.4		List of contracted maintenance organisations and list of maintenance contracts as per <a href="CAMO.A.300(a)(13)">CAMO.A.300(a)(13)</a>
5.5		Copy of contracts for subcontracted work (Appendix II to AMC1 CAMO.A.125(d)(3))
5.6		List of approved maintenance programmes as per <a>CAMO.A.300(a)(12)</a>
5.7		List of currently approved alternative means of compliance as per point CAMO.A.300(a)(13)

PART 6	CO	NTINUING AIRWORTHINESS PROCEDURES FOR AIRCRAFT REFERRED TO IN <u>T.A.101</u>		
PART 6.1	CONT	INUING AIRWORTHINESS MANAGEMENT		
6.1.1		Aircraft continuing airworthiness records system		
6.1.2		Aircraft maintenance programme		
6.1.3		Time and continuing airworthiness records, responsibilities, retention and access		
6.1.4		Accomplishment and control of mandatory safety information (MSI) issued by the State of Registry and Agency		
6.1.5		Modifications and repairs standards		
6.1.6		Defect reports		
6.1.7		Reliability programmes		
6.1.8		Pre-flight inspections		
6.1.9		Aircraft weighing		
6.1.10		Check flight procedures		
PART 6.2	CONT	RACTED MAINTENANCE		
6.2.1		Procedures for contracted maintenance		
6.2.2		Audit of aircraft		
		•		
CAME Reference: CAME Amendment:				
Competent authority audit staff: Signature(s):				
Competent authority office: Date of EASA Form 13T Part 3 completion:				



Annex Va (Part-T)

APPENDICES TO AMCs AND GM TO

ANNEX Va (Part-T)

PART-	CAMO and T.A. SUBPART G APPROVAL RECOMMEND	ATIO	N REPORT	EASA FORM	VI 13T			
Part 4: Findin Each level 1 a by a simple c	Part 4: Findings regarding PART-CAMO and T.A. Subpart G compliance status  Each level 1 and 2 finding should be recorded whether it has been rectified or not, and should be identified by a simple cross reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for the necessary corrective action.							
Part 2 or 3	Audit reference(s):	L e v	Corrective action					
reference	Findings	e I	Date Due	Date Closed	Reference			



Annex Va (Part-T)

APPENDICES TO AMCs AND GM TO

ANNEX Va (Part-T)

PART-CAMO and T.A. SUB	PART G APPROVAL RECOMMENDATION REPORT EASA FORM 13T		
Part 5: PART-CAMO and T.A. Subp	part G approval or continued approval or change recommendation*		
Name of organisation:			
Approval reference:			
Audit reference(s):			
The following PART-CAMO terms	of approval are recommended for this organisation:		
Or, it is recommended that the PA	ART-CAMO terms of approval specified in <u>EASA Form 14</u> referenced be continued.		
Name of recommending competent authority inspector:			
Signature of recommending competent authority inspector:			
Competent authority office:			
Date of recommendation:			
EASA Form 13T review:	Date:		
	*delete as appropriate		



## ANNEX VB (PART-ML)

## **GENERAL**

## ML.1

Regulation (EU) 2019/1383

- (a) In accordance with paragraph 2 of Article 3, this Annex (Part-ML) applies to the following other than complex motor-powered aircraft not listed in the air operator certificate of an air carrier licensed in accordance with Regulation (EC) No 1008/2008:
  - (1) aeroplanes of 2 730 kg maximum take-off mass (MTOM) or less;
  - (2) rotorcraft of 1 200 kg MTOM or less, certified for a maximum of up to 4 occupants;
  - (3) other ELA2 aircraft.
- (b) For the purpose of this Annex, the competent authority shall be the authority designated by the Member State of registry of the aircraft.
- (c) For the purpose of this Annex, the following definitions shall apply:
  - (1) 'independent certifying staff' means certifying staff who does not work on behalf of an approved maintenance organisation and who complies with, alternatively:
    - (i) the requirements of Annex III (Part-66);
    - (ii) for aircraft to which Annex III (Part-66) does not apply, the certifying staff requirements in force in the Member State of registry of the aircraft;
  - (2) 'maintenance organisation' means an organisation holding an approval issued in accordance with, alternatively:
    - (i) Subpart F of Annex I (Part-M);
    - (ii) Section A of Annex II (Part-145);
    - (iii) Section A of Annex Vd (Part-CAO).
  - (3) 'owner' means the person responsible for the continuing airworthiness of the aircraft, including, alternatively:
    - (i) the registered owner of the aircraft;
    - (ii) the lessee in the case of a leasing contract;
    - (iii) the operator.

## **SECTION A — TECHNICAL REQUIREMENTS**

## **SUBPART A — GENERAL**

## ML.A.101 Scope

Regulation (EU) 2019/1383

This Section establishes the measures to be taken in order to ensure that the aircraft is airworthy. It also specifies the conditions to be met by the persons or organisations involved in the activities related to the airworthiness of the aircraft.

## SUBPART B — ACCOUNTABILITY

## ML.A.201 Responsibilities

Regulation (EU) 2020/270

- (a) The owner of the aircraft shall be responsible for the continuing airworthiness of the aircraft and shall ensure that no flight takes place unless all of the following requirements are met:
  - (1) the aircraft is maintained in an airworthy condition;
  - (2) any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable;
  - (3) the airworthiness certificate is valid;
  - (4) the maintenance of the aircraft is performed in accordance with the Aircraft Maintenance Program ('AMP') specified in point ML.A.302.
- (b) By derogation from point (a), where the aircraft is leased, the responsibilities set out in point (a) shall apply to the lessee, if the lessee is identified either in the registration document of the aircraft or in the leasing contract.
- (c) Any person or organisation performing maintenance of aircraft and components shall be responsible for the maintenance tasks being performed.
- (d) The pilot-in-command of the aircraft shall be responsible for the satisfactory accomplishment of the preflight inspection. That inspection shall be carried out by the pilot or another qualified person but need not be carried out by an approved maintenance organisation or by certifying staff.
- (e) For aircraft operated by commercial Approved Training Organisations ('ATO') and commercial Declared Training Organisations ('DTO') referred to in Article 10a of Regulation (EU) No 1178/2011 or not operated in accordance with Annex VII to Regulation (EU) No 965/2012 (Part-NCO) or operated in accordance with Subpart-ADD of Annex II (Part-BOP) to Regulation (EU) 2018/395 or Subpart-DEC of Annex II (Part-SAO) to Regulation (EU) 2018/1976<sup>1</sup>, the operator shall:
  - (1) be approved as a CAMO or as a CAO for the management of the continuing airworthiness of its aircraft in accordance with Annex Vc (Part-CAMO), Subpart G of Annex I (Part-M) or Annex Vd (Part-CAO), or contract such an organisation using the contract set out in Appendix I to this Annex;
  - (2) ensure that all maintenance is performed by maintenance organisations approved in accordance with point (c)(2) of point  $\underline{\mathsf{ML.1}}$ .;
  - (3) ensure that the requirements of point (a) are satisfied.
- (f) For aircraft not included in point (e), in order to satisfy the requirements of point (a), the owner of the aircraft may contract the tasks associated with continuing airworthiness management to an organisation approved as a CAMO or CAO in accordance with Annex Vc (Part-CAMO), Subpart G of Annex I (Part-M) or Annex Vd (Part-CAO). In that case, the contracted organisation shall assume responsibility for the proper performance of those tasks and a written contract shall be concluded in accordance with Appendix I to this Annex. If the owner does not contract

Commission Implementing Regulation (EU) 2018/1976 of 14 December 2018 laying down detailed rules for the operation of sailplanes pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council (OJ L326, 20.12.2018, p. 64)



Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

- such an organisation, the owner is responsible for the proper performance of the tasks associated with the continuing airworthiness management
- (g) The owner shall grant the competent authority access to the aircraft and the aircraft records, in order for the competent authority to determine whether the aircraft complies with the requirements of this Annex.
- (h) In the case of an aircraft included in an air operator certificate is used for non-commercial or specialised operations under point ORO.GEN.310 of Annex III or point NCO.GEN.104 of Annex VII to Regulation (EU) No 965/2012¹, the operator shall ensure that the tasks associated with continuing airworthiness are performed by the CAMO approved in accordance with Annex Vc (Part-CAMO) or Subpart G of Annex I (Part-M) or the combined airworthiness organisation ("CAO") approved in accordance with Annex Vd (Part-CAO), whichever applicable, of the air operator certificate holder.

## **GM1 ML.A.201 Responsibilities**

ED Decision 2020/002/R

The following tables provide a summary of Part-ML main provisions and alleviations established in ML.A.201, ML.A.302, ML.A.801 and ML.A.901.

In the tables, the term 'CAO(-CAM)' designate a CAO with continuing airworthiness management privileges.

		alloon		
	Part-BOP Subpart ADD	Part-BOP non-Subpart ADD		
		commercial ATO/DTO	Non-ATO/DTO or non-commercial ATO/DTO	
Contract with CAMO/CAO (CAM) required?	yes	yes	no*	
Aircraft maintenance	The AMP document must be approved by the contracted CAMO/CAO(-CAM)		If there is no CAMO/CAO(-CAM), the AMP must be declared by the owner.	
programme (AMP)			If there is a contracted CAMO/CAO(-CAM), the AMP must be approved by the CAMO/CAO(-CAM).	
	If ML.A.302(e) conditions are met, producing an AMP document is not required.			
Maintenance	By a maintenance organisation		By a maintenance organisation or by independent certifying staff or the pilotowner**	
Airworthiness review (AR) and airworthiness review certificate (ARC)	By a maintenance organisation*** or by the contracted CAMO/CAO(-CAM) or by the competent authority		By a maintenance organisation*** or independent certifying staff*** or by the CAMO/CAO(-CAM) (if contracted) or by the competent authority	

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Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1).

	Sailplane			
	Part-SAO Subpart-DEC	Part-SAO non-Subpart-DEC		
		commercial ATO/DTO	Non-ATO/DTO or non-commercial ATO/DTO	
Contract with CAMO/CAO (-CAM) required?	yes	yes	no*	
AMP	The AMP document must be approved by the contracted CAMO/CAO(-CAM).		If there is no CAMO/CAO(-CAM), the AMP must be declared by the owner.	
			If there is a contracted CAMO/CAO(-CAM), the AMP must be approved by the CAMO/CAO(-CAM).	
	If ML.A.302(e) conditions are met, producing an AMP document is not required.			
Maintenance	By a maintenance organisation		By a maintenance organisation or by independent certifying staff or pilot-owner**	
AR and ARC	By a maintenance organisation*** or by the contracted CAMO/CAO(-CAM) or by the competent authority		By a maintenance organisation*** or independent certifying staff*** or by the CAMO/CAO(-CAM) (if contracted) or by the competent authority	

	Aircraft (other than balloons and sailplanes)			
	non Part-NCO	Part-NCO		
		commercial ATO/DTO	Non-ATO/DTO or non-commercial ATO/DTO	
Contract with CAMO/CAO (-CAM) required?	yes	yes	no*	
АМР	The AMP document must be approved by the contracted CAMO/CAO(-CAM).		If there is no CAMO/CAO(-CAM), the AMP must be declared by the owner.	
			If there is a contracted CAMO/CAO(-CAM), the AMP must be approved by the CAMO/CAO(-CAM).	
	If ML.A.302(e) conditions are met, producing an AMP document is not required.			
Maintenance	By a maintenance organisation		By a maintenance organisation or by independent certifying staff or the pilotowner**	
AR and ARC	By a maintenance organisation*** or by the contracted CAMO/CAO(-CAM) or by the competent authority		By a maintenance organisation*** or independent certifying staff*** or by the CAMO/CAO(-CAM) (if contracted) or by the competent authority	

<sup>\*:</sup> A CAMO/CAO(-CAM) is not required but the owner may decide to contract a CAMO/CAO(-CAM).

<sup>\*\*:</sup> in the limit of their privileges

<sup>\*\*\*:</sup> together with the 100-h/annual inspection

Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

## GM1 ML.A.201(e) Responsibilities

ED Decision 2020/002/R

#### **COMMERCIAL ATO/DTO**

According to industry practice, the following are examples of aircraft not considered to be operated by a commercial ATO or a commercial DTO:

- (a) Aircraft operated by an organisation holding an ATO certificate or a DTO declaration, created with the aim of promoting aerial sport or leisure aviation, on the conditions that:
  - (1) the aircraft is operated by the organisation on the basis of ownership or dry lease;
  - (2) the ATO/DTO is a non-profit organisation; and
  - (3) whenever non-members of the organisation are involved, such flights represent only a marginal activity of the organisation.
- (b) Aircraft operated under Part-NCO by its owner together with an ATO or a DTO flight instructor for the purpose of training, when the contract between the owner and the training organisation and the procedures of the training organisation allow it. The continuing airworthiness of such aircraft remains under the responsibility of the owner, or of the CAMO or CAO contracted by the owner, if the owner has elected to contract a CAMO or CAO in accordance with <u>ML.A.201(f)</u>.
- (c) Aircraft used for very limited training flights due to the specific configuration of the aircraft and limited need for such flights.

## GM1 ML.A.201(f) Responsibilities

ED Decision 2020/002/R

If an owner (see definition in point  $\underline{\mathsf{ML.1(c)(3)}}$ ) decides not to make a contract with a CAMO or CAO, the owner is fully responsible for the proper accomplishment of the corresponding continuing airworthiness management tasks. As a consequence, it is expected that the owner properly and realistically self-assesses his or her own competence to accomplish those tasks or otherwise seek the necessary expertise.

## GM1 ML.A.201(h) Responsibilities

ED Decision 2020/002/R

#### USE OF AIRCRAFT INCLUDED IN AN AOC FOR NON-COMMERCIAL OPERATIONS OR SPECIALISED OPERATIONS

As point (h) is not a derogation, points <u>ML.A.201(e)</u> and (f) are still applicable. Therefore, the management of continuing airworthiness of the aircraft by the CAMO or CAO of the AOC holder means that the other operator has established a written contract as per <u>Appendix I</u> to Part-ML with this CAMO or CAO.

Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

# **ML.A.202 Occurrence reporting**

Regulation (EU) 2019/1383

- (a) Without prejudice to the reporting requirements set out in Annex II (Part-145) and Annex Vc (Part-CAMO), any person or organisation responsible in accordance with point <u>ML.A.201</u> shall report any identified condition of an aircraft or component which endangers flight safety to:
  - (1) the competent authority designated by the Member State of registry of the aircraft, and, when different to the Member State of registry, to the competent authority designated by the Member State of the operator;
  - (2) to the organisation responsible for the type design or supplemental type design.
- (b) The reports referred to in point (a) shall be made in a manner determined by the competent authority referred to in point (a) and shall contain all pertinent information about the condition known to the person or organisation making the report.
- (c) Where the maintenance or the airworthiness review of the aircraft is carried out on the basis of a written contract, the person or the organisation responsible for those activities shall also report any condition referred to in point (a) to the owner of the aircraft and, when different, to the CAMO or CAO concerned.
- (d) The person or organisation shall submit the reports referred to in points (a) and (c) as soon as possible, but no later than 72 hours from the moment when the person or organisation identified the condition to which the report relates, unless exceptional circumstances prevent this.

# AMC1 ML.A.202 Occurrence reporting

ED Decision 2020/002/F

Accountable persons or organisations should ensure that the design approval holder (DAH) receives adequate reports of occurrences for that aircraft or component, to enable the DAH to issue appropriate service instructions and recommendations to all owners or operators.

Accountable persons or organisations should establish a liaison with the DAH to determine whether published or proposed service information will resolve the problem or to obtain a solution to a particular problem.

AMC-20 'General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances' provides further details on occurrence reporting (AMC 20-8).



## SUBPART C — CONTINUING AIRWORTHINESS

# ML.A.301 Continuing-airworthiness tasks

Regulation (EU) 2019/1383

The aircraft continuing airworthiness and the serviceability of operational and emergency equipment shall be ensured by:

- (a) the accomplishment of pre-flight inspections;
- (b) the rectification of any defect and damage affecting safe operation in accordance with data specified in points ML.A.304 and ML.A.401, as applicable, while taking into account the minimum equipment list ('MEL') and configuration deviation list, when they exist;
- (c) the accomplishment of all maintenance in accordance with the AMP referred to in point ML.A.302;
- (d) the accomplishment of any applicable:
  - (1) airworthiness directive ('AD');
  - (2) operational directive with a continuing-airworthiness impact;
  - (3) continuing-airworthiness requirement established by the Agency;
  - (4) measure required by the competent authority as an immediate reaction to a safety problem;
- (e) the accomplishment of modifications and repairs in accordance with point ML.A.304;
- (f) maintenance check flights, when necessary.

# GM1 ML.A.301(f) Continuing airworthiness tasks

ED Decision 2020/002/R

### **MAINTENANCE CHECK FLIGHTS (MCFs)**

- (a) The definition of and operational requirements for MCFs are laid down in the Air Operations Regulation<sup>1</sup> and are carried out under the control and responsibility of the aircraft operator. During the flight preparation, the flight and the post-flight activities as well as for the aircraft handover, the processes requiring the involvement of maintenance personnel or organisations should be agreed in advance with the operator. The operator should consult as necessary with the person or organisation in charge of the airworthiness of the aircraft.
- (b) Depending on the aircraft defect and the status of the maintenance activity performed before the flight, different scenarios are possible and are described below:
  - The aircraft maintenance manual (AMM), or any other maintenance data issued by the DAH, requires that an MCF be performed before completion of the maintenance ordered. In this scenario, a certificate after incomplete maintenance, when in compliance with ML.A.801(f) or 145.A.50(e), should be issued and the aircraft can be flown for this purpose under its airworthiness certificate.

Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1) (<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1568896271265&uri=CELEX:32012R0965">https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1568896271265&uri=CELEX:32012R0965</a>).



Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

Due to incomplete maintenance, it is advisable to open a new entry into the ML.A.305 aircraft logbook, to identify the need for an MCF. This new entry should contain or refer to, as necessary, data relevant to perform the MCF, such as aircraft limitations and any potential effect on operational and emergency equipment due to incomplete maintenance, maintenance data reference and maintenance actions to be performed after the flight.

After a successful MCF, the maintenance records should be completed, the remaining maintenance actions finalised and a certificate of release to service (CRS) issued.

- (2) Based on its own experience and for reliability considerations and/or quality assurance, an operator, owner, CAO or CAMO may wish to perform an MCF after the aircraft has undergone certain maintenance while maintenance data does not call for such a flight. Therefore, after the maintenance has been properly carried out, a CRS is issued and the aircraft airworthiness certificate remains valid for this flight.
- (3) After troubleshooting of a system on the ground, an MCF is proposed by the maintenance personnel or organisation as confirmation that the solution applied has restored the normal system operation. During the maintenance performed, the maintenance instructions are followed for the complete restoration of the system and therefore a CRS is issued before the flight. The airworthiness certificate is valid for the flight. An open entry requesting this flight may be recorded in the aircraft logbook.
- (4) An aircraft system has been found to fail, the dispatch of the aircraft is not possible in accordance with the maintenance data, and the satisfactory diagnosis of the cause of the fault can only be made in flight. The process for this troubleshooting is not described in the maintenance data and therefore scenario (1) does not apply. Since the aircraft cannot fly under its airworthiness certificate because it has not been released to service after maintenance, a permit to fly issued in accordance with Regulation (EU) No 748/2012 is required.

After the flight and the corresponding maintenance work, the aircraft can be released to service and continue to operate under its original certificate of airworthiness.

(c) For certain MCFs, the data obtained or verified in flight will be necessary for assessment or consideration after the flight by the maintenance personnel or organisation prior to issuing the maintenance release. For this purpose, when the maintenance staff cannot perform these functions in flight, it may rely on the crew performing the flight to complete this data or to make statements about in-flight verifications. In this case, the maintenance staff should appoint the crew personnel to play such a role on their behalf and, before the flight, brief the appointed crew personnel on the scope, functions and the detailed process to be followed, including required reporting information after the flight and reporting means, in support of the final release to service to be issued by the certifying staff.

# ML.A.302 Aircraft maintenance programme

Regulation (EU) 2019/1383

- (a) The maintenance of each aircraft shall be organised in accordance with an AMP.
- (b) The AMP and any subsequent amendments thereto shall be, alternatively:
  - (1) declared by the owner in accordance with point (c)(7) of point ML.A.302, where the continuing airworthiness of the aircraft is not managed by a CAMO or CAO;
  - (2) approved by the CAMO or CAO responsible for managing the continuing airworthiness of the aircraft.

The owner declaring the AMP in accordance with point (b)(1) or the organisation approving the AMP in accordance with point (b)(2) shall keep the AMP updated.

- (c) The AMP:
  - (1) shall clearly identify the owner of the aircraft and the aircraft to which it relates, including any installed engine and propeller, as applicable;
  - (2) shall include, alternatively:
    - (a) the tasks or inspections contained in the applicable minimum inspection programme ('MIP') referred to in point (d);
    - (b) the instructions for continuing airworthiness ('ICA') issued by the design approval holder ('DAH');
  - (3) may include additional maintenance actions to those referred to in point (c)(2) or maintenance actions alternative to those referred to in point (c)(2)(b) at the proposal of the owner, CAMO or CAO, once approved or declared in accordance with point (b). Alternative maintenance actions to those referred to in point (c)(2)(b) shall not be less restrictive than those set out in the applicable MIP;
  - (4) shall include all the mandatory continuing airworthiness information, such as repetitive ADs, the airworthiness limitation section ('ALS') of the ICAs, and specific maintenance requirements contained in the type certificate data sheet ('TCDS');
  - (5) shall identify any additional maintenance tasks to be performed because of the specific aircraft type, aircraft configuration and type and specificity of operation, whereas the following elements shall be taken into consideration as a minimum:
    - (a) specific installed equipment and modifications of the aircraft;
    - (b) repairs carried out in the aircraft;
    - (c) life-limited components and flight-safety-critical components;
    - (d) maintenance recommendations, such as time between overhaul ('TBO') intervals, issued through service bulletins, service letters, and other non-mandatory service information;
    - (e) applicable operational directives or requirements related to the periodic inspection of certain equipment;
    - (f) special operational approvals;
    - (g) use of the aircraft and operational environment;
  - (6) shall identify whether the Pilot-owners are authorised to perform maintenance;

- (7) when declared by the owner, shall contain a signed statement by which the owner declares that this is the AMP for the particular aircraft registration and that he is fully responsible for its content and, in particular, for any deviations from the DAH's recommendations;
- (8) when approved by the CAMO or CAO, shall be signed by this organisation, which shall retain records with the justification for any deviation introduced to the DAH's recommendations;
- (9) shall be reviewed at least annually in order to assess its effectiveness, and this review shall be performed, alternatively:
  - (a) in conjunction with the airworthiness review of the aircraft by the person who performs such an airworthiness review;
  - (b) by the CAMO or CAO managing the continuing airworthiness of the aircraft in those cases where the review of the AMP is not performed in conjunction with an airworthiness review.

If the review shows deficiencies of the aircraft linked with deficiencies in the content of the AMP, the AMP shall be amended accordingly. In this case the person performing the review shall inform the competent authority of the Member State of registry if he does not agree with the measures amending the AMP taken by the owner, CAMO or CAO. The competent authority shall decide which amendments to the AMP are necessary, raising the corresponding findings and, if necessary, reacting in accordance with point ML.B.304.

### (d) A MIP:

- (1) shall contain the following inspection intervals:
  - (a) for aeroplanes, touring motor gliders ('TMGs') and balloons, every annual or 100h interval, whichever comes first, to which a tolerance of 1 month or 10 h may be applied. The next interval shall be calculated as from the time the inspection takes place;
  - (b) for sailplanes and powered sailplanes other than TMG, every annual interval to which a tolerance of 1 month may be applied. The next interval shall be calculated as from the time the inspection takes place;
- (2) shall contain the following, as applicable to the aircraft type:
  - (a) servicing tasks as required by the DAH's requirements;
  - (b) inspection of markings;
  - (c) review of weighing records and weighing in accordance with Regulation (EU) No 965/2012, Regulation (EU) 2018/395 and Regulation (EU) 2018/1976;
  - (d) operational test of transponder (if installed);
  - (e) functional test of the pitot-static system;
  - (f) in the case of aeroplanes:
    - (i) operational tests for power and revolutions per minute (rpm), magnetos, fuel and oil pressure, engine temperatures;
    - (ii) for engines equipped with automated engine control, the published run-up procedure;

- (iii) for dry-sump engines, engines with turbochargers and liquid-cooled engines, an operational test for signs of disturbed fluid circulation;
- (g) inspection of the condition and attachment of the structural items, systems and components corresponding to the following areas:
  - (i) for aeroplanes:
    - airframe, cabin and cockpit, landing gear, wing and centre section, flight controls, empennage, avionics and electrics, power plant, clutches and gearboxes, propeller and miscellaneous systems, such as the ballistic rescue system;
  - (ii) for sailplanes and powered sailplanes:
    - airframe, cabin and cockpit, landing gear, wing and centre section, empennage, avionics and electrics, power plant (for powered sailplanes) and miscellaneous systems, such as removable ballast and/or drag chute and controls, as well as water ballast system;
  - (iii) for hot-air balloons:
    - envelope, burner, basket, fuel containers, equipment and instruments;
  - (iv) for gas balloons:
    - envelope, basket, equipment and instruments.

As long as this Annex does not specify an MIP for airships and rotorcraft, their AMP shall be based on the ICA issued by the DAH, as referred to in point (c)(2)(b).

- (e) By derogation from points (b) and (c), a declaration by the owner or an approval by a CAMO or CAO is not required, and an AMP document is not required to be produced when the following conditions are met:
  - (1) all the ICA issued by the DAH are being followed without any deviations;
  - (2) all maintenance recommendations, such as TBO intervals, issued through service bulletins, service letters, and other non-mandatory service information, are being followed without any deviations;
  - (3) there are no additional maintenance tasks to be performed resulting from any of the following:
    - (a) specific installed equipment and modifications of the aircraft;
    - (b) repairs carried out in the aircraft;
    - (c) life-limited components and flight-safety-critical components;
    - (d) special operational approvals;
    - (e) use of the aircraft and operational environment.
  - (4) Pilot-owners are authorised to perform Pilot-owner maintenance.

This derogation is not applicable if the pilot-owner or, in case of jointly-owned aircraft, any of the pilot-owners is not authorised to perform Pilot-owner maintenance because this has to be specified in the declared or approved AMP.

(f) If the conditions provided for in points (e)(1) to (e)(4) are met, the AMP applicable to the aircraft shall consist of the following:



Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

- (1) the ICA issued by the DAH;
- (2) the maintenance recommendations, such as TBO intervals, issued through service bulletins, service letters, and other non-mandatory service information;
- (3) the mandatory continuing airworthiness information, such as repetitive ADs, the ALS of the ICA and specific maintenance requirements contained in the TCDS;
- (4) the tasks due to specific operational or airspace directives or requirements in relation to particular instruments and equipment.

# AMC1 ML.A.302 Aircraft maintenance programme

D Decision 2020/002/R

- (a) The aircraft should only be maintained according to one maintenance programme at a given point in time. Where an owner wishes to change from one programme to another (e.g. from an AMP based on minimum inspection programme (MIP) to an AMP based on DAH's data), certain additional maintenance may need to be carried out on the aircraft to implement this transition.
- (b) The maintenance programme may take the format of the standard template provided in <a href="MLLA.302">AMC2</a>
  <a href="MLLA.302">ML.A.302</a> (EASA Form AMP). This maintenance programme may include several aircraft registrations as long as the maintenance requirements for each registration are clearly identified.

Annex Vb (Part-ML)

SECTION A — TECHNICAL

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# AMC2 ML.A.302 Aircraft maintenance programme

ED Decision 2020/002/R

## **EASA FORM AMP**

The following EASA Form AMP may be used to produce the AMP:

	Part-ML aircraft maintenance programme (AMP)					
	Aircraft identification					
1	Registration(s):	Type:		Serial no(s):		
	Owner:					
	Basis	for the main	tenance programme			
2	Design approval holder (DAH) instructions for Minimum inspection programme (MIP) a			ıs detai	led	
	continued airworthiness (ICA)		in the latest revision of AMC1 ML.A.302(d)			
			Other MIP complying with ML.A.302(d)			
			(List the tasks in Ap	pendix A)		
			al holder (DAH)			
_			uing airworthiness (IC		_	
3	Equipment manufacturer and type	<u> </u>	1	rence (revision/date r	-	
_	. 6		assuming the latest	revision will always b	e used	)
	Aircraft (ather than balloons		T			
3a 3b	Aircraft (other than balloons) Engine (if applicable)					
3c	Propeller (if applicable)					
	balloons					
3d	Envelope (only for balloons)					
3e	Basket(s) (only for balloons)					
30	Busice(s) (only for bulloons)					
3f	Burner(s) (only for balloons)					
3g	Fuel cylinders (only for					
	balloons)					
	Additional maintenance require	ments to the	DAH' ICA or to the MI	P (applicable to all A	MPs)	
4	Indicate if any of the following types of repetitive maintenance are included in the AMP Yes No				No	
	(when replying 'YES', list the specific requirements in Appendix B)					
	Maintenance due to specific equipment and modifications					
	Maintenance due to repairs					
	Maintenance due to life-limited components (this should be only if the MIP is used.					
	Otherwise, this data is already part of the DAH's data used as a basis for the AMP.)  Maintenance due to mandatory continuing airworthiness information (airworthiness					
	limitations (ALIs), certification maintenance requirements (CMRs), specific requirements					
	in the TCDS, etc.)		(	omo requiremento		
	Maintenance recommendations, s	uch as time be	etween overhaul (TBO	) intervals, issued		
	through service bulletins, service letters, and other non-mandatory service information					
	Maintenance due to repetitive AD	S				
	Maintenance due to specific opera	ational/airspac	e directives/requirem	ents (altimeter,		
	compass, transponder, etc.)					
	Maintenance due to the type of o	peration or op	erational approvals			
	Other					
_	Maintenance tasks alternative to the DAH's ICA (not less restrictive than the MIP)					
5	Indicate if there is any maintenant			when 'YES', list the	Yes	No
l	specific alternative maintenance tasks in Appendix C)			1		



Annex Vb (Part-ML)

SECTION A — TECHNICAL

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Pilo	Pilot-owner maintenance (only for balloons not operated under Subpart-ADD, or sailplanes not operated under Subpart-DEC, or other aircraft operated under Part-NCO)				
	Remark: pilot-owner maintenance is not allowed for airc			O/DTO	)
6	Does the pilot-owner perform pilot-owner maintenance (		-	Yes	No
	If yes, enter the name of the pilot-owner(s) authorised to	•	h maintenance:		
	Pilot-owner name:_(NOTE)Licence (NOTE)	number:			
	Signature:Date:				
	NOTE: It is possible to refer to a list in the case of jointly o	wned aircraf	t.		
	Approval/declaration of the maintenance program			1)	
7	Declaration by the owner:		by the contracted CAN		0:
	'I hereby declare that this is the maintenance		reference no of the CA		
	programme applicable to the aircraft referred to in				
	block 1, and I am fully responsible for its content and, in	Signature/	'name/date:		
	particular, for any alternatives tasks to the DAH's data.'	J. G. G. G. G. G.			
	Signature/name/date:				
	Certification statem	ent			
8	'I will ensure that the aircraft is maintained in accordance		intenance programm	e and t	hat
"	the maintenance programme will be reviewed and update			c ana t	···u·
	Signed by the person/organisation responsible for the cor			oft.	
	according to ML.A.201:	itilialing all w	or trilliess or trie aircra	111	
	Owner/Lessee/operator CAMO/CAO				
	Name of owner/lessee/operator or CAMO/CAO approval	number:			
		number.			
	Address:				
	Telephone/fax:				
	Email:				
_	Signature/date: Appendices attached:				
9	l ··· — —				
	Appendix A YES NO				
	Appendix B YES NO				
	Appendix C YES NO				
	Appendix D YES NO NO				
Appendix A — Minimum inspection programme (MIP)					
(only applicable if a MIP different from the one described in AMC1 ML.A.302(d) is used — see Section 2 above)					
Det	Detail the tasks and inspections contained in the MIP being used.				
App	endix B — Additional maintenance requirements				
(include only if necessary — see Section 4 above)					
	appendix is supposed to include only the tasks which are in	icluded in the	AMP, either at the		
	ommended interval or at a different one.	val difforance	os should be kent but	ho	
	(All repetitive maintenance tasks not included here, or the interval differences should be kept by the				
	CAMO/CAO (when contracted) in their files with their corresponding justifications. Appendix D may optionally be used. Nevertheless, the owner/CAMO/CAO is responsible for taking into account all instructions, even if				
	· · · · · · · · · · · · · · · · · · ·	_			-
	y are not adopted and listed here. The person performing th				sible
	the completeness of this appendix, but may do some sampli	ng as part of	tne investigations an	a the	
find	findings discovered during the physical review).				
1	Task description Reference	ces	Interval		



Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

		(tick box if the selected inter differs from that required in	
		referenced document)	
Maintenance due to specific equipment and	modifications		
			一
Maintonones due to voncius			
Maintenance due to repairs			$\overline{}$
			<u> </u>
Maintenance due to life-limited component	•	VIIP is used. Otherwise, this da	ta is
already part of the DAH's data used as the b	pasis for the AMP.)		
Maintenance due to mandatory continuing in the TCDS, etc.)	airworthiness instructions (A	Lls, CMRs, specific requiremen	its
in the 1CD3, etc.)			$\overline{}$
Maintenance recommendations, such as TB	O intervals, issued through se	ervice bulletins, service letters	,
and other non-mandatory service informati	_	•	
			П
Emergency locator transmitters and			
personal locator beacon — annual testing	EASA SIB 2019-09	1 Year	
(if not using MIP or equivalent ICA task)			_
Transponder test	EASA SIB 2011-15	2 Years	Ш
			$\Box$
Maintenance due to repetitive ADs			
Wallice lance due to repetitive ADS			$\overline{\Box}$
			<u>ᆜ</u>
			Ш
Maintenance due to specific operational/ain transponder, etc.)	rspace directives/requiremer	its (altimeter, compass,	
			$\Box$
			一
Maintenance due to the type of operation of	or operational approvals		_
Other		_	
			П
			믐
			Ш
Appendix C — Maintenance tasks alternativ	e to the DAH's ICA (not less i	restrictive than the MIP)	
	if necessary — see Sections 5 above		
Task description Recommended int	erval Alternative inspect	ion/task Amended interv	al
When the DAH's ICA are used as the basis for		,	
to the DAH's ICA, which are included in the A			
(When a CAMO/CAO is contracted, all elemen		om the DAH's ICA should be ke	pt

by the CAMO/CAO and the organisation should provide a copy of these justifications to the owner)



Annex Vb (Part-ML)

SECTION A — TECHNICAL

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#### Appendix D — Additional information (optional)

This appendix may optionally be used to provide additional information, such as the complete list of AMP tasks or the list of documents (e.g. service bulletins) considered during the development of the AMP.

EASA Form AMP, Issue 1

## **GM1 ML.A.302** Aircraft maintenance programme

ED Decision 2020/002/R

The responsibilities associated with maintenance programmes developed in accordance with ML.A.302 are the following:

- (a) If the owner has contracted a CAMO or CAO in order to manage the continuing airworthiness of the aircraft, this organisation is responsible for developing and approving a maintenance programme which:
  - (1) indicates whether this programme is based on data from the DAH or on the MIP described in ML.A.302(d);
  - (2) identifies the owner and the specific aircraft, engine, and propeller (as applicable);
  - (3) includes all mandatory continuing airworthiness information and any additional tasks derived from the assessment of the DAH's instructions;
  - (4) justifies any deviations from the DAH's instructions; when the DAH's instructions are the basis for the AMP development, these deviations should not fall below the requirements of the MIP; and
  - (5) is customised to the particular aircraft type, configuration and operation, in accordance with ML.A.302(c)(5).
- (b) If the owner has not contracted a CAMO or CAO in order to manage the continuing airworthiness of the aircraft, then the owner is responsible for developing and declaring the maintenance programme, assuming full responsibility for its content, and for any deviations from the DAH's instructions (ref. ML.A.201(f) and ML.A.302(c)(7)) and the possible consequences of such deviations. In this case, these deviations do not need to be justified, but are to be identified in the AMP. However, the maintenance programme still needs to comply with the requirements contained in ML.A.302(c), in particular with the obligation to not fall below the requirements of the MIP and to comply with the mandatory continuing airworthiness information.
- (c) The content of the owner-declared maintenance programme cannot be challenged up front either by the competent authority or by the contracted maintenance organisation. This declared maintenance programme is the basis for adequate planning of maintenance, as well as for the ARs and the aircraft continuing airworthiness monitoring (ACAM) inspections in accordance with ML.B.303. Nevertheless, the maintenance programme will be subject to periodic reviews at the occasion of the AR and, in case of discrepancies, linked with deficiencies in the content of the maintenance programme, the owner shall amend the maintenance programme accordingly, as required by ML.A.302(c)(9).



- (d) When the competent authority is notified of deficiencies linked with the content of the declared maintenance programme for a particular aircraft (in case no agreement is reached between the owner and the AR staff about the changes required in the maintenance programme), the competent authority should contact the owner, request a copy of the maintenance programme, decide which amendment to the AMP is necessary and raise the associated finding (ref. ML.A.302(c)(9)). If necessary, the competent authority may also react in accordance with ML.B.304. Based on the information received, the reported deficiencies and the identified risks, the competent authority may in addition adapt the ACAM programme accordingly (ref. ML.B.303).
- (e) Although there is no requirement for the owner to send a copy of the maintenance programme to the competent authority, this does not prevent the competent authority from requesting at any time the owner to send information about, or a copy of the AMP, even if deficiencies have not been reported (see <u>AMC1 ML.B.201</u>).
- (f) Since the maintenance programme has to identify the alternatives tasks to the DAH's instructions, the ARs and ACAM inspections can place emphasis on the inspection of the areas affected by those deviations in order to make sure that the maintenance programme is effective.
- (g) Since the competent authority is not responsible for the content of a declared maintenance programme, the competent authority does not authorise the accomplishment of the scheduled maintenance to deviate from the AMP content (other than the tolerances provided for in ML.A.302(d)(1)). In such cases, the owner may declare an amended AMP.

# **GM2 ML.A.302** Aircraft maintenance programme

ED Decision 2020/002/R

The following table provides a summary of the provisions contained in ML.A.302 in relation to the content of the maintenance programme, its approval and its link with the AR:

	OPTION 1	OPTION 2
Responsibility for developing the AMP	Contracted CAMO or CAO	Owner (if allowed under ML.A.201(f))
Approval/declaration of the maintenance programme	Approved by the CAMO or CAO, or none required in case of compliance with ML.A.302(e)	Declaration by the owner or none required in case of compliance with ML.A.302(e)
Basis for the maintenance programme	MIP (not applicable to rotorcraft and airships) or ICA issued by the	
Deviations from the DAH's ICA	Deviations from the DAH's instructions are justified. The CAMO/CAO keeps a record of the justifications and provides a copy of them to the owner.	Deviations do not need to be justified.
AMP annual review  In conjunction with the AR, by the AR staff or, if not per with the AR (e.g. in case of ARC extension), by the CAM		

# AMC1 ML.A.302(c) Aircraft maintenance programme

ED Decision 2020/002/F

When evaluating an alternative to a maintenance task issued or recommended by the DAH, such as the extension of TBO intervals, or when considering not to include a maintenance task issued or recommended by the DAH, a risk-based approach should be taken, considering aspects such as the

operation of aircraft, type of aircraft, hours and years in service, maintenance of the aircraft, compensating measures, redundancy of components, etc.

The following table provides more details of aspects that should be considered:

	Examples
OPS approval	HIGHER RISK: commercial operation, commercial flight training MEDIUM RISK: flight training by an association, non-commercial specialised operations (SPO) LOWER RISK: private
Flight rules	HIGHER RISK: instrument flight rules (IFR) MEDIUM RISK: visual flight rules (VFR) at night LOWER RISK: VFR by day
Aircraft weight	HIGHER RISK: Other than ELA1 MEDIUM RISK: ELA1 aircraft other than light sport aeroplanes (LSA), very light aircraft (VLA), sailplanes and powered sailplanes LOWER RISK: LSA, VLA, sailplanes and powered sailplanes
Who manages the airworthiness of the aircraft?	HIGHER RISK: owner LOWER RISK: CAMO/CAO
Who maintains the aircraft?	HIGHER RISK: pilot-owner  MEDIUM RISK: independent certifying staff LOWER RISK: maintenance organisation
Time in service (flight hours, years)	HIGHER RISK: very high number of hours or years MEDIUM RISK: medium number of hours or years LOWER RISK: low number of hours or years
Aircraft utilisation	HIGHER RISK: less than 50 h per year MEDIUM RISK: around 200 h per year LOWER RISK: more than 400 h per year
ACAM findings	HIGHER RISK: numerous findings in ACAM or ramp inspections MEDIUM RISK: few findings in ACAM inspections LOWER RISK: rare findings in ACAM inspections
System redundancy (for components such as engine/propeller)	HIGHER RISK: single-engined aircraft LOWER RISK: multi-engined aircraft
Supplementary maintenance measures	HIGHER RISK: no supplementary measures LOWER RISK: supplementary measures (such as oil analysis, engine data monitoring, boroscope inspections, corrosion inspections, etc.)
Risk factor of the component failure	HIGHER RISK: engine failure on a helicopter MEDIUM RISK: engine failure on an aeroplane LOWER RISK: sailplane, or powered sailplane

The above information may be useful for CAMOs and CAOs when developing and approving maintenance programmes, and for the AR staff performing ARs and reviewing the effectiveness of the declared maintenance programme. It may also be useful for the owner in order to take an informed decision before introducing deviations from the DAH's recommendations. Nevertheless, as allowed by ML.A.302(c)(7) and explained in GM ML.A.302, when the owner issues a declaration for the maintenance programme, they do not need to justify such deviations.

# AMC1 ML.A.302(c)(9) Aircraft maintenance programme

ED Decision 2020/002/R

#### **ANNUAL REVIEW OF THE AMP**

- (a) During the annual review of the maintenance programme, as required by point ML.A.302(c)(9), the following should be taken into consideration:
  - (1) the results of the maintenance performed during that year, which may reveal that the current maintenance programme is not adequate;
  - (2) the results of the AR performed on the aircraft, which may reveal that the current maintenance programme is not adequate;
  - (3) revisions introduced on the documents affecting the programme basis, such as the ML.A.302(d) MIP or the DAH's data;
  - (4) changes in the aircraft configuration, and type and specificity of operation;
  - (5) changes in the list of pilot-owners; and
  - (6) applicable mandatory requirements for compliance with Part 21, such as airworthiness directives (ADs), airworthiness limitations, certification maintenance requirements and specific maintenance requirements contained in the type certificate data sheet (TCDS).
- (b) When reviewing the effectiveness of the AMP, the AR staff (or the CAMO/CAO staff if the review of the AMP is not performed in conjunction with an AR) may need to review the maintenance carried out during the last 12 months, including unscheduled maintenance. To this end, he or she should receive the records of all the maintenance performed during that year from the owner/CAMO/CAO.
- (c) When reviewing the results of the maintenance performed during that year and the results of the AR, attention should be paid as to whether the defects found could have been prevented by introducing in the maintenance programme certain DAH's recommendations, which were initially disregarded by the owner, CAMO or CAO.

# GM1 ML.A.302(c)(2)(b) Aircraft maintenance programme

D Decision 2020/002/R

'DAH' refers to the holder of a type certificate (TC), restricted type certificate, supplemental type certificate (STC), European Technical Standard Order (ETSO) authorisation, repair or change to the type design.

The 'instructions for continuing airworthiness ('ICA') issued by the design approval holder ('DAH')' do not include the data issued by other original equipment manufacturer (OEM), except when the DAH's ICA makes clear reference to such OEM data.

Tasks or intervals (e.g. escalations) alternative to those of the DAH's ICA and selected by the CAMO or CAO for the AMP do not need to be approved by the competent authority. Justification of these deviations are to be kept by the CAMO or CAO.



# GM1 ML.A.302(c)(3) Aircraft maintenance programme

ED Decision 2020/002/R

#### ALTERNATIVE MAINTENANCE ACTIONS

'Maintenance actions alternative to those referred to in point (c)(2)(b)' refer to when the DAH's ICA are used as the basis for the AMP development and the CAMO, CAO or owner (as applicable), when developing the AMP, decides to deviate from certain of these DAH's instructions, introducing, for example, a less frequent interval or a different task type (inspection instead of check) than the one established by the ICA.

These alternative maintenance actions shall not be less restrictive than those set out in the applicable MIP. This means that the extent of the maintenance to be covered by the deviating task cannot be less than the extent of the corresponding task in the MIP in terms of frequency and task type.

Examples of alternative maintenance actions:

ICA task	AMP proposed alternative	MIP task	Alternative acceptable Yes/No
Inspection XX 6 months interval	Inspection XX 12 months interval	Inspection XX 12 months interval	Yes
Inspection XX 12 months interval	Inspection XX 24 months interval	Inspection XX 12 months interval	No
Inspection XX 24 months interval	Inspection XX 36 months interval	Inspection XX 12 months interval	No (24 months to be kept)
Functional test system XX	Operational test system XX (same interval) or general visual inspection system XX (same interval)	Functional test system XX (same interval)	No*
Operational test system XX	Functional test system XX (same interval)	Operational test system XX (same interval)	Yes*
Inspection XX 24 months interval	Inspection XX 36 months	None relevant	Yes
Functional test	General visual inspection	None relevant	Yes

<sup>\*</sup>A functional test is considered more restrictive than an operational test.

Remark: the above does not apply to one-time interval extensions, for which ML.A.302(d)(1) provides 1-month or 10-h tolerance (i.e. permitted variation) for aeroplanes, touring motor gliders (TMGs) and balloons and 1-month tolerance for sailplanes and powered sailplanes other than TMGs.

# GM1 ML.A.302(c)(4) Aircraft maintenance programme

ED Decision 2020/002/R

#### MANDATORY CONTINUING AIRWORTHINESS INFORMATION OTHER THAN ADS

'Mandatory continuing airworthiness information' other than ADs may be different from one aircraft to an other, depending on the type certification basis used. The aircraft may have been certified before the term 'ALS (Airworthiness Limitations Section)' was introduced in the certification specification (or airworthiness code). However, the intent is that the AMP (whether based on MIP or not) includes all mandatory scheduled maintenance requirements identified during the initial airworthiness activity, by the TC holder, STC holder and, if applicable, engine TC holder. These requirements may be identified under a variety of designations such as:

Airworthiness limitations or Airworthiness limitation items (ALI)



Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

- Certification maintenance requirements (CMR)
- Safe life items or safe life limits or safe life limitations
- Life-limited parts (LLP)
- Time limits
- Retirements life
- Mandatory Inspections or Mandatory Airworthiness Inspections
- Fuel airworthiness limitations or Fuel tank safety limitations

In case of doubt, it is advised to check the TCDS or contact the DAH.

The intervals of the mandatory continuing airworthiness information cannot be extended by a CAMO/CAO. The escalation of such tasks is to be approved by the Agency.

# AMC1 ML.A.302(d) Aircraft maintenance programme

ED Decision 2021/009/R

This AMC contains an acceptable MIP for aeroplanes of 2 730 kg maximum take-off mass (MTOM) and below, and for ELA2 aircraft other than rotorcraft or airships, grouped in the following categories:

- aeroplanes of 2 730 kg MTOM and below;
- ELA2 sailplanes and ELA2 powered sailplanes; and
- ELA2 balloons.

These MIPs already comply with the requirements of ML.A.302(d) and may be used in order to define the basic information for the maintenance programme as required by ML.A.302(c)(2)(a). However, the maintenance programme must be customised as required by ML.A.302(c)(5), which may be achieved by using the standard template contained in AMC ML.A.302.

It should be noted that using the 1-month tolerance permitted by ML.A.302(d)(1) for the annual inspection may result in an expired ARC.

MIP for aeroplanes of 2 730 kg MTOM and below

To be performed at every annual/100-h interval, whichever comes first.

A tolerance of 1 month or 10 h may be applied. The next interval shall be calculated from the time the inspection takes place.

Note 1: Use the manufacturer's maintenance manual to accomplish each task/inspection.

Note 2: Proper operation of backup or secondary systems and components should be performed wherever a check for improper installation/operation is carried out.

	Aeroplanes of 2 730 kg MTOM and below	
System/component/area	Task and inspection detail	
GENERAL		
General	Remove or open all necessary inspection plates, access doors, fairings, and cowlings. Clean the aircraft and aircraft engine as required.	
Lubrication/servicing	Lubricate and replenish fluids in accordance with the manufacturer's requirements.	
Markings	Check that side and underwing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate for national aviation authority (NAA)-registered aircraft is present, as well as other identification markings on fuselage in accordance with local (national) rules.	
Weighing	Review weighing record to establish accuracy against installed equipment. Weigh the aircraft as required by Part-NCO or Part-SPO, as applicable.	
Service life limits	Check the records that the service life limits and airworthiness limits are within the life time limits of the maintenance programme.	
Software	Check for updated software/firmware status and databases for engine and equipment.	
AIRFRAME		
Fabric and skin	Inspect for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings.  NOTE: When checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage.	
Fuselage structure	Check frames, formers, tubular structure, braces, and attachments. Inspect for signs of corrosion and cracks.	
Systems and components	Inspect for improper installation, apparent defects, and unsatisfactory operation.	
Pitot-static system	Inspect for security, damage, cleanliness, and condition. Drain any water from condensation drains.	
General	Inspect for lack of cleanliness and loose equipment that may foul the controls.	
Tow hooks	Inspect for condition of moving parts and wear. Check service life. Carry out operational test.	
CABIN AND COCKPIT		
Seats, safety belts and harnesses	Inspect for poor condition and apparent defects. Check for service life.	
Windows, canopies and windshields	Inspect for deterioration and damage, and for function of emergency jettison.	

	Aeroplanes of 2 730 kg MTOM and below	
System/component/area	Task and inspection detail	
Instrument panel assemblies	Inspect for poor condition, mounting, marking, and (where practicable) improper operation.  Check markings of instruments in accordance with the flight manual.	
Flight and engine controls	Inspect for improper installation and improper operation.	
Speed/weight/manoeuvre placard	Check that the placard is correct and legible, and accurately reflects the status of the aircraft.	
All systems	Inspect for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment.	
LANDING GEAR		
Shock-absorbing devices	Inspect for improper oleo fluid level. Inspect for wear and deformation of rubber pads, bungees, and springs.	
All units	Inspect for poor condition and insecurity of attachment, including the related structure.	
Retracting and locking mechanism	Inspect mechanism. Operational check.	
Linkages, trusses and members	Inspect for undue or excessive wear fatigue and distortion.	
Steering	Inspect the nose/tail wheel steering for proper function and wear.	
Hydraulic lines	Inspect for leakage. Check condition and replace if necessary.	
Electrical system	Inspect for chafing. Operational check of switches.	
Wheels Inspect for cracks, defects, and condition of bearings.		
Tires Inspect for wear and cuts.		
Brakes	Inspect for improper adjustment and wear. Carry out operational test.	
Floats and skis	Inspect for insecure attachment and apparent defects.	
WING AND CENTRE SECTION		
All components	Inspect all components of the wing and centre section assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure and insecurity of attachment.	
Connections	Inspect main connections (e.g. between wings, fuselage, wing tips) for proper fit, play within tolerances, wear or corrosion on bolts and bushings.	
FLIGHT CONTROLS		
Control circuit/stops	Inspect control rods and cables. Check that the control primary stops are secure and make contact.	
Control surfaces	Inspect aileron, flap, elevator, air brake and rudder assemblies, hinges, control connections, springs/bungees, tapes and seals.  Check full range of motion and free play.	
Trim systems	Inspect trim surfaces, controls, and connections. Check full range of motion.	
EMPENNAGE		
All components and systems	Inspect all components and systems that make up the complete empennage assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecure attachment, improper component installation, and improper component operation.	
AVIONICS AND ELECTRICS		
Batteries	Inspect for improper installation, improper charge, spillage and corrosion.	

	Aeroplanes of 2 730 kg MTOM and below
System/component/area	Task and inspection detail
Radio and electronic	Inspect for improper installation and insecure mounting.
equipment	Carry out ground function test.
Wiring and conduits	Inspect for improper routing, insecure mounting, and obvious defects.
Bonding and shielding	Inspect for improper installation, poor condition, chafing and wear of insulation.
Antennas	Inspect for poor condition, insecure mounting, and improper operation.
Lights	Operational check of the interior, exterior and instrument lightning
POWER PLANT (OTHER THA	·
Engine section	Inspect for visual evidence of oil, fuel or hydraulic leaks and sources of such leaks.
Studs and nuts	Inspect for looseness, signs of rotation and obvious defects.
Internal engine	Inspect for proper cylinder compression (record measures for each cylinder) and for metal particles or foreign matter in oil filter, screens and sump drain plugs.
Engine mounts	Inspect for cracks, looseness of mounting, and looseness of the engine to the engine-mount attachment.
Flexible vibration dampeners	Inspect for poor condition and deterioration.
Engine controls	Inspect for defects, improper travel, and improper safe tying.
Lines, hoses and clamps	Inspect for leaks, improper condition, and looseness.
Exhaust stacks	Inspect for cracks, defects, and improper attachment.
Turbocharger and intercooler	Inspect for leaks, improper condition, and looseness of connections and fittings. Check MP controller or density controller for leakage and free movement of controls. Check waste gate or overpressure relief valve for free movements.
Heating	Inspect cabin heating heat exchanger for improper condition and function. For exhaust heat exchanger, check CO (Carbon Monoxide) concentration.
Liquid cooling systems	Inspect for leaks and proper fluid level.
Electronic engine control	Inspect for signs of chafing, and proper electronics and sensor installation.
Accessories	Inspect for apparent defects in security of mounting.
All systems	Inspect for improper installation, poor general condition, defects and insecure attachment.
Cowling	Inspect for cracks and defects. Check cowling flaps.
Cooling baffles and seals	Inspect for defects, improper attachment, and wear.
TURBOPROP ENGINE	
Incoming power check	Perform in accordance with the graphs found in the engine maintenance manual (EMM).
Inertial separator	Functional check
Engine cowling	Remove, inspect for damage.
General condition	Inspect for oil, fuel, bleed-air or other leaks.
1st stage compressor blades	Remove screen, check for foreign object debris (FOD) or other damage.
P3 filter	Replace
Oil filter	Inspection and cleaning
Fuel low pressure filter	Replace
Fuel high pressure filter	Inspection and cleaning

	Aeroplanes of 2 730 kg MTOM and below			
System/component/area	Task and inspection detail			
Oil scavenge filter	Inspection and cleaning			
Chip detector	Inspection and cleaning			
Exhaust duct	Inspection			
Starter/generator brushes	Inspection Inspection for proper length			
Ignitor/glow plugs	Functional check			
Overspeed governor	Inspect for oil leaks.			
Governor and beta-valve	Inspect for oil leaks or binding of controls.			
Propeller	Inspect blades for damage and hub leaks.			
(if installed) fire detector loop or sense module	Functional check			
Engine cowling	Install			
Power check	Perform in accordance with the graphs found in the EMM, record values.			
Oil level	Check within 10 minutes after shutdown.			
FUEL				
Fuel tanks	Inspect for leaks and improper installation and connection.  Verify proper sealing and function of tank drains.			
CLUTCHES AND GEARBOXES				
Filters, screens, and chip detectors	Inspect for metal particles and foreign matter.			
Exterior	Inspect for oil leaks.			
Output shaft	Inspect for excessive bearings' play and condition.			
PROPELLER				
Propeller assembly	Inspect for cracks, nicks, binds, and oil leakage.			
Propeller bolts	Inspect for proper installation, looseness, signs of rotation, and lack of safe tying.			
Propeller control mechanism	Inspect for improper operation, insecure mounting, and restricted travel.			
Anti-icing devices	Inspect for improper operation and obvious defects.			
MISCELLANEOUS				
Ballistic rescue system	Inspect for proper installation, unbroken activation mechanism, proper securing while on ground, validity of inspection periods of pyrotechnic devices, and parachute-packing intervals.			
Other miscellaneous items	Inspect installed miscellaneous items that are not otherwise covered by this listing for improper installation and improper operation.			
OPERATIONAL AND FUNCTI	OPERATIONAL AND FUNCTIONAL CHECKS			
Power and revolutions per minute (rpm)	Check that power output, static and idle rpm are within published limits.			
Magnetos	Check for normal function.			
Fuel and oil pressure	Check that they are within normal values. Check fuel pumps for proper operation.			
Engine temperatures	Check that they are within normal values.			
Engine	For engines equipped with automated engine control (e.g. FADEC), perform the published run-up procedure and check for discrepancies.			
Engine	For dry-sump engines, engines with turbochargers and liquid-cooled engines, check for signs of disturbed fluid circulation.			
Pitot-static system	Perform functional check.			

Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

Aeroplanes of 2 730 kg MTOM and below		
System/component/area	Task and inspection detail	
Transponder	Perform operational check.	
Ice protection	Perform operational check of ice protection system.	
Fuel quantity indication	Check the fuel quantity indication for proper indication.	
Caution and warning	Operational check of cautions and warnings lights.	

MIP for ELA2 sailplanes and ELA2 powered sailplanes

### To be performed:

- every 100-h/annual interval (for TMGs), whichever comes first; or
- every annual interval (for the rest).

A tolerance of 1 month or 10 h, as applicable, may be applied. The next interval shall be calculated from the time the inspection takes place.

Note 1: Use the manufacturer's maintenance manual to accomplish each task/inspection.

Note 2: In the case of TMGs, it is acceptable to control the hours of use of the aircraft, engine and propeller as separate entities. Any maintenance check to be carried out between two consecutive 100-h/annual inspections may be performed separately on the aircraft, engine and propeller, depending on when each element reaches the corresponding hours. However, at the time of the 100-h/annual, all the elements must be covered.

Note 3: Proper operation of backup or secondary systems and components should be carried out wherever a check for improper installation/operation is performed.

ELA2 sailplanes and ELA2 powered sailplanes	
System/component/area	Task and inspection detail
GENERAL	
General — all tasks	The aircraft must be clean prior to inspection. Inspect for security, damage, wear, integrity, whether drain/vent holes are clear, for signs of overheating, leaks, chafing, cleanliness and condition, as appropriate to the particular task. Whilst checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage.
Lubrication/servicing	Lubricate and replenish fluids in accordance with the manufacturer's requirements.
Markings	Check that side and underwing registration markings are correct. If applicable, check that an exemption for alternate display is approved, if identification plate for NAA-registered aircraft is present, and if other identification markings on fuselage are in accordance with local (national) rules.
Weighing	Review weighing record to establish accuracy against installed equipment. Weigh the aircraft as required by the relevant Regulation for air operations.
AIRFRAME	
Fuselage paint/gel coat	Inspect external surface and fairings, gel coat, fabric covering or metal skin, and paintwork.
Fuselage structure	Check frames, formers, tubular structure, skin, and attachments. Inspect for signs of corrosion on tubular framework.
Nose fairing	Inspect for evidence of impact with ground or objects.
Release hook(s)	Inspect nose and centre of gravity, release hooks and controls. Check operational life. Carry out operational test. If more than one release hook or control is fitted, check operation of all release hooks from all positions.
Pitot/ventilator	Check alignment of probe, check operation of ventilator.
Pitot-static system	Inspect pitot probes, static ports, and all tubing (as accessible) for security, damage, cleanliness, and condition. Drain any water from condensate drains.
Bonding/vents drains	Check all bonding leads and straps. Check that all vents and drains are clear from debris.
CABIN AND COCKPIT	

ELA2 sailplanes and ELA2 powered sailplanes		
System/component/area	Task and inspection detail	
Cleanliness/loose articles	Check under cockpit floor/seat pan and in rear fuselage for debris and foreign items.	
Canopy, locks and jettison	Inspect canopy, canopy frame and transparencies for cracks, unacceptable distortion, and discolouration. Check operation of all locks and catches. Carry out an operational test of the canopy jettison system from all positions.	
Seat/cockpit floor	Inspect seat(s). Check that all loose cushions are correctly installed and, as appropriate, that energy-absorbing foam cushions are fitted correctly. Ensure that all seat adjusters fit and lock correctly.	
Harness(es)	Inspect all harnesses for condition, and wear of all fastenings, webbing, and fittings. Check operation of release and adjustments.	
Rudder pedal assemblies	Inspect rudder pedal assemblies and adjusters. Inspect cables for wear and damage.	
Instrument panel assemblies	Inspect instrument panel and all instruments/equipment. Check if instrument readings are consistent with ambient conditions. Check marking of all switches, circuit breakers, and fuses. Check operation of all installed equipment, as possible in accordance with the manufacturer's instructions. Check markings of instruments in accordance with the aircraft flight manual (AFM).	
Oxygen system	Inspect oxygen system. Check bottle hydrostatic-test date expiry in accordance with the manufacturer's recommendations.  Ensure that oxygen installation is recorded on weight and centre-of-gravity schedule.  CAUTION: OBSERVE ALL SAFETY PRECAUTIONS.	
Colour-coding of controls	Ensure that controls are colour-coded in accordance with the AFM and in good condition.	
Placards	Check that the placards are correct and legible, and accurately reflect the status of the aircraft in accordance with the AFM.	
LANDING GEAR		
Front skid/nose wheel and mounts	Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check tyre pressure.	
Main wheel and brake assembly	Check for integrity of hydraulic seals and leaks in pipework. Check life of hydraulic hoses and components, if specified by the manufacturer. Remove brake drums, check brake lining wear. Check disk/drum wear. Refit drum. Check brake adjustment.  CAUTION: BRAKE DUST MAY CONTAIN ASBESTOS.  Check operation of brake. Check level of brake fluid and replenish, if necessary. Check tyre pressure.  CAUTION: CHECK TYPE OF BRAKE FLUID USED AND OBSERVE SAFETY PRECAUTIONS.	
Undercarriage suspension	Check springs, bungees, shock absorbers, and attachments. Check for signs of damage. Service strut, if applicable.	
Undercarriage retract system and doors	Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over-centre/locking device. Perform retraction test.	
Tail skid/wheel	Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check bond of bonded skids. Check tyre pressure.	
Wheel brake control circuit	Inspect wheel brake control rods/cables. If combined with air brake, ensure correct rigging relationship. Check parking-brake operation, if fitted.	
WING AND CENTRE SECTIO	DN .	

	ELA2 sailplanes and ELA2 powered sailplanes
System/component/area	Task and inspection detail
Centre section	Inspect wing centre section including fairings for security, damage, and condition.
Wing attachments	Inspect the structural attachments of the wing. Check for damage, wear, and security. Check for rigging damage. Check condition of wing attachment pins and wing main bolts.
Winglet/wing extensions	Inspect the structural attachments of winglet and wing attachments. Check for damage, wear, and security.
Aileron control circuit/stops	Inspect aileron control rods/cables. Check that control stops are secure and make contact. Inspect connecting control devices for security, damage, free play and secure mounting.
Air brake control circuit	Inspect air brake control rods/cables. Check friction/locking device (if fitted). Inspect connecting control devices for security, damage, free play and secure mounting. Inspect air brake locking for proper adjustment and positive locking.
Wing struts/wires	Inspect struts for damage and internal corrosion. Re-inhibit struts internally every 3 years or in accordance with the manufacturer's instructions.
Wings including underside registration markings	Check mainplane structure externally and internally, as far as possible. Check gel coat, fabric covering, or metal skin.
Ailerons and controls	Inspect aileron and flaperon assemblies, hinges, control connections, springs/bungees, tapes, and seals. Ensure that seals do not impair the full range of movement.
Air brakes/spoilers	Inspect air brake/spoiler panel(s) operating rods, closure springs, and friction devices, as fitted.
Flaps	Check flap system and control. Inspect connecting control devices.
Control deflections and free play, and record them on worksheets	Check and record range of movements and cable tensions, if specified, and check free play.
EMPENNAGE	
Tailplane and elevator	With tailplane de-rigged, check tailplane and attachments, self-connecting and manual control connections. Check gel coat, fabric covering, or metal skin.
Rudder	Check rudder assembly, hinges, attachments, balance weights.
Rudder control circuit/stops	Inspect rudder control rods/cables. Check that control stops are secure and make contact. Pay particular attention to wear and security of liners and cables in 'S' tubes.
Elevator control circuit/stops	Inspect elevator control rods/cables. Check that control stops are secure and make contact. Inspect self-connecting control devices.
Trimmer control circuit	Inspect trimmer control rods/cables. Check friction/locking device. Inspect trim indication for proper adjustment and function.
Control deflections and free play, and record them on worksheets	Check and record range of movements and cable tensions, if specified, and check free play.
AVIONICS AND ELECTRICS	
Electrical installation/fuses	Check all electrical wiring for condition. Check for signs of overheating and poor connections. Check fuses/trips for condition and correct rating.
Battery security and corrosion	Check battery mounting for security and operation of clamp. Check for evidence of electrolyte spillage and corrosion. Check that battery has correct main fuse fitted.

	ELA2 sailplanes and ELA2 powered sailplanes
System/component/area	Task and inspection detail
	It is recommended to carry out battery capacity test on gliders equipped with
	radio, used for cross-country, controlled airspace, or competition flying.
Radio installations and	Check radio installation, microphones, speakers and intercom, if fitted. Check
placards	that a call sign placard is installed. Carry out ground function test. Record radio
	type fitted.
Air speed indicator	Carry out a pitot static leak check and functional check of the airspeed indicator.
	In case of indications of malfunctions, carry out an airspeed indicator calibration
	check.
Altimeter datum	Check barometric subscale by altimeter QNH reading.
Pitot-static system	Perform pitot static leak check, inspect hoses for condition, operational check.
Transponder	Perform operational check.
MISCELLANEOUS	
Removable ballast	Check removable ballast mountings and securing devices (including fin ballast, if
	applicable) for condition. Check that ballast weights are painted with
	conspicuous colour. Check that provision for the ballast is made on the loading placard.
Drag chute and controls	
•	Inspect chute, packing and release mechanism. Check packing intervals.  Check water ballast system, wing and tail tanks, as fitted. Check filling points,
Water ballast system	level indicators, vents, dump and frost drains for operation and leakage. If loose
	bladders are used, check for leakage and expiry date, as applicable.
POWER PLANT (when appli	
	nes with electrical or jet engines, follow the maintenance instructions and
recommendations of the D	
Engine pylons and	Inspect engine and pylon installation. Check engine compartment and fire
mountings	sealing.
Gas strut	Check gas strut.
Pylon/engine stops	Check limit stops on retractable pylons. Check restraint cables.
Electric actuator	Inspect electric actuator, motor, spindle drive, and mountings.
Electrical wiring	Inspect all electrical wiring. Pay special attention to wiring that is subject to
	bending during extension and retraction of engine/pylon.
Limit switches	Check operation of all limit switches and strike plates. Make sure that they are
	not damaged by impact.
Fuel tank(s)	Check fuel tank mountings and tank integrity. Check fuel quantity indication
	system, if fitted.
Fuel pipes and vents	Check all fuel pipes, especially those subject to bending during extension and
	retraction of engine/pylon. Check that vents are clear. Make sure that overboard drains do not drain into engine compartment. Check self-sealing.
Fuel cock or shut-off	Check operation of fuel cock or shut-off valve and indications.
valve	check operation of fuel cock of Shut-off valve and Mulcations.
Fuel pumps and filters	Clean or replace filters, as recommended by manufacturer. Check operation of
r dei pumps and inters	fuel pumps for engine supply or tank replenishment. Check fuel pump controls
	and indications.
Decompression valve	Inspect decompression valve and operating control.
Ignition	Inspect ignition system including spark plugs, distributor and cables for condition
	and damage. Inspect low-tension and high-tension wiring, connectors, spark
	plug caps. Check magneto-to-engine timing.
Propeller	Inspect propeller, hub, folding mechanism, brake, pitch change mechanism, stow sensors. Inspect propeller control for function and condition.

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ELA2 sailplanes and ELA2 powered sailplanes		
System/component/area	Task and inspection detail	
Doors	Check engine compartment doors, operating cables, rods, and cams.	
Safety springs	Check all safety and counterbalance springs.	
Extension and retraction	Check that extension and retraction operation times are within the limits specified by the manufacturer. Check light indications and interlocks for correct operation.	
Exhaust	Inspect exhaust system, silencer, shock mounts, and links.	
Engine installation	Inspect engine and all accessories.  Carry out compression test and record results (for piston engines).  Compression test results:  No 1 (left/front); and  No 2 (right/rear).	
Lubrication	Change engine oil and filter. Replenish oil and additive tanks.	
Engine instruments	Inspect all engine instruments and controls. Check control unit, mounts, bonding and connections. Carry out internal self-test, if fitted.	
Engine battery	If separate from airframe battery, inspect battery and mountings. If main fuse is fitted, check rating and condition.	
Engine battery capacity test	Carry out capacity test. Refer to appropriate manual or guidance.	
Placards	Check that all placards are in accordance with the AFM and legible.	
Oil and fuel leaks	With the engine fully serviced, check the fuel and oil system for leaks.	

#### MIP for ELA2 hot-air balloons

To be performed at every 100-h/annual interval, whichever comes first.

A tolerance of 1 month or 10 h may be applied. The next interval shall be calculated from the time the inspection takes place.

Note 1: Use the manufacturer's maintenance manual to accomplish each task/inspection.

Note 2: Proper operation of backup or secondary systems and components should be carried out wherever a check for improper installation/operation is performed.

### (a) Envelope

System/component/area	Task and inspection detail
Identification (type/serial number/registration plate)	Check for presence.
Crown ring	Inspect for damage/corrosion.
Crown line	Inspect for damage, wear, security of attachment. Check correct length.
Vertical-/horizontal-load tapes	Inspect joints with the crown ring, top of the envelope and wires. Inspect that all load tapes are undamaged along their entire length. Inspect base horizontal tape and edge of the envelope top. Inspect joint between base horizontal-load tape and vertical-load tapes.
Envelope fabric	Inspect the envelope fabric panels (including parachute and rotation vents, if fitted) for damage, porosity overheating or weakness.  Unrepaired damage is within tolerance provided for by the manufacturer.  If substantial fabric porosity is suspected, a flight test should be performed, but only after a grab test has demonstrated that the balloon is safe to fly.  Perform grab test in accordance with the manufacturer's instructions.
Flying cables	Inspect for damage (particularly heat damage).
Karabiners	Inspect for damage/corrosion. Operational check of karabiner lock.
Melting link and 'tempilabel'	Check and record maximum temperature indication (flag/tempilabel).
Control lines and attachments	Inspect for damage wear, security of knots. Check proper length. Check lines attachments for damage, wear, security.
Envelope pulleys/guide rings	Inspect for damage, wear, free running, contamination, security of attachment.

### (b) Burner

System/component/area	Task and inspection detail
Identification (type/serial number)	Check for presence and verify type/serial number installed.
Burner frame	Inspect welds for cracking.
	Inspect tubes for distortion/deformation/cuts/gouges.
	Inspect frame for security of fasteners (heat shields, flexi-corners).
	Inspect frame lugs for wear and cracking.
	Inspect general condition (corrosion, heat shields).
Gimballing	Operational check of stiffness and security of fasteners.

System/component/area	Task and inspection detail
Leak check	Perform leak check of the burner.
Fuel hoses including manifolds	Inspect all hoses for wear, damage, leakage and service life limitations. Inspect O-ring seals, lubricate/replace as required.
Pressure gauges	Check that the pressure gauge reads correctly, and that lens is present.
Pilot valves/flame	Check shut-off, free movement, correct function, and lubricate if necessary.
Whisper valves/flame	Check shut-off, free movement, correct function, and lubricate if necessary.
Main valves/flame	Check shut-off, free movement, correct function, and lubricate if necessary.
Coils	Check for damage, distortion, security of fasteners. Inspect welds for cracking. Check security of jets. Tighten or replace, as necessary.

## (c) Basket

System/component/area	Task and inspection detail
Identification (type/serial number)	Check for presence.
Basket walls	Check the general condition of the basket walls. Inspect weave for damage, cracks/holes. Check for no sharp objects inside the basket.
Basket wires	Inspect for damage, check swaging and eye rings (thimbles).
Karabiners	Inspect for damage/corrosion. Operational check of karabiner lock.
Basket floor	Inspect for damage and cracks.
Runners	Inspect for damage, security of attachment.
Rawhide	Inspect for damage, wear and attachments to the floor.
Rope handles	Inspect for damage, security of attachment.
Cylinder straps	Inspect for damage, deterioration, approved type fitted.
Padded basket edge trim	Inspect for damage and wear.
Burner support rods	Inspect for damage, wear and cracking.
Padded burner support rod covers	Inspect for damage and wear.
Basket equipment	Check presence and functionality.
Pilot restraint and anchor	Inspect for security and condition.
Fire extinguisher	Check expiration date and protection cover.
First aid kit	Check for completeness and expiration date.

## (d) Fuel cylinders

System/component/area	Task and inspection detail
Identification (type/serial number)	Check for presence.
Cylinder	Check if periodic inspections for each cylinder are valid (date) (e.g. 10 years' inspection).
Cylinder body	Inspect for damage, corrosion.
Liquid valve	Inspect for damage, corrosion, correct operation.
	Inspect O-ring seals, lubricate/replace as required.

System/component/area	Task and inspection detail
Fixed liquid Level gauge	Inspect for damage, corrosion, correct operation.
Contents Gauge	Inspect for damage, corrosion, freedom of movement.
Vapour valve	Inspect for damage, corrosion, correct operation (including regulator).
	Check quick-release coupling for correct operation, sealing.
Padded cover	Inspect for damage. Check for correct thickness.
Pressure relief valve	Inspect for contamination, corrosion. Check service life limit.
Assembly	Inspect, and test for leaks all pressure-holding joints using leak detector.
	Perform functional test

### (e) Additional equipment

System/component/area	Task and inspection detail
Instruments	Perform functional check.
Quick release	Perform functional check and inspect the condition of the latch, bridle and ropes for wear and deterioration. Check that the karabiners are undamaged and operate correctly.
Communication/navigati on equipment (radio)	Perform operational check.
Transponder	Perform operational check.

# GM1 ML.A.302(d)(2) Aircraft maintenance programme

ED Decision 2020/002/R

#### **OPERATIONAL TEST AND FUNCTIONAL TEST**

An operational test (or operational check) is a task used to determine that an item is operating normally. It does not require quantitative tolerances.

A functional test (or functional check) is a quantitative check to determine if one or more functions of an item performs within the limits specified in the appropriate maintenance data. The measured parameter should be recorded.

# GM1 ML.A.302(d)(2)(d) Aircraft maintenance programme

ED Decision 2020/002/R

#### **OPERATIONAL TEST OF TRANSPONDER**

A transponder test that is carried out in accordance with EASA SIB 2011-15 or US Title 14 CFR Part 43 Appendix F is considered to include the MIP task described in ML.A.302(d)(2)(d).

## ML.A.303 Airworthiness directives

Regulation (EU) 2019/1383

Any applicable AD must be carried out within the requirements of that AD unless otherwise specified by the Agency.

# ML.A.304 Data for modifications and repairs

Regulation (EU) 2019/1383

A person or organisation repairing an aircraft or a component shall assess any damage. Modifications and repairs shall be carried out using, as appropriate, the following data:

- (a) approved by the Agency;
- (b) approved by a design organisation complying with Annex I (Part-21) to Regulation (EU) No 748/2012;
- (c) contained in the requirements referred to in point 21.A.90B or point 21.A.431B of Annex I (Part-21) to Regulation (EU) No 748/2012.

# ML.A.305 Aircraft continuing-airworthiness record system

Regulation (EU) 2019/1383

- (a) At the completion of any maintenance, the certificate of release to service (CRS) required by point ML.A.801 shall be entered in the aircraft continuing airworthiness record system. Each entry shall be made as soon as possible but not later than 30 days after the day of the completion of the maintenance task.
- (b) The aircraft continuing airworthiness records shall consist of an aircraft logbook, engine logbook(s) or engine module log cards, propeller logbook(s) and log cards, for any service-life-limited component, as appropriate.
- (c) The aircraft type and registration mark, the date together with the total flight time and flight cycles and landings, shall be entered in the aircraft logbooks.
- (d) The aircraft continuing airworthiness records shall contain:
  - (1) the current status of ADs and measures mandated by the competent authority in immediate reaction to a safety problem;
  - (2) the current status of modifications, repairs and other DAH maintenance recommendations;
  - (3) the current status of compliance with the AMP;
  - (4) the current status of service-life-limited components;
  - (5) the current mass and balance report;
  - (6) the current list of deferred maintenance.
- (e) In addition to the authorised release document, EASA Form 1, as set out in Appendix II of Annex I (Part-M), or equivalent, the following information relevant to any component installed, such as engine, propeller, engine module or service-life-limited component, shall be entered in the appropriate engine or propeller logbook, engine module or service-life-limited component log card:
  - (1) the identification of the component;

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- (2) the type, serial number and registration, as appropriate, of the aircraft, engine, propeller, engine module or service-life-limited component to which the particular component has been fitted, along with the reference to the installation and removal of the component;
- (3) the date together with the component's accumulated total flight time, flight cycles, landings and calendar time, as relevant to the particular component;
- (4) the current information referred to in point (d), applicable to the component.
- (f) The person or organisation responsible for the management of continuing airworthiness and tasks pursuant to point ML.A.201, shall control the records as detailed in point ML.A.305 and present the records to the competent authority upon request.
- (g) All entries made in the aircraft continuing airworthiness records shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.
- (h) An owner shall ensure that a system has been established to keep the following records for the periods specified:
  - (1) all detailed maintenance records in respect of the aircraft and any service-life-limited component fitted thereto, until such time as the information contained therein is superseded by new information equivalent in scope and detail but no less than 36 months after the aircraft or component has been released to service;
  - (2) the total time in service, this is to say hours, calendar time, cycles and landings, of the aircraft and all service-life-limited components, for at least 12 months after the aircraft or component has been permanently withdrawn from service;
  - (3) the time in service, this is to say hours, calendar time, cycles and landings, as appropriate, since the last scheduled maintenance of the component subjected to a service life limit, at least until the component scheduled maintenance has been superseded by another scheduled maintenance of equivalent work scope and detail;
  - (4) the current status of compliance with the AMP at least until the scheduled maintenance of the aircraft or component has been superseded by another scheduled maintenance of equivalent work scope and detail;
  - (5) the current status of ADs applicable to the aircraft and components, at least 12 months after the aircraft or component has been permanently withdrawn from service;
  - (6) details of current modifications and repairs to the aircraft, engine(s), propeller(s) and any other component vital to flight safety, at least 12 months after they have been permanently withdrawn from service.

# AMC1 ML.A.305 Aircraft continuing-airworthiness record system

FD Decision 2020/002/R

- (a) Any other forms different from a logbook/log card of keeping the below information could be acceptable. For example, that could be in paper form, a spreadsheet or an IT system.
- (b) A log card and status for components other than propeller and engines could be combined in a single document.
- (c) If the AD is generally applicable to the aircraft or component type but is not applicable to the particular aircraft, engine, propeller or component, then this should be identified as well as the



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- reason why it is not applicable. There is no need to list those ADs that are superseded or cancelled.
- (d) The current status of ADs should be sufficiently detailed to identify the complied AD and/or the
- (e) If the IT system is the only record-keeping system, it should have at least one backup system, which should be regularly updated. Each terminal should contain programme safeguards against the probability of unauthorised personnel altering the database.

# ML.A.307 Transfer of aircraft continuing-airworthiness records

Regulation (EU) 2019/1383

- (a) When an aircraft is permanently transferred from one owner to another, the transferring owner shall ensure that the continuing airworthiness records referred to in point <u>ML.A.305</u> are also transferred.
- (b) When the owner contracts the continuing airworthiness management tasks to a CAMO or CAO the owner shall ensure that the continuing airworthiness records referred to in point ML.A.305 are transferred to the contracted organisation.
- (c) The time periods for the retention of records set out in point (h) of point ML.A.305 shall continue to apply to the new owner, CAMO or CAO.



## **SUBPART D — MAINTENANCE STANDARDS**

# ML.A.401 Maintenance data

Regulation (EU) 2020/270; Regulation (EU) 2021/700

- (a) The person or organisation maintaining an aircraft shall only use applicable maintenance data during the performance of maintenance.
- (b) For the purposes of this Annex, 'applicable maintenance' data means:
  - (1) any applicable requirement, procedure, standard or information issued by the competent authority or the Agency;
  - (2) any applicable AD;
  - (3) applicable ICA issued by type certificate holders, supplementary type certificate holders and any other organisation that publishes such data in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012;
  - (4) any applicable data issued in accordance with point (d) of point 145.A.45.
- (b) For the purposes of this Annex, "applicable maintenance data" means any of the following:
  - 1. any applicable requirement, procedure, standard or information issued by the competent authority or the Agency;
  - 2. any applicable AD;
  - 3. the applicable ICA and other maintenance instructions, issued by the type-certificate holder, supplementary type-certificate holder and any other organisation that publishes such data in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012;
  - 4. for components approved for installation by the design approval holder, the applicable maintenance instructions published by the component manufacturers and acceptable to the design approval holder;
  - 5. any applicable data issued in accordance with point 145.A.45(d).

[applicable from 18 May 2022]

# GM1 ML.A.401(b) Maintenance data

ED Decision 2021/009/R

Similar provisions to those in GM1 M.A.401(b)(3) and (b)(4) and GM1 M.A.401(b)(4) apply. [applicable from 18 May 2022]

## ML.A.402 Performance of maintenance

Regulation (EU) 2019/1383

- (a) Maintenance performed by approved maintenance organisations shall be in accordance with Subpart F of Annex I (Part-M), Annex II (Part-145) or Annex Vd (Part-CAO), as applicable.
- (b) For maintenance not performed in accordance with point (a), the person performing maintenance shall:
  - (1) be qualified for the tasks performed, as required by this Annex;
  - (2) ensure that the area in which maintenance is carried out is well organised and clean with no dirt or contamination;
  - (3) use the methods, techniques, standards and instructions specified in the maintenance data referred to in point ML.A.401;
  - (4) use the tools, equipment and material specified in the maintenance data referred to in point <u>ML.A.401</u>. If necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard;
  - (5) ensure that maintenance is performed within any environmental limitations specified in the maintenance data referred to in point ML.A.401;
  - (6) ensure that proper facilities are used in case of inclement weather or lengthy maintenance;
  - (7) ensure that the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised;
  - (8) ensure that an error-capturing method is implemented after the performance of any critical maintenance task;
  - (9) perform a general verification after completion of maintenance to ensure that the aircraft or component is clear of all tools, equipment and any extraneous parts and material, and that all access panels removed have been refitted;
  - (10) ensure that all maintenance performed is properly recorded and documented.

## AMC1 ML.A.402 Performance of maintenance

ED Decision 2020/002/R

- (a) Examples of acceptable methods to record and document the maintenance performed are the following:
  - a copy of the 100-h/annual inspection checklist with ticks and signature; and
  - a copy of the release to service indicating the tasks performed.
- (b) Airborne contamination (e.g. dust, precipitation, paint particles, filings) should be kept to a minimum to ensure aircraft/components surfaces are not contaminated. If this is not possible, all susceptible systems should be sealed until acceptable conditions are re-established.

# AMC1 ML.A.402(b)(7) Performance of maintenance

ED Decision 2020/002/R

To minimise the risk of errors and to prevent omissions, the person performing maintenance should ensure that:

- (a) every maintenance task is signed off only after completion;
- (b) the grouping of tasks for the purpose of sign-off allows critical steps to be clearly identified; and
- (c) any work performed by personnel under supervision (i.e. temporary staff, trainees) is checked and signed off by an authorised person.

# AMC1 ML.A.402(b)(8) Performance of maintenance

ED Decision 2020/002/R

#### **CRITICAL MAINTENANCE TASKS**

The following maintenance tasks should primarily be reviewed to assess their impact on safety:

- (a) tasks that may affect the control of the aircraft's flight path and attitude, such as the installation, rigging and adjustments of flight controls;
- (b) tasks that may affect aircraft stability control systems (autopilots, fuel transfer);
- (c) tasks that may affect the propulsive force of the aircraft, including the installation of aircraft engines, propellers and rotors; and
- (d) the overhaul, calibration or rigging of engines, propellers, transmissions and gearboxes.

# AMC2 ML.A.402(b)(8) Performance of maintenance

ED Decision 2020/002/R

### **ERROR-CAPTURING METHODS**

Re-inspection, when only one person is available to carry out the task, or independent inspection, are possible error-capturing methods.

## **ML.A.403 Aircraft defects**

Regulation (EU) 2019/1383

- (a) Any aircraft defect that seriously endangers the flight safety shall be rectified before further flight.
- (b) The following persons may decide that a defect does not seriously endanger flight safety, and may defer it accordingly:
  - (1) the pilot in respect of defects affecting non-required aircraft equipment;
  - (2) the pilot, when using the minimum equipment list, in respect of defects affecting required aircraft equipment otherwise, these defects may only be deferred by authorised certifying staff;
  - (3) the pilot in respect of defects other than those referred to in points (b)(1) and (b)(2) if all the following conditions are met:
    - (i) the aircraft is operated under Annex VII to Regulation(EU) No 965/2012 (Part-NCO) or, in the case of balloons or sailplanes, not operated under Subpart-ADD of



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Annex II (Part-BOP) to Regulation (EU) 2018/395 or not following Subpart DEC of Annex II (Part-SAO) to Regulation (EU) 2018/1976;

- (ii) the pilot defers the defect with the agreement of the aircraft owner or, if applicable, of the contracted CAMO or CAO;
- (4) the appropriately qualified certifying staff in respect of other defects than those referred to in points (b)(1) and (b)(2), where the conditions referred to in point 3(i) and (ii) are not met.
- (c) Any aircraft defect that does not seriously hazard flight safety shall be rectified as soon as practicable from the date on which the defect was first identified and within the limits specified in the maintenance data.
- (d) Any defect not rectified before flight shall be recorded in the aircraft continuing airworthiness record system referred to in point ML.A.305 and a record shall be available to the pilot.

## AMC1 ML.A.403 Aircraft defects

ED Decision 2020/002/R

Aircraft equipment should be declared to be defective if the pilot observed a malfunction during the flight, or if considered as faulty after inspection/test referred to in the maintenance data. This does not prevent the pilot from recording observations and comments on the performance of the aircraft equipment where this is not considered to constitute a defect.

# **GM1 ML.A.403 Aircraft defects**

ED Decision 2020/002/R

If appropriate certifying staff is readily available for consultation, the pilot should consider consultation with them before deferring any defect.

For balloons not operated under Subpart-ADD, sailplanes not operated under Subpart-DEC, or other aircraft operated under Part-NCO, the pilot may defer required equipment, regardless of whether or not a CAMO or CAO is contracted. However, if doing so, he or she has the obligation to receive the agreement of the owner, or the contracted CAMO or CAO.

The term 'required' refers to equipment that is required by the applicable airworthiness code (certification specification) or required by the relevant regulations for air operations or the applicable rules of the air or as required by air traffic management (e.g. a transponder in certain controlled airspace).

# AMC1 ML.A.403(d) Aircraft defects

ED Decision 2020/002/R

All deferred defects should be made known to the pilot/flight crew, whenever possible, prior to their arrival at the aircraft.

Deferred defects should be listed on the current list of deferred maintenance (ML.A.305(d)(6)) and rectified at the next appropriate maintenance event and within the limit specified in the maintenance data. Any deferred defect that is not rectified during the next maintenance event, should be reentered on the list of deferred maintenance and the original date of the defect should be retained.

### **SUBPART E — COMPONENTS**

### ML.A.501 Classification and installation

Regulation (EU) 2019/1383, Regulation (EU) 2021/700

- (a) Unless otherwise specified in Subpart F of Annex I (Part-M), Annex II (Part-145), Annex Vd (Part-CAO) to this Regulation and Annex I (Part-21) to Regulation (EU) No 748/2012, component may be fitted only if all of the following conditions are met:
  - (i) it is in a satisfactory condition;
  - (ii) has been appropriately released to service using an EASA Form 1 as set out in Appendix II of Annex I (Part-M), or equivalent;
  - (iii) has been marked in accordance with Subpart Q of Annex I (Part-21) to Regulation (EU) No 748/2012.
- (a) Unless otherwise specified in Subpart F of Annex I (Part-M), in Annex II (Part-145), in Annex Vd (Part-CAO) to this Regulation or in point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012, a component may be fitted only if all of the following conditions are met:
  - (i) it is in a satisfactory condition;
  - (ii) it has been appropriately released to service using an EASA Form 1 as set out in Appendix II to Annex I (Part-M), or equivalent;
  - (iii) it has been marked in accordance with Subpart Q of Annex I (Part 21) to Regulation (EU) No 748/2012.

[applicable from 18 May 2022]

- (b) Prior to the installation of a component on an aircraft, the person or approved maintenance organisation shall ensure that the particular component is eligible to be fitted if different modifications or AD configurations are applicable.
- (c) Standard parts shall only be fitted to an aircraft or component when the maintenance data specifies those particular standard parts. Standard parts shall only be fitted when accompanied by evidence of conformity to the applicable standard and has appropriate traceability.
- (d) Raw or consumable material shall only be used on an aircraft or component provided that:
  - (i) the aircraft or component manufacturer allows for the use of raw or consumable material in relevant maintenance data or as specified in Subpart F of Annex I (Part-M), Annex II (Part-145) or Annex Vd (Part-CAO).
  - (ii) such material meets the required material specification and has appropriate traceability.
  - (iii) such material is accompanied by documentation clearly relating to the particular material and containing a conformity-to-specification statement as well as the manufacturing and supplier source.
- (e) In case of balloons, where different combinations of baskets, burners and fuel cylinders are possible for a particular envelope, the person installing them shall ensure that:
  - (1) the basket, burner and/or fuel cylinders are eligible for installation according to the TCDS or other documents referred to in the TCDS;
  - (2) the basket, burner and/or fuel cylinders are in serviceable condition and have the appropriate maintenance records.

### GM1 ML.A.501 Classification and installation

ED Decision 2021/009/R

Components accepted by the owner in accordance with 21.A.307(c) of Part 21, or standard parts are eligible for installation without an EASA Form 1.

[deleted from 18 May 2022]

# GM1 ML.A.501(a) Classification and installation

ED Decision 2021/009/R

Point (b) of 21.A.307 specifies new components that do not need an EASA Form 1 or equivalent to be eligible for installation. Point (c) of 21.A.307 specifies the conditions for the document accompanying the component.

[applicable from 18 May 2022]

# AMC1 ML.A.501(a)(ii) Classification and installation

ED Decision 2021/009/R

#### **EASA FORM 1 OR EQUIVALENT**

A document equivalent to an EASA Form 1 may be:

- (a) a release document issued by an organisation under the terms of a bilateral agreement signed by the European Union;
- (b) a release document issued by an organisation approved under the terms of a JAA bilateral agreement until superseded by the corresponding agreement signed by the European Union;
- (c) a JAA Form One issued prior to 28 November 2004 by a JAR 145 organisation approved by a JAA Full Member State;
- (d) in the case of new aircraft components that were released from manufacturing prior to the Part 21 compliance date, a JAA Form One issued by a JAR 21 organisation approved by a JAA Full Member State within the JAA mutual recognition system;
- (e) a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations;
- (f) a JAA Form One issued prior to 28 September 2008 by a maintenance organisation approved by a competent authority in accordance with its national regulations;
- (g) a release document acceptable to a competent authority according to the provisions of a bilateral agreement between the competent authority and a third country until superseded by the corresponding agreement signed by the European Union. This provision is valid provided the above agreements between the competent authority and a third country are notified to the European Commission and to the other competent authorities in accordance with Article 68 of Regulation (EU) 2018/1139; and
- (h) a release document issued under the conditions described in Article 4(4) of Regulation (EU) No 1321/2014.
- (i) a 'declaration of maintenance accomplished' issued by the person or organisation that performed the maintenance, as specified in point ML.A.502(c).
   [applicable from 18 May 2022]

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# AMC1 ML.A.501(e) Classification and installation

ED Decision 2020/002/R

#### **BALLOONS**

Baskets, burners and fuel cylinders are components which are often interchanged between different balloons. Furthermore, they are often removed/installed by the pilot-owner (or by other persons when such removal/installation is not considered maintenance because the task is described in the AFM).

As a consequence, an EASA Form 1 does not need to be issued when these components are removed in serviceable condition from a balloon, and can be installed on another balloon as long as the person performing the installation has access to the appropriate maintenance records necessary to establish their serviceable condition. In particular, due attention should be paid to the inspection dates of the various components.

This does not supersede the requirement to release any maintenance performed on such components either on an EASA Form 1 or equivalent or on the balloon maintenance log book, as applicable.



# **ML.A.502 Component maintenance**

Regulation (EU) 2019/1383, Regulation (EU) 2021/700

- (a) Components accepted by the owner in accordance with point (c) of point 21.A.307 of Annex I (Part-21) to Regulation (EU) No 748/2012 shall be maintained by any person or organisation, subject to reacceptance by the owner under the conditions of point 21.A.307(c) of that Annex. This maintenance is not eligible for the issuance of an EASA Form 1, as set out in Appendix II of Annex I (Part-M), and shall be subject to the aircraft release requirements.
- (a) Components which are accepted by the owner in accordance with point (b)(2) of point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012 shall be maintained by any person or organisation, subject to reacceptance by the owner under the conditions of point (b)(2) of point 21.A.307 of that Annex. This maintenance is not eligible for the issuance of an EASA Form 1, as set out in Appendix II to Annex I (Part-M), and shall be subject to the aircraft release requirements.

[applicable from 18 May 2022]

(b) Components shall be released in accordance with the following table:

	Released using an EASA Form 1 (as set out in Appendix II of Annex I (Part-M))	Released at aircraft level per point ML.A.801 (not possible to issue an EASA Form 1)		
	ntained in accordance with compor ta issued by the component manuf			
Maintenance other than overhaul	Engine-rated (for engine) or component-rated (for other components) maintenance organisations	<ul><li>(i) Aircraft-rated maintenance organisations; and/or</li><li>(ii) independent certifying staff</li></ul>		
Overhaul of components other than engines and propellers	Component-rated maintenance organisations	Not possible		
Overhaul of engines and propellers for CS-VLA, CS-22 and LSA aircraft	Engine-rated (for engine) or component-rated (for propeller) maintenance organisations	<ul><li>(iii) Aircraft-rated maintenance organisations; and/or</li><li>(iv) independent certifying staff</li></ul>		
Overhaul of engines and propellers for other than CS-VLA, CS-22 and LSA aircraft	Engine-rated (for engine) or component-rated (for propeller) maintenance organisations	Not possible		
Components maintained in accordance with aircraft maintenance data (data issued by the aircraft manufacturer)				
All components and all types of maintenance	Engine-rated (for engine) or component-rated (for other components) maintenance organisations	<ul><li>Aircraft-rated maintenance organisations; and/or</li><li>independent certifying staff</li></ul>		

(c) Components which are referred to in points (b)(3) to (b)(6) of point 21.A.307 of Annex I (Part 21) to Regulation (EU) No 748/2012 may be maintained by any person or organisation. In such case, by way of derogation from point (b), the maintenance of those components shall be released with a "declaration of maintenance accomplished" issued by the person or organisation that performed the maintenance. The "declaration of maintenance accomplished" shall contain at least basic details of the maintenance carried out, the date on which the maintenance was completed, and the identification of the organisation or person that issues it.

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It shall be considered a maintenance record and equivalent to an EASA Form 1 in respect of the maintained component.

[applicable from 18 May 2022]

# **GM1 ML.A.502 Component maintenance**

ED Decision 2020/002/R

#### COMPONENT MAINTENANCE BY INDEPENDENT CERTIFYING STAFF

The cases where the independent certifying staff can release component maintenance are only valid when the independent certifying staff is allowed, according to ML.A.201, to carry out maintenance (refer to GM1 ML.A.201) and when he or she is competent for such component maintenance.

As an example, in accordance with ML.A.201(e), the independent certifying staff cannot carry out maintenance when the balloon is operated under Subpart-ADD.

# GM1 ML.A.502(c) Component maintenance

ED Decision 2021/009/R

A 'declaration of maintenance accomplished' is a certificate prepared in any shape/form by the person or organisation that performed any maintenance on the component covered by the certificate and subject to conditions in ML.A.502(c). This person or organisation does not need an approval to perform maintenance in accordance with Regulation (EU) No 1321/2014. In order for the component to be eligible for installation with a 'declaration of maintenance accomplished', this declaration, together with other records, should allow the determination that the component was first installed as 'new', as a component referred to in ML.A.502(c). Such a component should not be installed in an aircraft if there is information on the certificate which is not readable or not understandable or states that the component is not in a satisfactory condition for operation.

[applicable from 18 May 2022]

# ML.A.503 Service-life-limited components

- (a) The term 'service life-limited components' contains the following components:
  - (1) components subject to a certified life limit after which the components should be retired, and;
  - (2) components subject to a service life limit after which the components shall undergo maintenance to restore their serviceability.
- (b) Installed service-life-limited components shall not exceed the approved service life limit as specified in the AMP and ADs, except as provided for in point ML.A.504(c).
- (c) The approved service life is expressed in calendar time, flight hours, landings or cycles, as appropriate.
- (d) At the end of the approved service life limit, the component must be removed from the aircraft for maintenance, or for disposal in the case of components with a certified life limit.

# ML.A.504 Control of unserviceable components

- (a) A component shall be considered unserviceable in any of the following circumstances:
  - (1) expiry of the component's service life limit as defined in the AMP;
  - (2) non-compliance with the applicable ADs and other continued-airworthiness requirement mandated by the Agency;
  - (3) absence of the necessary information to determine the airworthiness status of the component or its eligibility for installation;
  - (4) evidence of component defects or malfunctions;
  - (5) component involvement in an incident or accident likely to affect its serviceability.
- (b) Unserviceable components shall be identified as one of the following:
  - unserviceable and stored in a secure location under the control of an approved maintenance organisation or independent certifying staff until a decision is made on the future status of such components;
  - (2) unserviceable by the person or organisation that declared the component unserviceable, and its custody shall be transferred to the aircraft owner after documenting such transfer in aircraft maintenance record system referred to in point ML.A.305.
- (c) Components which have reached their certified life limit or contain a non-repairable defect or malfunction shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved in accordance with point ML.A.304.
- (d) Any person or organisation responsible pursuant to point ML.A.201 shall in the case of an unsalvageable component, as provided for in point (c), take one of the following actions:
  - (1) retain such component in a location referred to in point (b)(1);
  - (2) arrange for the component to be mutilated in a manner that ensures that it is beyond economic salvage or repair before relinquishing responsibility for such a component.
- (e) Notwithstanding point (d), a person or organisation responsible pursuant to point <u>ML.A.201</u> may transfer responsibility of components classified as unsalvageable without mutilation to an organisation for training or research.

# **SUBPART H — CERTIFICATE OF RELEASE TO SERVICE (CRS)**

# ML.A.801 Aircraft certificate of release to service

- (a) A CRS shall be issued after the required maintenance has been carried out properly on an aircraft.
- (b) The CRS shall be issued, alternatively by:
  - (1) appropriate certifying staff on behalf of the approved maintenance organisation;
  - (2) independent certifying staff;
  - (3) the pilot- owner in compliance with point ML.A.803.
- (c) By derogation from point (b), in the case of unforeseen circumstances, when an aircraft is grounded at a location where no appropriately approved maintenance organisation and no appropriate certifying staff are available, the owner may authorise any person, with no less than 3 years of appropriate maintenance experience and holding the proper qualifications, to maintain the aircraft according to the standards set out in Subpart D of this Annex and release the aircraft. The owner shall in that case:
  - (1) obtain and keep in the aircraft records, details of all the work carried out and of the qualifications held by the person issuing the certification;
  - (2) ensure that any such maintenance is rechecked and released in accordance with point (b) of point ML.A.801 at the earliest opportunity and within a period not exceeding 7 days or, in the case of aircraft operated under Annex VII to Regulation (EU) No 965/2012 (Part-NCO) or, in the case of balloons, not operated under Subpart-ADD of Annex II (Part-BOP) to Regulation (EU) 2018/395 or, in the case of sailplanes not following Subpart DEC of Annex II (Part-SAO) to Regulation (EU) 2018/1976, within a period not exceeding 30 days;
  - (3) notify the contracted CAMO or CAO, or the competent authority in the absence of such a contract, within 7 days of the issuance of such authorisation.
- (d) In the case of a release to service in accordance with points (b)(1) or (b)(2), the certifying staff may be assisted in performing the maintenance tasks by one or more persons subject to his direct and continuous control;
- (e) A CRS shall contain at least:
  - (1) basic details of the maintenance carried out;
  - (2) the date on which the maintenance was completed;
  - (3) the identity of the organisation or person issuing the release to service, including, alternatively:
    - (i) the approval reference of the maintenance organisation and certifying staff issuing the CRS;
    - (ii) in the case of point (b)(2), the identity and, if applicable, the licence number of the independent certifying staff issuing the CRS;
  - (4) the limitations to airworthiness or operations, if any.
- (f) By derogation from point (a) and notwithstanding point (g), when the required maintenance cannot be completed, a CRS may be issued within the approved aircraft limitations. In that case,



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the CRS shall indicate that the maintenance could not be completed, as well as indicate any applicable airworthiness or operations limitations, as part of the information required in point (e)(4).

(g) A CRS shall not be issued in the case of any known non-compliance with the requirements of this Annex which endangers flight safety.

# AMC1 ML.A.801 Aircraft certificate of release to service

ED Decision 2020/002/R

# AIRCRAFT CERTIFICATE OF RELEASE TO SERVICE (CRS) AFTER EMBODIMENT OF A STANDARD CHANGE OR A STANDARD REPAIR (SC/SR)

#### 1. Release to service and eligible persons

Only natural or legal persons entitled to release to service an aircraft after maintenance (see ML.A.801(b)) are considered as an eligible installer responsible for the embodiment of a SC/SR when in compliance with applicable requirements.

Since the design of the SC/SR does not require specific approval, the natural or legal person releasing the embodiment of the change or repair takes the responsibility that the applicable certification specifications within CS-STAN are fulfilled while being in compliance with Part-ML/Part-M Subpart F/Part-CAO and/or Part-145 and not in conflict with the TC holder's data. This includes responsibility in respect of an adequate design, the selection/manufacturing of suitable parts and their identification, documenting the change or repair, generation or amendment of aircraft manuals and instructions as needed, embodiment of the change/repair, releasing the aircraft to service and record-keeping.

Depending on its nature, for certain SCs/SRs, CS-STAN might restrict the eligibility for the issuance of the release to service to certain persons (e.g. standard change/repair not suitable for release to service by the pilot-owner).

NOTE: Until 1 October 2020 (ref. entry into force of Commission Regulation (EU) 2018/1142), it is possible to have aircraft maintenance released to service by the holder of an appropriate certifying staff qualification valid in a Member State (national qualification). In this case, the following conditions apply:

- If the holder signs the release to service on behalf of a maintenance organisation, this
  release is valid regardless of the Member State where the aircraft is registered.
- If the holder signs the release to service as an independent certifying staff, this release is only valid in the Member State responsible for such certifying staff qualification and where the aircraft is registered.

#### 2. Parts and appliances to be installed as part of a SC/SR

The design of the parts and appliances to be used in a SC/SR is considered a part of the change/repair, and, therefore, there is no need of a specific design approval. However, it is possible that for a particular SC, these certification specifications specifically require the use of parts and appliances that meet a technical standard. In this case, when the parts and appliances are required to be authorised as an ETSO article, other articles recognised as equivalent by means of an international safety agreement or grandfathered in accordance with Regulation (EU) No 748/2012 are equally acceptable.

Normally, a SC/SR shall not contain specifically designed parts that should be produced by a production organisation approved in accordance with Part 21 (POA). However, in the case that

the change or repair would contain such a part, it should be produced by an approved production organisation (POA holder), and delivered with an EASA Form 1. An arrangement in accordance with 21.A.122(b) is not applicable.

Eligibility for installation of parts and appliances belonging to a SC/SR is subject to compliance with the Part 21 and Part-ML and maintenance-organisation-related provisions, and the situation varies depending on the aircraft in/on which the SC/SR is to be embodied, and who the installer is. The need for an EASA Form 1 is addressed in Part 21 and Part-ML, while less restrictive rules may, for instance, apply for ELA1 and ELA2 aircraft parts (e.g. 21.A.307) and sailplane parts (e.g. AMC 21.A.303 of the 'AMC and GM to Part 21'). Furthermore, Part-M Subpart F, Part-CAO and Part-145 contain provisions (i.e. M.A.603(c), CAO.A.020(c) and 145.A.42(c)) that allow maintenance organisations to fabricate certain parts to be installed in/on the aircraft as part of their maintenance activities.

#### 3. Parts' and appliances' identification

The parts modified or installed during the embodiment of the SC/SR need to be permanently marked in accordance with Part 21 Subpart Q.

#### 4. Documenting the SC/SR and declaring compliance with the certification specifications

In accordance with Part-ML, Part-M Subpart F, Part-CAO or Part-145 (e.g. ML.A.801(e), M.A.612, CAO.A.065 and 145.A.50(b)), the legal or natural person responsible for the embodiment of a change or a repair should compile details of the work accomplished. In the case of SCs/SRs, this includes, as necessary, based on the complexity, an engineering file containing drawings, a list of the parts and appliances used for the change or repair, supporting analysis and the results of tests performed or any other evidence suitable to show that the design fulfils the applicable certification specifications within CS-STAN together with a statement of compliance and amendments to aircraft manuals, to instructions for continuing airworthiness and to other documents such as aircraft parts list, wiring diagrams, etc. as deemed necessary. The EASA Form 123 is prepared for the purpose of documenting the preparation and embodiment of the SC/SR. The aircraft logbook should contain an entry referring to EASA Form 123; both EASA Form 123 and the release to service required after the embodiment of the SC/SR should be signed by the same person.

EASA Form 123 and all the records listed on it should follow elementary principles of controlled documentation, e.g. contain reference number of documents, issue dates, revision numbers, name of persons preparing/releasing the document, etc.

#### 5. Record-keeping

The legal or natural person responsible (see paragraph 1. above) for the embodiment of the change/repair should keep the records generated with the SC/SR as required by Part-ML, Part-M Subpart F, Part-CAO or Part-145 and CS-STAN.

In addition, ML.A.305 requires that the aircraft owner (or CAMO or CAO, if a contract in accordance with ML.A.201 exists) keeps the status of the changes/repairs embodied in/on the aircraft in order to control the aircraft configuration and manage its continuing airworthiness.

With regard to SCs/SRs, the information provided to the owner, CAMO or CAO may be listed in EASA Form 123 and should include, as required, a copy of any modified aircraft manual and/or instructions for continuing airworthiness. All this information should normally be consulted when the aircraft undergoes an AR, and, therefore, a clear system to record the embodiment of SCs/SRs, which is also easily traceable, would be of help during subsequent aircraft inspections.

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#### 6. Instructions for continuing airworthiness (ICA)

As stipulated in ML.A.302, the aircraft owner, CAMO or CAO needs to assess if the changes in the ICA of the aircraft require the amendment of the AMP.

#### 7. Embodiment of more than one SC

The embodiment of two or more related SCs described in Subpart B of CS-STAN is permitted as a single change (the use of one EASA Form 123 only) as long as adequate references to and records of all SCs embodied are captured. Restrictions and limitations of the two (or more) SCs would apply. It is permitted to issue a single release to service containing adequate traceability of all the SCs embodied.

#### 8. Acceptable form to be used to record the embodiment of SCs/SRs

See EASA Form 123.

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#### EASA Form 123 — Standard Change/Standard Repair (SC/SR) embodiment record

EA	ASA Form 123 — Standard Change/Standard Repair (SC/SR) embodime	ent record	1. SC/SR number(s):	
2.	SC/SR title & description:			
3.	Applicability:			
	List of parts (description/Part-No/Qty):			
	Operational limitations/affected aircraft manuals. Copies of these ma owner:		ovided to the aircraft	
	Documents used for the development and embodiment of this SC/SR  Copies of the documents marked with an asterisk are handed to the air			
7.	Instructions for continuing airworthiness. Copies of these manuals are	e provided t	o the aircraft owner:	
8.	Other information:			
9a.	<ul> <li>This SC complies with the criteria established in 21.A.90B(a) and CS-STAN.</li> </ul>	with the rel	evant paragraphs of	
9b.	<ul> <li>This SR complies with the criteria established in 21.A.431B(a) an CS-STAN.</li> </ul>	d with the re	elevant paragraphs of	
10	11. Identification data and sign for the embodiment of the		e person responsible	
12.	12. Signature of the aircraft owner. This signature attests that all relevant documentation is handed over from the issuer of this form to the aircraft owner, and, therefore, the latter becomes aware of any impact or limitations on operations or additional continuing airworthiness requirements which may apply to the aircraft due to the embodiment of the change/repair.			

#### Form 123 Issue 00

#### Notes:

Original remains with the legal or natural person responsible for the embodiment of the SC/SR.

The aircraft owner should retain a copy of this form.

The aircraft owner should be provided with copies of the documents referenced in boxes 5 and 7 and those in box 6 marked with an asterisk '\*'.

The 'relevant paragraphs' in boxes 9a and 9b refer to the applicable paragraphs of 'Subpart A – General' of CS-STAN and those of the SC/SR quoted in box 2.



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For box 12, when the aircraft owner has signed a contract in accordance with ML.A.201, it is possible that the CAMO or CAO representative signs box 12 and provides all relevant information to the owner before next flight.

#### **Completion instructions:**

Use English or the official language of the State of registry to fill in the form.

- 1. Identify the SC/SR with a unique number and reference this number in the aircraft logbook.
- 2. Specify the applicable EASA CS-STAN chapter including revision (e.g. CS-SCxxxy or CS-SRxxxy) & title. Provide also a short description.
- 3. Identify the aircraft (a/c) registration, serial number and type.
- 4. List the parts' numbers and description for the parts installed. Refer to an auxiliary document if necessary.
- 5. Identify affected aircraft manuals.
- 6. Refer to the documentation developed to support the SC/SR and its embodiment, including design data required by CS-STAN: design definition, documents recording the showing of compliance with the certification specifications or any test result, etc. The documents' references should quote their revision/issue.
- 7. Identify instructions for continuing airworthiness that need to be considered for the aircraft maintenance programme review.
- 8. To be used as deemed necessary by the installer.
- 9a., 9b., 10. and 12. Self-explanatory.
- 11. Give full name details and certificate reference (of the natural or legal person) used for issuing the aircraft release to service.

# AMC1 ML.A.801(e) Aircraft certificate of release to service

ED Decision 2020/002/R

- (a) The aircraft CRS should contain one of the following statements:
  - (1) 'certifies that the work specified, except as otherwise specified, was carried out in accordance with Part-ML, and in respect to that work, the aircraft is considered ready for release to service.'; or
  - (2) for a pilot-owner:
    - 'certifies that the limited pilot-owner maintenance specified, except as otherwise specified, was carried out in accordance with Part-ML, and in respect to that work, the aircraft is considered ready for release to service.'.
- (b) The CRS should relate to the task specified in the DAH's or operator's instruction or the AMP which itself may cross-refer to a DAH's/operator's instruction in a maintenance manual, service bulletin, etc. This should indicate the revision status of the maintenance instruction used.
- (c) The CRS should include the date when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/ landings etc. as appropriate.
- (d) When extensive maintenance has been carried out, it is acceptable for the CRS to summarise the maintenance as long as there is a unique cross reference to the work pack containing full details of the maintenance carried out. Dimensional information should be retained in the work pack record.
- (e) The person issuing the CRS should use his or her normal signature except in the case where a computer release-to-service system is used. In this latter case, the competent authority needs to be satisfied that only this particular person may electronically issue the CRS. One such method of compliance is the use of a magnetic or optical personal card in conjunction with a personal identification number (PIN) known only to the individual, which is keyed into the computer. A certification stamp is optional.

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- (f) At the completion of all maintenance, owners, certifying staff, operators and maintenance organisations should ensure they have a clear, concise and legible record of the work performed.
- (g) In the case of an ML.A.801(b)(2) CRS, the independent certifying staff should retain all records necessary to prove that all requirements have been met for the issuance of a CRS.

### AMC1 ML.A.801(f) Aircraft certificate of release to service

ED Decision 2020/002/R

Certain maintenance data issued by the DAH (e.g. AMM) requires that a maintenance task be performed in flight as a necessary condition to complete the maintenance ordered. Within the aircraft limitations, the person authorised to certify the maintenance per ML.A.801 should release the incomplete maintenance before this flight. GM1 ML.A.301(f) describes the relations with the aircraft operator, which retains the responsibility for the MCF. After performing the flight and any additional maintenance necessary to complete the maintenance ordered, a CRS should be issued in accordance with ML.A.801.

# ML.A.802 Component certificate of release to service

Regulation (EU) 2019/1383, Regulation (EU) 2021/700

- (a) A component CRS shall be issued after the required maintenance has been carried out properly on an aircraft component in accordance with point ML.A.502.
- (a) Except for the cases covered by point (c) of point ML.A.502, a component CRS shall be issued after the required maintenance work has been properly carried out on an aircraft component in accordance with point ML.A.502.
  - [applicable from 18 May 2022]
- (b) The authorised release certificate identified as EASA Form 1, as set out Appendix II of Annex I (Part-M), constitutes the component CRS, except when such maintenance is released at aircraft level, as indicated in point ML.A.502(b).

#### ML.A.803 Pilot-owner authorisation

- (a) To qualify as a pilot-owner, the person must:
  - (1) hold a valid pilot licence or equivalent licence issued or validated by a Member State for the aircraft type or class rating;
  - (2) own the aircraft, either as a sole or joint owner; that owner must be, alternatively:
    - (i) one of the natural persons on the registration form;
    - (ii) a member of a non-profit recreational legal entity, where the legal entity is specified on the registration document as owner or operator; that member must be directly involved in the decision-making process of the legal entity and designated by that legal entity to carry out Pilot-owner maintenance.
- (b) For aircraft operated under Annex VII (Part-NCO) to Regulation (EU) No 965/2012 or, in the case of balloons, not operated under Subpart-ADD of Annex II (Part-BOP) to Regulation (EU) 2018/395 or, in the case of sailplanes, not following Subpart DEC of Annex II (Part-SAO) to



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- Regulation (EU) 2018/1976, the pilot-owner may issue a CRS after limited Pilot-owner maintenance as provided for in Appendix II to this Annex.
- (c) The CRS shall be entered in the logbooks and contain basic details of the maintenance carried out, the maintenance data used, the date on which that maintenance was completed, as well as the identity, the signature and the pilot licence (or equivalent) number of the pilot-owner issuing such a certificate.

### AMC1 ML.A.803 Pilot-owner authorisation

ED Decision 2020/002/R

- (a) A pilot-owner may only issue a CRS for the maintenance he or she has performed (ref. ML.A.201(c), ML.A.801 and ML.A.803).
- (b) In the case of jointly-owned aircraft, the AMP should list the names of all pilot-owners that are competent and designated to perform pilot-owner maintenance (ref. ML.A.302(c)(6)). As an alternative, the AMP may contain a procedure to ensure how such a list should be managed and kept current.
- (c) An equivalent valid pilot-owner licence may be any document attesting a pilot qualification recognised by the Member State.
- (d) Not holding a valid medical examination does not invalidate the pilot licence (or equivalent) required under ML.A.803(a)(1) for the purpose of the pilot-owner authorisation.



# SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE (ARC)

# ML.A.901 Aircraft airworthiness review

Regulation (EU) 2021/700

To ensure the validity of the aircraft airworthiness certificate, an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically.

- (a) An ARC is issued in accordance with Appendix IV (<u>EASA Form 15c</u>) to this Annex upon completion of a satisfactory airworthiness review. The ARC shall be valid for 1 year;
- (b) The airworthiness review and the issuance of the ARC shall be performed in accordance with point ML.A.903, alternatively by:
  - (1) the competent authority;
  - (2) an appropriately approved CAMO or CAO;
  - (3) the approved maintenance organisation while performing the 100-h/annual inspection contained in the AMP;
  - (4) for aircraft operated under Annex VII (Part-NCO) to Regulation (EU) No 965/2012 or, in the case of balloons, not operated under Subpart-ADD of Annex II (Part-BOP) to Regulation (EU) 2018/395¹ or, in the case of sailplanes, not following Subpart DEC of Annex II (Part-SAO) to Regulation (EU) 2018/1976², the independent certifying staff while performing the 100-h/annual inspection contained in the AMP, when holding:
    - (i) a licence issued in accordance with Annex III (Part-66) rated for the corresponding aircraft or, if Annex III (Part-66) is not applicable to the particular aircraft, a national certifying-staff qualification valid for that aircraft;
    - (ii) an authorisation issued by, alternatively:
      - (A) the competent authority who issued the licence issued in accordance with Annex III (Part-66),
      - (B) if Annex III (Part-66) is not applicable, the competent authority responsible for the national certifying-staff qualification.

Independent certifying staff holding a licence issued in accordance with Annex III (Part-66), may perform airworthiness reviews and issue the ARC for aircraft registered in any Member State. However, independent certifying staff holding a national qualification shall only perform airworthiness reviews and issue the ARC for aircraft registered in the Member State responsible for the national qualification.

ARCs issued by independent certifying staff holding a national qualification shall not benefit from mutual recognition when transferring the aircraft to another Member State.

Whenever circumstances reveal the existence of a potential safety threat, the competent authority shall carry out the airworthiness review and issue the ARC itself.

Commission Regulation (EU) 2018/395 of 13 March 2018 laying down detailed rules for the operation of balloons pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 71, 14.3.2018, p. 10).

<sup>&</sup>lt;sup>2</sup> Commission Implementing Regulation (EU) 2018/1976 of 14 December 2018 laying down detailed rules for the operation of sailplanes pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council (OJ L 326, 20.12.2018, p. 64).

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- (c) The validity of an ARC may be extended maximum two consecutive times, for a period of one year each time, by an appropriately approved CAMO or CAO, subject to the following conditions:
  - (1) the aircraft has been continuously managed for the previous 12 months by this CAMO or CAO;
  - (2) the aircraft has been maintained for the previous 12 months by approved maintenance organisations; this includes pilot-owner maintenance tasks carried out and released to service either by the pilot-owner or by independent certifying staff;
  - (3) the CAMO or CAO does not have any evidence or reason to believe that the aircraft is not airworthy.

This extension by the CAMO or CAO is possible regardless of which staff or organisation, as provided for in point (b), initially issued the ARC.

- (d) By derogation from point (c), the extension of the ARC may be anticipated for a maximum period of 30 days, without loss of continuity of the airworthiness review pattern, to ensure the availability of the aircraft in order to place the original ARC on board.
- (e) When the competent authority carries out the airworthiness review and issues the ARC itself, the owner shall provide the competent authority with:
  - (1) the documentation required by the competent authority;
  - (2) suitable accommodation at the appropriate location for its personnel;
  - (3) when necessary, the support of appropriate certifying staff.

### GM1 ML.A.901 Aircraft airworthiness review

ED Decision 2020/002/R

If a CAMO/CAO holding the AR privilege is contracted by the owner, this organisation does not have the obligation to carry out the AR itself. The owner may select another CAMO or CAO to carry out the AR, or request the maintenance organisation to carry it out and issue the ARC in conjunction with the annual inspection.

Please refer to GM1 ML.A.201 to identify the cases where the owner may also request an independent certifying staff (authorised by the competent authority) to carry out the AR and issue the ARC in conjunction with the annual inspection.

Point ML.A.901(b) gives a list of the different organisations or persons that are allowed to perform an AR; it does not presume that they have the obligation to accept a request to carry out an AR.

# ML.A.902 Validity of the airworthiness review certificate

- (a) An ARC becomes invalid if, alternatively:
  - (1) it is suspended or revoked;
  - (2) the airworthiness certificate is suspended or revoked;
  - (3) the aircraft is not in the aircraft register of a Member State;
  - (4) the type certificate under which the airworthiness certificate was issued is suspended or revoked.

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- (b) An aircraft shall not fly if the ARC is invalid or if any of the following circumstances are present:
  - (1) the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Annex;
  - (2) the aircraft does not remain in conformity with the type design approved by the Agency;
  - (3) the aircraft has been operated beyond the limitations of the approved flight manual or airworthiness certificate, without appropriate action being taken;
  - (4) the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness;
  - (5) a modification or repair to the aircraft or any component fitted to the aircraft is not in compliance with Annex I (Part-21) to Regulation (EU) No 748/2012.
- (c) Upon surrender or revocation, the ARC shall be returned to the competent authority.

# ML.A.903 Airworthiness review process

- (a) To satisfy the requirement for the airworthiness review of an aircraft referred to in point ML.A.901, the airworthiness review staff shall perform a documented review of the aircraft records to verify that:
  - (1) airframe, engine and propeller flying hours and associated flight cycles have been properly recorded;
  - (2) the flight manual is applicable to the aircraft configuration and reflects the latest revision status;
  - (3) all the maintenance due on the aircraft according to the AMP has been carried out;
  - (4) all known defects have been corrected or deferred in a controlled manner;
  - (5) all applicable ADs have been applied and properly registered;
  - (6) all modifications and repairs made to the aircraft have been registered and are in compliance with Annex I (Part-21) to Regulation (EU) No 748/2012;
  - (7) all service-life-limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit;
  - (8) all maintenance has been certified in accordance with this Annex;
  - (9) if required, the current mass-and-balance statement reflects the configuration of the aircraft and is valid;
  - (10) the aircraft complies with the latest revision of its type design approved by the Agency;
  - (11) if required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with Subpart I of Annex I (Part-21) to Regulation (EU) No 748/2012.
- (b) The airworthiness review staff referred to in point (a) shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified under Annex III (Part-66) shall be assisted by such qualified personnel.
- (c) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:
  - (1) all required markings and placards are properly installed;



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SECTION A — TECHNICAL

REQUIREMENTS

- (2) the aircraft complies with its approved flight manual;
- (3) the aircraft configuration complies with the approved documentation;
- (4) no evident defect can be found that has not been addressed according to point ML.A.403;
- (5) no inconsistencies can be found between the aircraft and the documented review of records as referred to in point (a).
- (d) By derogation from point ML.A.901(a), the airworthiness review may be anticipated for a maximum period of 90 days, without loss of continuity of the airworthiness review pattern, so as to allow the physical review to take place during a maintenance check.
- (e) The ARC (EASA Form 15c) set out to in Appendix IV shall only be issued:
  - (1) by appropriately authorised airworthiness review staff;
  - (2) when the airworthiness review has been completely carried out, all findings have been closed;
  - (3) when any discrepancy found in the AMP in accordance with point (h) has been satisfactorily addressed.
- (f) A copy of any ARC issued or extended for an aircraft shall be sent to the Member State of registry of that aircraft within 10 days.
- (g) Airworthiness review tasks shall not be subcontracted.
- (h) The effectiveness of the AMP may be reviewed in conjunction with the airworthiness review in accordance with point (c)(9) of point ML.A.302. This review shall be completed by the person who performed the airworthiness review. If the review shows deficiencies of the aircraft linked with deficiencies in the content of the AMP, the AMP shall be amended accordingly. The person performing the review shall inform the competent authority of the Member State of registry if he does not agree with the measures amending the AMP taken by the owner, CAMO or CAO. In such case the competent authority shall decide which amendments to the AMP are necessary, raising the corresponding findings defined in point ML.B.903 and, if necessary, reacting in accordance with point ML.B.304.

# AMC1 ML.A.903(h) Airworthiness review

ED Decision 2020/002/R

#### **REVIEW OF AMP IN CONJUNCTION WITH AR**

This review of the maintenance programme is performed by the person who performed the AR, who could belong to the competent authority, a CAMO, a CAO or a maintenance organisation or could also be independent certifying staff in accordance with ML.A.901(b)(4) M.A.901(g).

This person is not responsible for the completeness of this AMP, but may do some sampling as part of the investigations and the findings discovered during the physical review.

More details on the annual review are provided in AMC1 ML.A.302(c)(9).



### ML.A.904 Qualification of airworthiness review staff

Regulation (EU) 2020/270

- (a) Airworthiness review staff acting on behalf of the competent authority shall be qualified in accordance with point ML.B.902.
- (b) Airworthiness review staff acting on behalf of an organisation referred to in Subpart F or Subpart G of Annex I (Part-M), Annex II (Part-145), Annex Vc (Part-CAMO) or Annex Vd (Part-CAO) shall be qualified in accordance with Subpart F or Subpart G of Annex I (Part-M), Annex II (Part-145), Annex Vc (Part-CAMO) or Annex Vd (Part-CAO), respectively.
- (c) Airworthiness review staff acting on their own behalf, as permitted pursuant to point ML.A.901(b)(4), shall:
  - (1) hold a licence issued in accordance with Annex III (Part-66) rated for the corresponding aircraft or, if Annex III (Part-66) is not applicable to the particular aircraft, hold a national certifying-staff qualification valid for that aircraft; and
  - (2) hold an authorisation issued by, alternatively:
    - (i) the competent authority who issued the licence in accordance with Annex III (Part-66);
    - (ii) if Annex III (Part-66) is not applicable, the competent authority responsible for the national certifying-staff qualification.
- (d) The authorisation required under point (c)(2) shall be issued by the competent authority when:
  - (1) the competent authority has assessed that the person has the knowledge of the parts of this Annex relevant to continuing-airworthiness management, performance of airworthiness reviews and issuance of ARCs;
  - (2) the person has satisfactorily performed an airworthiness review under the supervision of the competent authority.

This authorisation shall remain valid for a duration of 5 years as long as the holder has performed at least 1 airworthiness review every 12-months. If this is not the case, a new airworthiness review shall be satisfactorily performed under the supervision of the competent authority.

Upon expiration of its validity, the authorisation shall be renewed for another 5 years subject to a new compliance with points (d)(1) and (d)(2). There is no limit to the number of renewals.

The holder of the authorisation shall keep records of all the airworthiness reviews performed and shall make them available, upon request, to any competent authority and to any aircraft owner for whom they are performing an airworthiness review.

This authorisation may be revoked by the competent authority at any time if it is not satisfied with the competence of the holder or with the use of such an authorisation.

# GM1 ML.A.904(c);(d) Qualification of airworthiness review staff

FD Decision 2020/002/R

#### AR BY INDEPENDENT CERTIFYING STAFF

(a) ML.A.904(c) and (d) refer to the independent certifying staff. The terms 'corresponding aircraft' or 'particular aircraft' mean that the person meets at the time of the AR the certifying staff requirements for the aircraft subject to the AR.

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SECTION A — TECHNICAL

REQUIREMENTS

(b) The authorisation issued to the certifying staff by the competent authority is only granted after assessment of the knowledge required in point (d)(1) and after the satisfactory performance of an AR under supervision of the competent authority (point (d)(2)).

# ML.A.905 Transfer of aircraft registration within the Union

Regulation (EU) 2019/1383

- (a) When transferring an aircraft registration within the Union, the applicant shall:
  - (1) first, provide the former Member State with the name of the Member State in which the aircraft will be registered;
  - and subsequently apply to the new Member State for the issuance of a new airworthiness certificate in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012.
- (b) Notwithstanding point (a)(3) of point ML.A.902, the former ARC shall remain valid until its expiry date, except when the ARC was issued by independent certifying staff holding a national certifying-staff qualification in accordance with point (b)(4) of point ML.A.901, in which case point ML.A.906 shall apply.
- (c) Notwithstanding points (a) and (b), in those cases where the aircraft was in a non-airworthy condition in the former Member State or where the airworthiness status of the aircraft cannot be determined using the existing records, point ML.A.906 shall apply.

### ML.A.906 Airworthiness review of aircraft imported into the Union

- (a) When importing an aircraft from a third country onto a Member State register, the applicant shall:
  - (1) apply to the competent authority of the Member State of registry for the issuance of a new airworthiness certificate in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012;
  - (2) for aircraft other than new, have an airworthiness review carried out satisfactorily in accordance with point ML.A.901;
  - (3) have all maintenance carried out to comply with the approved or declared AMP.
- (b) If the aircraft complies with the relevant requirements, the competent authority, the CAMO or CAO, the maintenance organisation or the independent certifying staff performing the airworthiness review, as provided for in point (b) of point ML.A.901, shall issue an ARC and shall submit a copy to the competent authority of the Member State of registry.
- (c) The owner shall allow access to the aircraft for inspection by the competent authority of the Member State of registry.
- (d) A new airworthiness certificate shall be issued by the competent authority of the Member State of registry if the aircraft complies with Annex I (Part-21) to Regulation (EU) No 748/2012.

Annex Vb (Part-ML)

SECTION A — TECHNICAL

REQUIREMENTS

# ML.A.907 Findings

- (a) Findings are categorised as follows:
  - (1) A Level 1 finding is any finding of significant non-compliance with the requirements of this Annex which lowers the safety standard and seriously endangers flight safety.
  - (2) A Level 2 finding is any finding of non-compliance with the requirements of this Annex which may lower the safety standard and may endanger flight safety.
- (b) After receipt of notification of findings in accordance with point <u>ML.B.903</u>, the person or organisation, having responsibilities pursuant to point <u>ML.A.201</u>, shall define and demonstrate to the competent authority within a period agreed with this authority a corrective action plan , aimed at preventing reoccurrence of the finding and its root cause.



### SECTION B — PROCEDURE FOR COMPETENT AUTHORITIES

#### SUBPART A — GENERAL

# ML.B.101 Scope

Regulation (EU) 2019/1383

This Section establishes the administrative requirements to be followed by the competent authorities in charge of the implementation and enforcement of Section A of this Annex.

# ML.B.102 Competent authority

Regulation (EU) 2019/1383

(a) General

A Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of certificates and for the oversight of continuing airworthiness. This competent authority shall establish documented procedures and an organisational structure.

(b) Resources

The number of staff shall be appropriate to satisfy the requirements detailed in this Section.

(c) Qualification and training

All staff involved in activities covered by this Annex shall be appropriately qualified and have appropriate knowledge, experience, initial and continuation training to perform their allocated tasks.

(d) Procedures

The competent authority shall establish procedures detailing how compliance with this Annex is achieved.

The procedures shall be reviewed and amended to ensure continued compliance.

# ML.B.104 Record-keeping

- (a) The competent authority shall establish a system of record-keeping that allows adequate traceability of the process for issuing, continuing, changing, suspending or revoking each certificate and authorisation.
- (b) The records for the oversight of each aircraft shall include, as a minimum, a copy of:
  - (1) the aircraft certificate of airworthiness;
  - (2) ARCs;
  - (3) reports from the airworthiness reviews carried out directly by the Member State;
  - (4) all relevant correspondence relating to the aircraft;
  - (5) details of any exemption and enforcement action(s);

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SECTION B — PROCEDURE FOR

COMPETENT AUTHORITIES

- (6) any document approved by the competent authority pursuant to this Annex or Regulation (EU) No 965/2012.
- (c) The records specified in point (b) shall be retained until 2 years after the aircraft has been permanently withdrawn from service.
- (d) All records specified in point ML.B.104 shall be made available to any other Member State or the Agency upon their request

# ML.B.105 Mutual exchange of information

- (a) In order to contribute to the improvement of aviation safety, the competent authorities shall participate in a mutual exchange of all the necessary information in accordance with Article 72 of Regulation (EC) 2018/1139.
- (b) Without prejudice to the competences of the Member States, in the case of a potential safety threat involving several Member States, the competent authorities concerned shall assist each other in carrying out the necessary oversight action.

Annex Vb (Part-ML)

SECTION B — PROCEDURE FOR

COMPETENT AUTHORITIES

### **SUBPART B — ACCOUNTABILITY**

# ML.B.201 Responsibilities

Regulation (EU) 2019/1383

The competent authority referred to in point (b) of point ML.1 shall be responsible for conducting inspections and investigations in order to verify that the requirements of this Annex are complied with.

# AMC1 ML.B.201 Responsibilities

ED Decision 2020/002/R

Template that can be used by the owner, CAO or CAMO upon request by the competent authority to collect information about the AMP

	Part-ML aircraft maintenance programme (AMP)					
	Aircraft identification					
1	Registration(s):	Туре:		Serial no(s):		
	Owner:	l				
	Which basis i	s used for the	maintenance progra	mme?		
2	Design approval holder (DAH) ICA  Tasks alternative to ICA introduced in AMP? Yes No		Minimum inspection programme (MIP) as detailed the latest revision of AMC ML.A.302(d)  Other MIP complying with ML.A.302(d)			
	Additional maintenance requirem	nents to ICA or pplicable	MIP: deviations intro	duced?		
	Approval/declaration of the maintenance programme (select the appropriate option)					
3	AMP declared by the owner Default AMP (ML.A.302(e)) Approved by the contracted C	CAMO/CAO. Αρ	pproval reference of t	he organisation:		



### **SUBPART C — CONTINUING AIRWORTHINESS**

# **ML.B.302 Exemptions**

Regulation (EU) 2019/1383

All exemptions granted in accordance with Article 71 of Regulation (EC) 2018/1139 shall be recorded and retained by the competent authority.

# ML.B.303 Aircraft continuing-airworthiness monitoring

Regulation (EU) 2019/1383

- (a) The competent authority shall develop a survey programme following a risk-based approach to monitor the airworthiness status of the fleet of aircraft on its register.
- (b) A survey programme shall include sample product surveys of aircraft and shall cover all aspects of airworthiness key risk elements.
- (c) A sample product survey shall sample the airworthiness standards achieved, on the basis of the applicable requirements, and identify any findings.
- (d) Any findings identified shall be categorised in accordance with point <u>ML.B.903</u> and confirmed in writing to the person or organisation responsible pursuant to point <u>ML.A.201</u>. The competent authority shall have a procedure in place to analyse findings as for their safety significance.
- (e) The competent authority shall record all findings and closure actions.
- (f) If during aircraft monitoring, evidence is found showing non-compliance with this or other Annexes, the finding shall be dealt with as provided for by the relevant Annex.
- (g) If so required to ensure appropriate enforcement action, the competent authority shall exchange information on non-compliances identified in accordance with point (f) with other competent authorities.

# AMC1 ML.B.303 Aircraft continuing airworthiness monitoring

ED Decision 2020/002/R

The competent authority survey programme developed in accordance with Part-M (M.B.303) provides an acceptable basic structure for the survey programme required for Part-ML aircraft.

# ML.B.304 Revocation, suspension and limitation

Regulation (EU) 2019/1383

The competent authority shall:

- (a) suspend an ARC on reasonable grounds in the case of a potential safety threat; or
- (b) suspend or revoke an ARC pursuant to point (a) of point ML.B.903.

The competent authority who issued the airworthiness review authorisation pursuant to point (c) of point ML.A.904 for independent certifying staff shall revoke such authorisation if the holder shows poor performance of the airworthiness review or uses such authorisation in inappropriate manner.



# SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE (ARC)

# ML.B.902 Airworthiness review by the competent authority

Regulation (EU) 2020/270

- (a) When the competent authority carries out the airworthiness review and issues the ARC set out in Appendix IV to this Annex (<u>EASA Form 15c</u>), the competent authority shall carry out an airworthiness review in accordance with point <u>ML.A.903</u>.
- (b) The competent authority shall have appropriate airworthiness review staff to carry out the airworthiness reviews. These staff shall have acquired all of the following:
  - (1) at least 3 years of experience in continuing airworthiness;
  - (2) an appropriate licence in compliance with Annex III (Part-66) or a nationally-recognised maintenance personnel qualification appropriate to the aircraft category (when Article 5(6) of Regulation (EU) No 1321/2014 refers to national rules) or an aeronautical degree or equivalent;
  - (3) an appropriate aeronautical-maintenance training;
  - (4) a position that authorises that person to sign on behalf of the competent authority.

Notwithstanding points (1) to (4), the requirement of point <u>ML.B.902(b)(2)</u> may be replaced by 4 years of experience in continuing airworthiness, in addition to those already required by point <u>ML.B.902(b)(1)</u>.

- (c) The competent authority shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training.
- (d) During the performance of the airworthiness review, the competent authority shall have access to the applicable data as specified in points ML.A.305 and ML.A.401.
- (e) The staff that carries out the airworthiness review shall issue an airworthiness review certificate (EASA Form 15c), as set out in Appendix IV, after satisfactory completion of the airworthiness review.
- (f) Whenever circumstances reveal the existence of a potential safety threat, the competent authority shall carry out the airworthiness review and issue the ARC itself.

# ML.B.903 Findings

Regulation (EU) 2019/1383

If during aircraft surveys or by other means, evidence is found showing non-compliance with requirements of this Annex, the competent authority shall:

- (a) for Level 1 findings, require appropriate corrective action to be taken before further flight, and immediately revoke or suspend the ARC; and
- (b) for Level 2 findings, impose the corrective action appropriate to the nature of the finding.



# **APPENDICES TO ANNEX VB (PART-ML)**

# Appendix I — Continuing-airworthiness management contract

Regulation (EU) 2019/1383

- (a) When an owner contracts in accordance with point ML.A.201 a CAMO or CAO to carry out continuing airworthiness management tasks, upon request by the competent authority, a copy of the contract signed by both parties shall be sent by the owner to the competent authority of the Member State of registry.
- (b) The contract shall be developed taking into account the requirements of this Annex and shall define the obligations of the signatories in relation to the continuing airworthiness of the aircraft.
- (c) It shall contain, as a minimum the following information:
  - (1) the aircraft registration, type and serial number;
  - (2) the aircraft owner's or registered lessee's name or company details including the address;
  - (3) details of the contracted CAMO or CAO, including the address;
  - (4) the type of operation.
- (d) It shall state the following:

'The owner entrusts the CAMO or CAO with the management of the continuing airworthiness of the aircraft, the development and approval of a maintenance programme, and the organisation of the maintenance of the aircraft according to said maintenance programme.

According to the present contract, both signatories undertake to follow the respective obligations of this contract.

The owner declares, to the best of its knowledge, that all the information given to the CAMO or CAO concerning the continuing airworthiness of the aircraft is and will be accurate, and that the aircraft will not be altered without prior approval of the CAMO or CAO.

In case of any non-conformity with this contract, by either of the signatories, the contract will become null. In such a case, the owner will retain full responsibility for every task linked to the continuing airworthiness of the aircraft, and the owner will inform the competent authoritie(s) of the Member State of registry within 2 weeks about the termination of the contract.'

- (e) When an owner contracts a CAMO or CAO in accordance with point ML.A.201, the obligations of each party shall be assigned as follows:
  - (1) Obligations of CAMO or CAO:
    - (i) have the aircraft type included in its terms of approval;
    - (ii) respect all the conditions listed below with regard to maintaining the continuing airworthiness of the aircraft:
      - (A) develop and approve the AMP for the aircraft;
      - (B) once it has been approved, provide the owner with a copy of the AMP, as well as a copy of the justifications for any deviations from the DAH's recommendations;
      - (C) organise a bridging inspection using the aircraft's prior AMP;



- (D) organise that all maintenance is carried out by an approved maintenance organisation or, if permitted, by independent certifying staff;
- (E) organise that all applicable ADs are applied;
- (F) organise that all defects discovered during maintenance, airworthiness reviews or reported by the owner are corrected by an approved maintenance organisation or, if permitted, by independent certifying staff;
- (G) coordinate scheduled maintenance, the application of ADs, the replacement of service-life-limited parts, and component inspection requirements;
- (H) inform the owner each time the aircraft must be brought to an approved maintenance organisation or, if permitted, to independent certifying staff;
- (I) manage and archive all technical records;
- (iii) organise the approval of any modification to the aircraft in accordance with Annex I to Regulation (EU) No 748/2012 (Part-21) before this modification is embodied;
- (iv) organise the approval of any repair to the aircraft in accordance with Annex I to Regulation (EU) No 748/2012 (Part-21) before this repair is carried out;
- inform the competent authority of the Member State of registry whenever the aircraft is not presented by the owner for maintenance as requested by the contracted CAMO or CAO;
- (vi) inform the competent authority of the Member State of registry whenever the present contract has not been respected;
- (vii) ensure that the airworthiness review of the aircraft is carried out, when necessary, and ensure that the ARC is issued;
- (viii) send within 10 days a copy of any ARC issued or extended to the competent authority of the Member State of registry;
- (ix) carry out all occurrence reporting mandated by applicable regulations;
- (x) inform the competent authority of the Member State of registry whenever the present contract is denounced by either party.

#### (2) Obligations of the owner:

- (i) have a general understanding of the AMP;
- (ii) have a general understanding of this Annex;
- (iii) present the aircraft for maintenance as directed by the contracted CAMO or CAO;
- (iv) not modify the aircraft without first consulting the contracted CAMO or CAO;
- (v) inform the contracted CAMO or CAO of all maintenance exceptionally carried out without the knowledge and control of the contracted CAMO or CAO;
- (vi) report to the contracted CAMO or CAO through the logbook all defects found during operations;
- (vii) inform the competent authority of the Member State of registry whenever the present contract is denounced by either party;
- (viii) inform the competent authority of the Member State of registry and the contracted CAMO or CAO whenever the aircraft is sold;



- (ix) carry out all occurrence reporting mandated by applicable regulations;
- (x) inform on a regular basis the contracted CAMO or CAO about the aircraft flying-hours and any other utilisation data, as agreed with the contracted CAMO or CAO;
- (xi) enter the CRS in the logbooks, as mentioned in point ML.A.803(c), when performing pilot-owner maintenance;
- (xii) inform the contracted CAMO or CAO no later than 30 days after completion of any Pilot-owner maintenance task.



# Appendix II — Limited Pilot-owner maintenance

Regulation (EU) 2019/1383

In addition to the requirements laid down in this Annex, the pilot-owner shall comply with the following basic principles before it carries out any maintenance task:

#### (a) Competence and responsibility

- (1) The pilot-owner shall always be responsible for any maintenance he performs.
- (2) The pilot-owner shall hold satisfactory level of competence to perform the task. It is the responsibility of a pilot-owner to familiarise himself with the standard maintenance practices for his aircraft and with the AMP.

#### (b) Tasks

The Pilot-owner may carry out simple visual inspections or operations to check the airframe, engines, systems and components for general condition, obvious damage and normal operation.

A maintenance task shall not be released by the pilot-owner if any of the following conditions occurs:

- (1) it is a critical maintenance task;
- (2) it requires the removal of major components or a major assembly;
- (3) it is carried out in compliance with an AD or an airworthiness limitation item (ALI) unless specifically allowed in the AD or the ALI;
- (4) it requires the use of special tools or calibrated tools (except for torque wrench and crimping tool);
- (5) it requires the use of test equipment or special testing (e.g. non-destructive testing (NDT), system tests or operational checks for avionics equipment);
- (6) it is composed of any unscheduled special inspections (e.g. heavy-landing check);
- (7) it affects systems essential for the instrumental flight rules (IFR) operations;
- (8) it is a complex maintenance task in accordance with Appendix III, or it is a component maintenance task in accordance with point (a) or (b) of point ML.A.502;
- (9) it is part of the 100-h/annual check (for those cases the maintenance task is combined with the airworthiness review performed by maintenance organisations or independent certifying staff).

The criteria referred to in points (1) to (9) cannot be overridden by less restrictive instructions issued in accordance with the AMP referred to in point ML.A.302.

Any task described in the aircraft flight manual (or other operational manuals), for example preparing the aircraft for flight (assembling the sailplane wings, or performing a preflight inspection, or assembling a basket, burner, fuel cylinders and an envelope combination for a balloon, etc.), is not considered a maintenance task and, therefore, does not require a CRS. Nevertheless, the person assembling those parts is responsible for ensuring that those parts are eligible for installation and in a serviceable condition.

#### (c) Performance and records of the pilot-owner maintenance tasks

The maintenance data, as specified in point ML.A.401, must always be available during the conduct of pilot-owner maintenance and must be complied with. Details of the data referred to

in the conduct of pilot-owner maintenance must be included in the CRS in accordance with point (d) of point ML.A.803.

The pilot-owner must inform the contracted CAMO or CAO (if such contract exists) about the completion of the pilot-owner maintenance tasks no later than 30 days after completion of these tasks in accordance with point (a) of point ML.A.305.

# AMC1 to Appendix II to Part-ML — Limited pilot-owner maintenance

FD Decision 2020/002/F

- (a) The lists below specifies items that may be expected to be completed by an owner who holds a current and valid pilot licence for the aircraft type involved and who meets the competence and responsibility requirements of Appendix II to Part-ML.
- (b) The list of tasks may not address in a detailed manner the specific needs of the various aircraft categories. In addition, the development of technology and the nature of the operations undertaken by these categories of aircraft may not always be adequately considered.
- (c) Any other task meeting the requirements of Appendix II to Part-ML may also be performed by the pilot-owner.
- (d) Therefore, the following lists are considered to meet the representative scope of limited pilot-owner maintenance referred to in ML.A.803 and Appendix II to Part-ML:
  - (1) Part A applies to aeroplanes;
  - (2) Part B applies to rotorcraft;
  - (3) Part C applies to sailplanes and powered sailplanes; and
  - (4) Part D applies to balloons and airships.
  - (e) Inspection tasks/checks of any periodicity included in an approved maintenance programme can be carried out provided that the specified tasks are compliant with the basic principles of Appendix II to Part-ML.

The content of periodic inspections/checks as well as their periodicity is not regulated or standardised in an aviation specification. It is the decision of the DAH to recommend a schedule for each specific type of inspection/check.

For an inspection/check with the same periodicity for different aircraft, the content may differ and in some cases, may be critically safety-related and need the use of special tools or knowledge and thus, not qualify for pilot-owner maintenance. Therefore, the maintenance carried out by the pilot-owner should not be generalised to specific inspections such as of a 50-h, 100-h or 6-month periodicity.

The inspections to be carried out are limited to those areas and tasks listed in this AMC to Appendix II; this allows flexibility in the development of the maintenance programme and does not limit the inspection to certain specific periodic inspections. A 50-h/6-month periodic inspection for a fixed-wing aeroplane as well as the 1-year inspection for a glider may normally be eligible for pilot-owner maintenance.

#### **TABLES**

Note: Tasks in Part A or Part B marked with '\*\*' exclude IFR operations following pilotowner maintenance. For these aircraft to operate under IFR, these tasks should be released by an appropriate certifying staff.



#### <u>Part A — PILOT-OWNER MAINTENANCE TASKS FOR POWERED AIRCRAFT (AEROPLANES)</u>

ATA	Area	Task	Aeroplanes
09	Towing	Tow release unit and tow cable retraction mechanism — cleaning, lubrication and tow cable replacement (including weak links)	Yes
		Mirror — installation and replacement of mirrors	Yes
11	Placards	Placards, markings — installation and renewal of placards and markings required by the AFM and the AMM	Yes
12	Servicing	Those items not requiring a disassembly of other than non- structural items, such as cover plates, cowlings and fairings — lubrication	Yes
20	Standard practices	Safety wiring — replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems	Yes
		Simple non-structural standard fasteners — replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting	Yes
21	Air conditioning	Replacement of flexible hoses and ducts	Yes
23	Communication	Communication devices — remove and replace self-contained, instrument-panel-mounted communication devices with quick-disconnect connectors, excluding IFR operations	Yes**
24	Electrical power	Batteries — replacement and servicing	Yes
		Wiring — repairing broken circuits in non-critical equipment, excluding ignition system, primary generating system and required communication, as well as navigation system and primary flight instruments	Yes
		Bonding — replacement of broken bonding cable	Yes
		Fuses — replacement using the correct rating	Yes
25	Equipment	Safety belts — replacement of safety belts and harnesses excluding belts fitted with airbag systems	Yes
		Seats — replacement of seats or seat parts not involving disassembly of any primary structure or control system	Yes
		Non-essential instruments and/or equipment — replacement of self-contained, instrument-panel-mounted equipment with quick-disconnect connectors	Yes
		Oxygen system — replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems	Yes
		Emergency locator transmitter (ELT) — removal/reinstallation	Yes
27	Flight controls	Removal or reinstallation of co-pilot control column and rudder pedals where design provides for quick disconnect	Yes
28	Fuel system	Fuel filter elements — cleaning and/or replacement	Yes
30	Ice and rain protection	Windscreen wiper — replacement of wiper blade	Yes
31	Instruments	Instrument panel — removal and reinstallation provided that this is a design feature with quick-disconnect connectors, excluding IFR operations	Yes**

ATA	Area	Task	Aeroplanes
		Pitot-static system — simple sense and leak check, excluding IFR operations	Yes**
		Drainage — drainage of water drainage traps or filters within the pitot-static system, excluding IFR operations	Yes**
		Instruments — checking of markings for legibility and that those readings are consistent with ambient conditions	Yes
32	Landing gear	Wheels — removal, replacement and servicing, including replacement of wheel bearings and lubrication	Yes
		Servicing — replenishment of hydraulic fluid	Yes
		Shock absorber — replacement of elastic cords or rubber dampers	Yes
		Shock struts — replenishment of oil or air	Yes
		Skis — changing between wheel and ski landing gear	Yes
		Landing skids — replacement of landing skids and skid shoes	Yes
		Wheel fairings (spats) — removal and reinstallation	Yes
		Mechanical brakes — adjustment of simple cable-operated systems	Yes
		Brake — replacement of worn brake pads	Yes
33	Lights	Lights — replacement of internal and external bulbs, filaments, reflectors and lenses	Yes
34	Navigation	Software — updating self-contained, instrument-panel-mounted software, excluding automated flight control systems and transponders	Yes
		Navigation devices — removal and replacement of self-contained, instrument-panel-mounted navigation devices with quick-disconnect connectors, excluding automated flight control systems, transponders, primary flight control system and IFR operations	Yes**
		Self-contained data logger — installation, data restoration	Yes
51	Structure	Fabric patches — simple patches extending over no more than one rib, and not requiring rib stitching or removal of structural parts or control surfaces	Yes
		Protective coating — application of preservative material or coatings where no disassembly of any primary structure or operating system is involved	Yes
		Surface finish — minor restoration (where no disassembly of any primary structure or operating system is involved), including application of signal coatings or thin foils as well as registration markings	Yes
		Fairings — simple repairs to non-structural fairings and cover plates that do not change the contour	Yes
52	Doors and hatches	Doors — removal and reinstallation	Yes
53	Fuselage	Upholstery, furnishing — minor repairs that do not require disassembly of primary structure or operating systems, or interfere with control systems	Yes
56	Windows	Side windows — replacement if no riveting, bonding or any special process is required	Yes
61	Propeller	Spinner — removal and reinstallation	Yes

ATA	Area	Task	Aeroplanes
71 Power plant installation		Cowling — removal and reinstallation not requiring removal of propeller or disconnection of flight controls	Yes
		Induction system — inspection and replacement of induction air filter	Yes
72	Engine	Chip detectors — removal, checking and reinstallation provided that the chip detector is of a non-electrically-indicated self-sealing type	Yes
73	Engine fuel	Strainer or filter elements — cleaning and/or replacement	Yes
		Fuel — mixing of required oil into fuel	Yes
74	Ignition	Spark plugs — removal, cleaning, adjustment and reinstallation	Yes
75	Cooling	Coolant — replenishment of coolant fluid	Yes
77	Engine-indicating system	Engine-indicating system — removal and replacement of self- contained, instrument-panel-mounted indicators that have quick- release connectors and do not employ direct reading connections	Yes
79	Oil system	Strainer or filter elements — cleaning and/or replacement	Yes
		Oil — changing or replenishment of engine oil and gearbox fluid	Yes

#### <u>Part B — PILOT-OWNER MAINTENANCE TASKS FOR ROTORCRAFT</u>

ATA	Area	Task	Rotorcraft
11	Placards	Placards, markings — installation and renewal of placards and markings required by the AFM and the AMM	Yes
12	Servicing	Fuel, oil, hydraulic, de-iced and windshield liquid replenishment	Yes
		Those items not requiring a disassembly of other than non- structural items, such as cover plates, cowlings and fairings — lubrication	Yes
20	Standard practices	Safety wiring — replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems	Yes
		Simple non-structural standard fasteners — replacement and adjustment, excluding latches as well as the replacement of receptacles and anchor nuts requiring riveting	Yes
21	Air conditioning	Replacement of flexible hoses and ducts	Yes
23	Communication	Communication devices — removal and replacement of self- contained, instrument-panel-mounted communication devices with quick-disconnect connectors, excluding IFR operations	Yes**
24	Electrical power	Batteries — replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations	Yes**
		Wiring — repairing broken circuits in non-critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments	Yes
		Bonding — replacement of broken bonding cable, excluding bonding of rotating parts and flying controls	Yes
		Fuses — replacement using the correct rating	Yes
25	Equipment	Safety belts — replacement of safety belts and harnesses, excluding belts fitted with airbag systems	Yes
		Seats — replacement of seats or seat parts not involving disassembly of any primary structure or control system, excluding flight crew seats	Yes
		Removal/installation of emergency flotation gears with quick-disconnect connectors	Yes
		Non-essential instruments and/or equipment — replacement of self-contained, instrument-panel-mounted equipment with quick-disconnect connectors	Yes
		ELT — removal/reinstallation	Yes
30	Protection from ice and rain	Windshield wiper replacement	Yes
31	Instruments	Instrument panel — removal and reinstallation provided that it is a design feature with quick-disconnect connectors, excluding IFR operations	Yes**
		Pitot-static system — simple sense and leak check, excluding IFR operations	Yes**
		Drainage — drainage of water drainage traps or filters within the pitot-static system, excluding IFR operations	Yes**
		Instruments — checking of markings for legibility and that those readings are consistent with ambient conditions	Yes
32	Landing gear	Wheels — removal, replacement and servicing, including replacement of wheel bearings and lubrication	Yes

ATA	Area	Task	Rotorcraft
		Replacement of skid wear shoes	Yes
		Fitting and removal of snow landing pads	Yes
		Servicing — replenishment of hydraulic fluid	Yes
		Brake — replacement of worn brake pads	Yes
33	Lights	Lights — replacement of internal and external bulbs, filaments, reflectors and lenses	Yes
34	Navigation	Software — updating of self-contained, instrument-panel-mounted software, excluding automated flight control systems and transponders	Yes
		Navigation devices — removal and replacement of self-contained, instrument-panel-mounted navigation devices with quick-disconnect connectors, excluding automated flight control systems, transponders, primary flight control system and IFR operations	Yes**
		Self-contained data logger — installation, data restoration	Yes
51	Structure	Protective coating — application of preservative material or coatings where no disassembly of any primary structure or operating system is involved	Yes
		Surface finish — minor restoration (where no disassembly of any primary structure or operating system is involved, excluding intervention on main and tail rotors), including application of signal coatings or thin foils as well as registration markings	Yes
		Fairings — simple repairs to non-structural fairings and cover plates that do not change the contour	Yes
52	Doors	Doors — removal and reinstallation	Yes
53	Fuselage	Upholstery, furnishing — minor repairs that do not require disassembly of primary structure or operating systems, or interfere with control systems	Yes
56	Windows	Side windows — replacement if no riveting, bonding or any special process is required	Yes
62	Main rotor	Removal/installation of main-rotor blades (designed for removal where special tools are not required, excluding tail-rotor blades), limited to reinstallation of the same blades previously removed in the original position	Yes
63 65	Transmission	Chip detectors — removal, checking and replacement provided that the chip detector is of a non-electrically-indicated self-sealing type	Yes
67	Flight control	Removal or reinstallation of co-pilot cyclic and collective controls and yaw pedals where design provides for quick disconnect	Yes
71	Power plant installation	Cowlings — removal and refitment	Yes
72	Engine	Chip detectors — removal, checking and reinstallation provided that the chip detector is of a non-electrically-indicated self-sealing type	Yes
79	Oil system	Filter elements — replacement, provided that the element is of the 'spin on/off' type	Yes
		Oil — changing or replenishment of engine oil	Yes

## <u>Part C — PILOT-OWNER MAINTENANCE TASKS FOR SAILPLANES AND POWERED SAILPLANES</u> Abbreviations/acronyms applicable to this Part:

n/a not applicable for this category;

SP sailplane;

SSPS self-sustained powered sailplane; and

SLPS/TMG self-launching powered sailplane/touring motor glider.

ATA	Area	Task	SP	SSPS	SLPS/TMG
08	Weighing	Recalculation, small changes of the trim plan without needing a reweighing	Yes	Yes	Yes
09	Towing	Tow release unit and tow cable retraction mechanism — cleaning, lubrication and tow cable replacement (including weak links)	Yes	Yes	Yes
		Mirror — installation and replacement of mirrors	Yes	Yes	Yes
11	Placards	Placards, markings — installation and renewal of placards and markings required by the AFM and the AMM	Yes	Yes	Yes
12	Servicing	Those items not requiring a disassembly of other than non-structural items, such as cover plates, cowlings and fairings — lubrication	Yes	Yes	Yes
20	Standard practices	Safety wiring — replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems	Yes	Yes	Yes
		Simple non-structural standard fasteners — replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting	Yes	Yes	Yes
		Free play — measurement of the free play in the control system and the wing-to-fuselage attachment, including minor adjustments by simple means provided by the manufacturer	Yes	Yes	Yes
21	Air conditioning	Replacement of flexible hoses and ducts	Yes	Yes	Yes
23	Communication	Communication devices — removal and replacement of self-contained, instrument-panel-mounted communication devices with quick-disconnect connectors	Yes	Yes	Yes
24	Electrical power	Batteries and solar panels — replacement and servicing	Yes	Yes	Yes
		Wiring — installation of simple wiring connections to the existing wiring for additional non-required equipment, such as electric variometers, flight computers, but excluding required communication, navigation systems and engine wiring	Yes	Yes	Yes
		Wiring — repairing of broken circuits in landing light and any other wiring for non-required equipment, such as electrical variometers or flight computers, excluding ignition system, primary generating	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS/TMG
		system, required communication and navigation system, as well as primary flight instruments			
		Bonding — replacement of broken bonding cable	Yes	Yes	Yes
		Switches — this includes soldering and crimping of non-required equipment, such as electrical variometers or flight computers, but excluding ignition system, primary generating system, required communication and navigation system, as well as primary flight instruments	Yes	Yes	Yes
		Fuses — replacement using the correct rating	Yes	Yes	Yes
25	Equipment	Safety belts — replacement of safety belt and harnesses	Yes	Yes	Yes
		Seats — replacement of seats or seat parts not involving disassembly of any primary structure or control system	Yes	Yes	Yes
		Non-essential instruments and/or equipment — replacement of self-contained, instrument-panel-mounted equipment with quick-disconnect connectors	Yes	Yes	Yes
		Removal and installation of non-required instruments and/or equipment	Yes	Yes	Yes
		Wing wiper, cleaner — servicing, removal and reinstallation not involving disassembly or modification of any primary structure and/or control	Yes	Yes	Yes
		Static probes — removal or reinstallation of variometer static-and-total-energy compensation probes	Yes	Yes	Yes
		Oxygen system — replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems	Yes	Yes	Yes
		Air brake chute — installation and servicing	Yes	Yes	Yes
		ELT — removal/reinstallation	Yes	Yes	Yes
26	Fire protection	Fire warning — replacement of sensors and indicators	n/a	Yes	Yes
27	Flight control	Gap seals — installation and servicing if no complete flight control removal is required	Yes	Yes	Yes
		Control system — measurement of the control system travel without removing the control surfaces	Yes	Yes	Yes
		Control cables — simple optical inspection for condition	Yes	Yes	Yes
		Gas dampener — replacement of gas dampener in the control or air brake system	Yes	Yes	Yes
		Co-pilot stick and pedals — removal or reinstallation where design provides for quick disconnect	Yes	Yes	Yes
28	Fuel system	Fuel lines — replacement of prefabricated fuel lines fitted with self-sealing couplings	n/a	Yes	No
		Fuel filter — cleaning and/or replacement	n/a	Yes	Yes
31	Instruments	Instrument panel — removal and reinstallation provided that it is equipped with quick disconnect, excluding IFR operations	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS/TMG
		Pitot-static system — simple sense and leak check	Yes	Yes	Yes
		Instrument panel vibration damper/shock absorbers — replacement	Yes	Yes	Yes
		Drainage — drainage of water drainage traps or filters within the pitot-static system	Yes	Yes	Yes
		Flexible tubes — replacement of damaged tubes	Yes	Yes	Yes
32	Landing gear	Wheels — removal, replacement and servicing, including replacement of wheel bearings and lubrication	Yes	Yes	Yes
		Servicing — replenishment of hydraulic fluid	Yes	Yes	Yes
		Shock absorber — replacement or servicing of elastic cords or rubber dampers	Yes	Yes	Yes
		Shock struts — replenishment of oil or air	Yes	Yes	Yes
		Landing-gear doors — removal or reinstallation and repair including operating straps	Yes	Yes	Yes
		Skis — changing between wheel and ski landing gear	Yes	Yes	Yes
		Skids — removal or reinstallation and servicing of main, wing and tail skids	Yes	Yes	Yes
		Wheel fairings (spats) — removal and reinstallation	Yes	Yes	Yes
		Mechanical brakes — adjustment of simple cable- operated systems	Yes	Yes	Yes
		Brake — replacement of worn brake pads	Yes	Yes	Yes
		Springs — replacement of worn or aged springs	Yes	Yes	Yes
		Gear warning — removal or reinstallation of simple gear-warning systems	Yes	Yes	Yes
33	Lights	Lights — replacement of internal and external bulbs, filaments, reflectors and lenses	n/a	n/a	Yes
34 N	Navigation	Software — updating of self-contained, instrument- panel-mounted software, excluding automated flight control systems and transponders, and including update of non-required instruments/equipment	Yes	Yes	Yes
		Navigation devices — removal and replacement of self-contained, instrument-panel-mounted navigation devices with quick-disconnect connectors, excluding automated flight control systems, transponders, primary flight control system	Yes	Yes	Yes
		Self-contained data logger — installation, data restoration	Yes	Yes	Yes
51	Structure	Fabric patches — simple patches extending over no more than one rib, and not requiring rib stitching or removal of structural parts or control surfaces	Yes	Yes	Yes
		Protective coating — application of preservative material or coatings where no disassembly of any primary structure or operating system is involved	Yes	Yes	Yes
		Surface finish — minor restoration of paint or coating (where the underlying primary structure is not affected), including application of signal coatings or thin foils as well as registration markings	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS/TMG
		Fairings — simple repairs to non-structural fairings and cover plates that do not change the contour	Yes	Yes	Yes
52	Doors	Doors — removal and reinstallation	Yes	Yes	Yes
53	Fuselage	Upholstery, furnishing — minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems	Yes	Yes	Yes
56	Windows	Side windows — replacement if no riveting, bonding or any special process is required	Yes	Yes	Yes
		Canopies — removal and refitment	Yes	Yes	Yes
		Gas dampener — replacement of canopy gas dampener	Yes	Yes	Yes
57	Wings	Wing skids — removal or reinstallation and service of lower wing skids or wing roller including spring assembly	Yes	Yes	Yes
		Water ballast — removal or reinstallation of flexible tanks	Yes	Yes	Yes
		Turbulator and sealing tapes — removal or reinstallation of approved sealing tapes and turbulator tapes	Yes	Yes	Yes
61	Propeller	Spinner — removal and reinstallation	n/a	Yes	Yes
71	Power plant installation	Removal or installation of power plant unit including engine and propeller	n/a	Yes	No
		Cowling — removal and reinstallation not requiring removal of propeller or disconnection of flight controls	n/a	Yes	Yes
		Induction system — inspection and replacement of induction air filter	n/a	Yes	Yes
72	Engine	Chip detectors — removal, checking and reinstallation provided that the chip detector is of a non-electrically indicated self-sealing type	n/a	Yes	Yes
73	Engine fuel	Strainer or filter elements — cleaning and/or replacement	n/a	Yes	Yes
		Fuel — mixing of required oil into fuel	n/a	Yes	Yes
74	Ignition	Spark plugs — removal, cleaning, adjustment and reinstallation	n/a	Yes	Yes
75	Cooling	Coolant — replenishment of coolant fluid	n/a	Yes	Yes
76	Engine controls	Controls — minor adjustments of non-flight or propulsion controls whose operation is not critical for any flight phase	n/a	Yes	No
77	Engine- indicating system	Engine-indicating system — removal and replacement of self-contained instrument-panel-mounted indicators that have quick-release connectors and do not employ direct reading connections	n/a	Yes	Yes
79	Oil system	Strainer or filter elements — cleaning and/or replacement	n/a	Yes	Yes
		Oil — changing or replenishment of engine oil and gearbox fluid	n/a	Yes	Yes



## <u>Part D — PILOT-OWNER MAINTENANCE TASKS FOR BALLOONS/AIRSHIPS</u>

Area and task	Hot-air airship	Hot-air balloon	Gas balloon
(A) ENVELOPE			
(1) Fabric repairs — excluding complete panels (as defined in, and in accordance with, the TC holder's instructions) not requiring load tape repair or replacement	Yes	Yes	NO
(2) Nose line — replacement	Yes	n/a	n/a
(3) Banners — fitment, replacement or repair (without sewing)	Yes	Yes	Yes
(4) Melting link (temperature flag) — replacement	Yes	Yes	n/a
(5) Temperature transmitter and temperature indication cables — removal or reinstallation	Yes	Yes	n/a
(6) Crown line — replacement (where permanently attached to the crown ring)	No	Yes	n/a
(7) Scoop or skirt — replacement or repair (including fasteners)	Yes	Yes	n/a
(B) BURNER			
(8) Burner — cleaning and lubrication	Yes	Yes	n/a
(9) Piezo igniters — adjustment	Yes	Yes	n/a
(10) Burner jets — cleaning and replacement	Yes	Yes	n/a
(11) Burner frame corner buffers — replacement or reinstallation	Yes	Yes	n/a
(12) Burner valves — adjustment of closing valve not requiring special tools or test equipment	Yes	Yes	n/a
(13) Burner hoses – replacement of O-rings in the inlet connection (C) BASKET AND GONDOLA	Yes	Yes	n/a
(14) Basket/gondola frame trim — repair or replacement	Yes	Yes	Yes
(15) Basket/gondola runners (including wheels) — repair or replacement	Yes	Yes	Yes
(16) External rope handles — repair	Yes	Yes	Yes
(17) Seat covers, upholsteries and safety belts — replacement	Yes	Yes	Yes
(D) FUEL CYLINDER	163	165	163
(18) Liquid valve — replacement of O-rings in the outlet	Yes	Yes	No
(E) INSTRUMENTS AND EQUIPMENT	100	1.03	
(19) Batteries — replacement of batteries for self-contained instruments and communication equipment	Yes	Yes	Yes
(20) Communication, navigation devices, instruments and/or equipment — removal and replacement of self-contained, instrument-panel- mounted communication devices with quick-disconnect connectors	Yes	Yes	Yes
(F) ENGINES			
(21) Cleaning and lubrication not requiring disassembly of other than non-structural items, such as cover plates, cowlings and fairings	Yes	n/a	n/a
(21) Cowling removal and refitment not requiring removal of the propeller	Yes	n/a	n/a
(22) Fuel and oil strainers and/or filter elements — removal, cleaning and/or replacement	Yes	n/a	n/a
(23) Batteries — replacement and servicing (excluding servicing of Ni-Cd batteries)	Yes	n/a	n/a
(24) Propeller spinner — removal and installation for inspection	Yes	n/a	n/a

Area and task	Hot-air airship	Hot-air balloon	Gas balloon
(25) Power plant — removal or installation of power plant unit including engine and propeller	Yes	n/a	n/a
(26) Engine chip detectors — removal, checking and replacement	Yes	n/a	n/a
(27) Ignition spark plug — removal or installation and adjustment including gap clearance	Yes	n/a	n/a
(28) Coolant fluid — replenishment	Yes	n/a	n/a
(29) Engine controls — minor adjustments of non-flight or propulsion controls whose operation is not critical for any flight phase	Yes	n/a	n/a
(30) Engine instruments — removal and replacement	Yes	n/a	n/a
(31) Lubrication oil — changing or replenishment of engine oil and gearbox fluid	Yes	n/a	n/a
(32) Fuel lines — replacement of prefabricated hoses with self-sealing couplings	Yes	n/a	n/a
(33) Air filters (if installed) — removal, cleaning and replacement	Yes	n/a	n/a



## Appendix III — Complex maintenance tasks not to be released by the Pilot-owner

Regulation (EU) 2020/270

All of the following constitutes the complex maintenance tasks which, according to Appendix II, shall not be carried out by the pilot-owner. Those tasks shall be released either by an approved maintenance organisation or by independent certifying staff:

- (a) the modification, repair or replacement by riveting, bonding, laminating, or welding of any of the following airframe parts:
  - (1) a box beam;
  - (2) a wing stringer or chord member;
  - (3) a spar;
  - (4) a spar flange;
  - (5) a member of a truss type beam;
  - (6) the web of a beam;
  - (7) a keel or chine member of a flying boat hull or a float;
  - (8) a corrugated sheet compression member in a wing or tail surface;
  - (9) a wing main rib;
  - (10) a wing or tail surface brace strut;
  - (11) an engine mount;
  - (12) a fuselage longeron or frame;
  - (13) a member of a side truss, horizontal truss or bulkhead;
  - (14) a seat support brace or bracket;
  - (15) a seat rail replacement;
  - (16) a landing-gear strut or brace strut;
  - (17) an axle;
  - (18) a wheel; and
  - (19) a ski or ski pedestal, excluding the replacement of a low-friction coating;
- (b) the modification or repair of any of the following parts:
  - (1) aircraft skin or the skin of an aircraft float if the work requires the use of a support, jig or fixture;
  - (2) aircraft skin that is subject to pressurisation loads if the damage to the skin measures more than 15 cm (6 in.) in any direction;
  - (3) a load-bearing part of a control system, including a control column, pedal, shaft, quadrant, bell crank, torque tube, control horn and forged or cast bracket, but excluding:
    - (i) the swaging of a repair splice or cable fitting; and
    - (ii) the replacement of a push-pull tube end fitting that is attached by riveting;

- (4) any other structure not listed in point (a) that a manufacturer has identified as primary structure in their maintenance manual, structural repair manual or instructions for continuing airworthiness;
- (c) the performance of all of the following maintenance on a piston engine:
  - (1) dismantling and subsequent reassembling of a piston engine other than:
    - (i) to obtain access to the piston/cylinder assemblies; or
    - (ii) to remove the rear accessory cover to inspect and/or replace oil pump assemblies, where such work does not involve the removal and refitment of internal gears;
  - (2) dismantling and subsequent reassembling of reduction gears;
  - (3) welding and brazing of joints, other-than-minor weld repairs to exhaust units carried out by a suitably approved or authorised welder but excluding component replacement;
  - (4) the disturbing of individual parts of units which are supplied as bench-tested units except for the replacement or adjustment of items normally replaceable or adjustable in service;
- (d) the balancing of a propeller, except:
  - (1) for the certification of static balancing where required by the maintenance manual; and
  - (2) dynamic balancing on installed propellers using electronic balancing equipment where permitted by the maintenance manual or other approved airworthiness data;
- (e) any additional task that requires:
  - (1) specialised tooling, equipment or facilities; or
  - (2) significant coordination procedures because of the extensive duration of the tasks and the involvement of several persons.

## Appendix IV — Airworthiness review certificate (EASA Form 15c)

Regulation (EU) 2021/700

NOTE: persons and organisations performing the airworthiness review in combination with the 100-h/annual inspection may use the reverse side of this form in order to issue the CRS referred to in point ML.A.801 corresponding to the 100-h/annual inspection.

AIRWORTHINESS REVIEW CERTIFICATE (ARC) (for aircraft complying with Part-ML)
ARC reference:
Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council:
[NAME OF THE COMPETENT AUTHORITY]
hereby certifies that:
$\square$ it has performed an airworthiness review in accordance with Regulation (EU) No 1321/2014 on the following aircraft:
[or]
$\square$ the following new aircraft:
Aircraft manufacturer:Manufacturer's designation:
Aircraft registration:Aircraft serial number:
(and) is considered airworthy at the time of the review.
Date of issue:
Airframe flight hours (FH) at date of review (*):
Signed: Authorisation No (if applicable):
[OR]
[NAME OF APPROVED ORGANISATION, ADDRESS and APPROVAL REFERENCE] (**) [or]
[FULL NAME OF THE CERTIFYING STAFF AND PART-66 LICENCE NUMBER (OR NATIONAL EQUIVALENT)] (**)
hereby certifies that it has performed an airworthiness review in accordance with Regulation (EU) No 1321/2014 on the following aircraft:
Aircraft manufacturer:Manufacturer's designation:
Aircraft registration:Aircraft serial number:
(and) is considered airworthy at the time of the review.
Date of issue:
Airframe flight hours (FH) at date of review (*):
Signed: Authorisation No (if applicable):



Annex Vb (Part-ML)

APPENDICES TO ANNEX Vb (Part-ML)

1st Extension: The aircraft complies with the condition	s of point ML.A.901(c) of Annex Vb (Part-ML)
Date of issue:	Date of expiry:
Airframe flight Hours (FH) at date of issue (*):	
Signed:	Authorisation No:
Company name:	Approval reference:
2nd Extension: The aircraft complies with the conditio	ns of point ML.A.901(c) of Annex Vb (Part-ML)
Date of issue:	Date of expiry:
Airframe flight hours (FH) at date of issue (*):	
Signed:	Authorisation No:
Company name:	. Approval reference:

EASA Form 15c, Issue 4

<sup>(\*)</sup> except for balloons and airships

<sup>(\*\*)</sup> The issuer of the Form can tailor it to his need by deleting the name, the certifying statement, the reference to the subject aircraft and the issuance details that are not relevant for his use.



# ANNEX VC (PART-CAMO) GENERAL

## **GM1 to Annex Vc (Part-CAMO) Definitions**

ED Decision 2020/002/R

For the purpose of the AMC & GM to Part-CAMO, the following definitions are used:

Audit	refers to a systematic, independent, and documented process for obtaining evidence, and evaluating it objectively to determine the extent to which requirements are complied with.
	Note: Audits may include inspections.
Alternative means of compliance (AltMoC)	are those means that propose an alternative to an existing AMC or those that propose new means to establish compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts for which no associated AMC have been adopted by the Agency.
Assessment	in the context of management system performance monitoring, continuous improvement and oversight, refers to a planned and documented activity performed by competent personnel to evaluate and analyse the achieved level of performance and maturity in relation to the organisation's policy and objectives.
	Note: An assessment focuses on desirable outcomes and the overall performance, looking at the organisation as a whole. The main objective of the assessment is to identify the strengths and weaknesses to drive continual improvement.
	Remark: For 'risk assessment', please refer to the definition below.
Base maintenance	Ref. AMC1 145.A.10
Competency	is a combination of individual skills, practical and theoretical knowledge, attitudes, training, and experience.
Correction	is the action to eliminate a detected non-compliance.
Corrective action	is the action to eliminate or mitigate the root cause(s) and prevent the recurrence of an existing detected non-compliance, or other undesirable conditions or situations. Proper determination of the root cause(s) is crucial for defining effective corrective actions to prevent reoccurrence.
Error	is an action or inaction by a person that may lead to deviations from accepted procedures or regulations.
	Note: Errors are often associated with occasions where a planned sequence of mental or physical activities either fails to achieve its intended outcome, or is not appropriate with regard to the intended outcome, and when results cannot be attributed purely to chance.
Hazard	is a condition or an object with the potential to cause or contribute to an aircraft incident or accident.
Human factors	is anything that affects human performance, which means principles that apply to aeronautical activities, and which seek safe interface between the human and other system

Human	refers to human capabilities and limitations which have an impact on the safety and
performance	efficiency of aeronautical activities.
Inspection	in the context of compliance monitoring and oversight, refers to an independent documented conformity evaluation by observation and judgement accompanied, as appropriate, by measurement, testing or gauging, in order to verify compliance with applicable requirements.
	Note: Inspection may be part of an audit (e.g. product audit), but may also be conducted outside the normal audit plan; for example, to verify closure of a particular finding.
Just Culture	Ref. Regulation (EU) No 376/2014, Article 2.
Line maintenance	Ref. <u>AMC 145.A.10</u>
Near-miss	is an event in which an occurrence to be mandatorily reported according to Regulation (EU) No 376/2014 was narrowly averted or avoided.
	Example: A CAMO staff on rechecking his/her work at the end of a task realises that an AD, AWL, CMR task was not properly processed (for instance, in the AMP or continuing airworthiness record system) which would have led to a situation that the AD/AWL/CMR would not have been performed on time on the affected (fleet of) aircraft.
Organisational factor	is a condition that affects the effectiveness of safety risk controls, related to the culture, policies, processes, resources, and workplace of an organisation.
Oversight planning cycle	refers to the time frame within which all areas of the approval and all processes should be reviewed by the competent authority by means of audits and inspections.
Oversight programme	refers to the detailed oversight schedule that defines the number of audits and inspections, the scope and duration of each audit and inspection, including details of product audits and locations, as appropriate, to be performed by the competent authority, and the tentative time frame for performing each audit and inspection.
Post holder	means the person nominated in accordance with point <u>CAMO.A.305(b)(2)</u> .
Preventive action	is the action to eliminate the cause of a potential non-compliance, or other undesirable potential situation.
Risk assessment	is an evaluation based on engineering and operational judgement and/or analysis methods in order to establish whether the achieved or perceived risk is acceptable or tolerable.
Safety Culture	is an enduring set of values, norms, attitudes, and practices within an organisation concerned with minimising the exposure of the workforce and the general public to dangerous or hazardous conditions. In a positive safety culture, a shared concern for, commitment to, and accountability for safety is promoted.
Safety risk	refers to the predicted probability and severity of the consequences or outcomes of a hazard.
Safety training	refers to dedicated training to support safety management policies and processes, including human factors training.
	Note: The main purpose of the safety training programme is to ensure that personnel at all levels of the organisation maintain their competency to fulfil their roles safely. Safety training should, in particular, consider the safety knowledge derived from hazard identification and risk management processes, and support the fostering of a positive safety culture.



Annex Vc (Part-CAMO)

GENERAL

Note: Safety management training refers to specific training for the staff involved in safety management functions in accordance with point <a href="CAMO.A.305(a)(5">CAMO.A.200(a)(3)</a>)

**Working days** 

refer to days between and including Monday to Friday not including public holidays.



## SECTION A — ORGANISATION REQUIREMENTS

## CAMO.A.005 Scope

Regulation (FII) 2019/1383

This Section establishes the requirements to be met by an organisation to qualify for the issue or continuation of a certificate for the management of continuing airworthiness of an aircraft and of components for installation.

## **CAMO.A.105 Competent authority**

Regulation (EU) 2019/1383

For the purpose of this Annex, the competent authority shall be:

- (a) the authority designated by the Member State where that organisation's principal place of business is located, if the approval is not included in an air operator certificate;
- (b) the authority designated by the Member State of the operator, if the approval is included in an air operator certificate;
- (c) the Agency, if the organisation's principal place of business is located in a third country.

## CAMO.A.115 Application for an organisation certificate

Regulation (EU) 2019/1383

- (a) The application for a certificate or an amendment to an existing certificate in accordance with this Annex shall be made in a form and manner established by the competent authority, taking into account the applicable requirements of Annex I (Part-M), Annex Vb (Part-ML) and this Annex.
- (b) Applicants for an initial certificate pursuant to this Annex shall provide the competent authority with:
  - (1) the results of a pre-audit performed by the organisation against the applicable requirements provided for in Annex I (Part-M), Annex Vb (Part-ML) and this Annex;
  - (2) documentation demonstrating how they will comply with the requirements established in this Regulation.

Such documentation shall include, as provided for in point <u>CAMO.A.130</u>, a procedure describing how changes not requiring prior approval will be managed and notified to the competent authority.

## AMC1 CAMO.A.115 Application for an organisation certificate

ED Decision 2020/002/R

An application should be made on an EASA Form 2 (<u>Appendix I to AMC1 CAMO.A.115</u>) or an equivalent form that is acceptable to the competent authority.

EASA Form 2 is also valid for application for other types of organisations pursuant to Regulation (EU) No 1321/2014. Organisations that apply for several certificates may do so using a single EASA Form 2.

## AMC2 CAMO.A.115 Application for an organisation certificate

ED Decision 2020/002/R

#### **GENERAL**

- (a) Draft documents should be submitted at the earliest opportunity so that assessment of the application can begin. The initial certification or approval of changes cannot take place until the competent authority has received the completed documents.
- (b) This information, including the results of the pre-audit specified in point <u>CAMO.A.115(b)(1)</u>, will enable the competent authority to conduct its assessment in order to determine the volume of certification and oversight work that is necessary, and the locations where it will be carried out.
- (c) The intent of the internal pre-audit referred to in point <u>CAMO.A.115(b)(1)</u> is to ensure that the organisation has internally verified its compliance with the Regulation. This should allow the organisation to demonstrate to the competent authority the extent to which the applicable requirements are complied with, and to provide assurance that the organisation management system is established to a level that is sufficient to perform continuing airworthiness management activities.

## GM1 CAMO.A.115(b) Application for an organisation certificate

ED Decision 2020/002/R

#### PROCEDURE FOR CHANGES NOT REQUIRING PRIOR APPROVAL

The procedure for changes not requiring prior approval should include, as mentioned in point <a href="Mailto:CAMO.A.300(a)(11)(iv)">CAMO.A.300(a)(11)(iv)</a>, both the scope of those changes and how they will be managed and notified. For applicants for an initial certificate, the scope may be limited by the competent authority for the first period of operation. An extension of such a limited scope may be considered later; see <a href="GM1 CAMO.A.130">GM1 CAMO.A.130</a>.

## AMC1 CAMO.A.115(b)(2) Application for an organisation certificate

ED Decision 2020/002/R

#### **DOCUMENTATION FOR DEMONSTRATION OF COMPLIANCE**

- (a) Documentation to be provided to the competent authority in the frame of an application for an initial Part-CAMO certificate should include, as a minimum, the continuing airworthiness management exposition (CAME), containing in particular:
  - for CAT, commercial specialised operations and commercial ATO/DTO operations, the description of the aircraft technical log system;
  - the technical content of the contract between the CAMO and the organisation subcontracted to carry out continuing airworthiness management tasks, when such arrangement exists.
- (b) Upon request by the competent authority, the CAMO should be able to demonstrate that arrangements are in place for all base and scheduled line maintenance for an appropriate period of time.



## CAMO.A.120 Means of compliance

Regulation (EU) 2019/1383

- (a) Alternative means of compliance to the AMC adopted by the Agency may be used by an organisation to establish compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (b) When an organisation wishes to use an alternative means of compliance, it shall, prior to using it, provide the competent authority with a full description of the alternative means of compliance. The description shall include any revisions to manuals or procedures that may be relevant, as well as an assessment demonstrating compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts.

The organisation may use these alternative means of compliance subject to prior approval by the competent authority, and upon receipt of the notification as provided for in point <a href="CAMO.B.120">CAMO.B.120</a>.

## CAMO.A.125 Terms of approval and privileges of the organisation

Regulation (EU) 2020/270

- (a) The approval is indicated on the certificate, which is included in Appendix I, and is issued by the competent authority.
- (b) Notwithstanding point (a), for air carriers licensed in accordance with Regulation (EC) No 1008/2008, the approval shall be part of the air operator certificate issued by the competent authority for the aircraft operated.
- (c) The scope of work shall be specified in the continuing airworthiness management exposition (CAME) in accordance with point <u>CAMO.A.300</u>.
- (d) An organisation approved in accordance with this Annex may:
  - (1) manage the continuing airworthiness of aircraft, except those used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, as listed on the certificate;
  - (2) manage the continuing airworthiness of aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, when listed both on its certificate and on its air operator certificate;
  - (3) arrange to carry out limited continuing airworthiness tasks with any subcontracted organisation, working under its management system, as listed on the certificate;
  - (4) extend an airworthiness review certificate under the conditions of point M.A.901(f) of Annex I (Part-M) or point ML.A.901(c) of Annex Vb (Part-ML), as applicable.
  - (5) Approve the AMP, in accordance with point (b)(2) of point ML.A.302, for aircraft managed in accordance with Annex Vb (Part-ML).
- (e) An organisation approved in accordance with this Annex and having its principal place of business in one of the Member States, may additionally be approved to carry out airworthiness reviews in accordance with point <a href="M.A.901">M.A.901</a> of Annex I (Part-M) or point <a href="ML.A.903">ML.A.903</a> of Annex Vb (Part-ML) as applicable, and:
  - (1) issue the related airworthiness review certificate and extend it in due time under the conditions of point M.A.901(c)(2) and point M.A.901(e)(2) of Annex I (Part-M) or point ML.A.901(c) of Annex Vb (Part-ML), as applicable;

- (2) issue a recommendation for the airworthiness review to the competent authority of the Member State of registry, under the conditions of point (d) of point M.A.901 or point (b) of point M.A.904 of Annex I (Part-M).
- (f) An organisation holding the privileges referred to in point (e) may additionally be approved to issue a permit to fly in accordance with point (d) of point 21.A.711 of Annex I (Part-21) to Regulation (EU) No 748/2012 for the particular aircraft for which the organisation is approved to issue the airworthiness review certificate, when the organisation is attesting conformity with approved flight conditions, subject to an adequate procedure in the CAME referred to in point CAMO.A.300.

## AMC1 CAMO.A.125(d)(3) Terms of approval and privileges

ED Decision 2020/002/R

#### SUBCONTRACTING OF CONTINUING AIRWORTHINESS TASKS

- (a) The CAMO may subcontract certain continuing airworthiness management tasks to qualified organisations. The subcontracted organisation performs the continuing airworthiness management tasks as an integral part of the CAMO's management system, irrespective of any other approval held by the subcontracted organisation (including CAMO or Part-145 approval).
- (b) The CAMO remains accountable for the satisfactory completion of the continuing airworthiness management tasks irrespective of any contract that may be established.
- (c) In order to fulfil this responsibility, the CAMO should be satisfied that the actions taken by the subcontracted organisation meet the standards required by Part-CAMO. Therefore, the CAMO management of such activities should be accomplished:
  - (1) by active control through direct involvement; and/or
  - (2) by endorsing the recommendations made by the subcontracted organisation.
- (d) In order to retain ultimate responsibility, the CAMO should limit subcontracted tasks to the activities specified below:
  - (1) airworthiness directive analysis and planning;
  - (2) service bulletin analysis;
  - (3) planning of maintenance;
  - (4) reliability monitoring, engine health monitoring;
  - (5) maintenance programme development and amendments;
  - (6) any other activities, which do not limit the CAMO responsibilities, as agreed by the competent authority.
- (e) The CAMO's controls associated with subcontracted continuing airworthiness management tasks should be reflected in the associated contract and be in accordance with the CAMO policy and procedures defined in the CAME. When such tasks are subcontracted, the management system is considered to be extended to the subcontracted organisations.
- (f) With the exception of engines and auxiliary power units, contracts would normally be limited to one organisation per aircraft type for any combination of the activities described in Appendix II. Where contracts are made with more than one organisation, the CAMO should demonstrate that adequate coordination controls are in place and that the individuals' responsibilities are clearly defined in the related contracts.

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- (g) Contracts should not authorise the subcontracted organisation to subcontract to other organisations elements of the continuing airworthiness management tasks.
- (h)The competent authority should exercise oversight of the subcontracted activities through the CAMO approval. The contracts should be acceptable to the competent authority. The CAMO should only subcontract to organisations which are specified by the competent authority on EASA Form 14.
- (i) The subcontracted organisation should agree to notify the CAMO of any changes affecting the contract as soon as practical. The CAMO should then inform its competent authority. Failure to do so may invalidate the competent authority's acceptance of the contract.
- (j) Appendix II to AMC1 CAMO.A.125(d)(3) provides information on the subcontracting of continuing airworthiness management tasks.

## GM1 CAMO.A.125(e) Terms of approval and privileges

ED Decision 2020/002/R

- (a) An organisation may be approved for the privileges of point <a href="CAMO.A.125(d">CAMO.A.125(d)</a> only, without the privilege to carry out airworthiness reviews. In this case, the airworthiness review can be contracted to another appropriately approved organisation. It is not mandatory that this contracted organisation is linked to an AOC holder, and it is possible to contract an appropriately approved independent CAMO which is approved for the same aircraft type.
- (b) In order to be approved for the privileges of point <u>CAMO.A.125(e)</u> for a particular aircraft type, it is necessary to be approved for the privileges of point <u>CAMO.A.125(d)</u> for that aircraft type.
- (c) Nevertheless, this does not necessarily mean that the organisation needs to be currently managing an aircraft type in order to be able to perform airworthiness reviews on that aircraft type. The organisation may be performing only airworthiness reviews on an aircraft type without having any customer under contract for that type.
- (d) Furthermore, this situation should not necessarily lead to the removal of the aircraft type from the organisation approval. As a matter of fact, since in most cases the airworthiness review staff are not involved in continuing airworthiness management activities, it cannot be argued that these airworthiness review staff are going to lose their skills just because the organisation is not managing a particular aircraft type. The important issue in relation to maintaining a particular aircraft type in the organisation approval is whether the organisation continuously fulfils all the Part-CAMO requirements (facilities, documentation, qualified personnel, management system, etc.) required for initial approval.

## **GM1 CAMO.A.125(f) Terms of approval and privileges**

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The sentence 'for the particular aircraft for which the organisation is approved to issue the airworthiness review certificate' contained in point <a href="CAMO.A.125(f">CAMO.A.125(f)</a>) means that:

- for Part-M aircraft used by air carriers licensed in accordance with Regulation (EC)
  No 1008/2008, and for aircraft above 2 730 kg MTOM, the permit to fly can only be issued for
  aircraft which are in a controlled environment and are managed by that CAMO; and
- for Part-M aircraft of 2 730 kg MTOM and below not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, and for Part-ML aircraft, the permit to fly can be issued for any aircraft.

## CAMO.A.130 Changes to the organisation

Regulation (EU) 2019/1383

- (a) The following changes to the organisation shall require prior approval:
  - (1) changes that affect the scope of the certificate or the terms of approval of the organisation;
  - (2) changes to personnel nominated in accordance with points (a)(3) to (a)(5) and (b)(2) of point CAMO.A.305;
  - (3) changes to the reporting lines between the personnel nominated in accordance with points (a)(3) to (a)(5) and (b)(2) of point CAMO.A.305, and the accountable manager;
  - (4) the procedure as regards changes not requiring prior approval referred to in point (c).
- (b) For any changes requiring prior approval in accordance with Regulation (EU) 2018/1139 and its delegated and implementing acts, the organisation shall apply for and obtain an approval issued by the competent authority. The application shall be submitted before any such change takes place, in order to enable the competent authority to determine continued compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts and to amend, if necessary, the organisation certificate and related terms of approval attached to it.
  - The organisation shall provide the competent authority with any relevant documentation.
  - The change shall only be implemented upon receipt of formal approval by the competent authority in accordance with point <u>CAMO.B.330</u>.
  - The organisation shall operate under the conditions established by the competent authority during such changes, as applicable.
- (c) All changes not requiring prior approval shall be managed and notified to the competent authority as defined in the procedure referred to in point (b) of point <u>CAMO.A.115</u> and approved by the competent authority in accordance with point (h) of point <u>CAMO.B.310</u>.

## AMC1 CAMO.A.130 Changes to the organisation

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#### **APPLICATION TIME FRAMES**

- (a) The application for the amendment of an organisation certificate should be submitted at least 30 working days before the date of the intended changes.
- (b) In the case of a planned change of a nominated person, the organisation should inform the competent authority at least 20 working days before the date of the proposed change.
- (c) Unforeseen changes should be notified at the earliest opportunity, in order to enable the competent authority to determine whether there is continued compliance with the applicable requirements, and to amend, if necessary, the organisation certificate and related terms of approval.



## AMC2 CAMO.A.130 Changes to the organisation

ED Decision 2020/002/R

#### **MANAGEMENT OF CHANGES**

The organisation should manage the safety risks related to any changes to the organisation in accordance with <u>AMC1 CAMO.A.200(a)(3)</u> point (e). For changes requiring prior approval, it should conduct a risk assessment and provide it to the competent authority upon request.

## **GM1 CAMO.A.130 Changes to the organisation**

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#### **CHANGES REQUIRING OR NOT REQUIRING PRIOR APPROVAL**

The rule point <u>CAMO.A.130</u> is structured as follows:

- Point (a) introduces an obligation of prior approval (by the competent authority) for specific cases listed under (1) to (4).
- Point (b) address all instances (including (a)) where the Regulation explicitly requires an approval by the competent authority (e.g. CAME procedure for the completion of an airworthiness review under supervision, ref. <a href="CAMO.A.310(c)">CAMO.A.310(c)</a>). Changes relevant to these instances should be considered as changes requiring a prior approval (see list in <a href="GM1 CAMO.A.130(b)">GM1 CAMO.A.130(b)</a>), unless otherwise specified by the Regulation.
- Point (b) also indicates how all changes requiring prior approval are to be handled.
- Point (c) introduces the possibility to agree with the competent authority that certain changes to the organisation (other than those covered by (a) or (b)) can be implemented without prior approval depending on the compliance and safety performance of the organisation, and in particular, on its capability to apply change management principles.

## GM1 CAMO.A.130(a)(1) Changes to the organisation

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### CHANGES THAT AFFECT THE SCOPE OF THE CERTIFICATE OR THE TERMS OF APPROVAL

Typical examples of such changes are listed below (not exhaustive):

- (1) the name of the organisation;
- (2) the organisation's principal place of business;
- (3) additional aircraft type/series/group;
- (4) the accountable manager referred to in point CAMO.A.305(a);
- (5) additional subcontracted organisation.

## GM2 CAMO.A.130(a)(1) Changes to the organisation

ED Decision 2020/002/R

#### **CHANGE OF THE NAME OF THE ORGANISATION**

A change of the name requires the organisation to submit a new application as a matter of urgency.

If this is the only change to report, the new application can be accompanied by a copy of the documentation that was previously submitted to the competent authority under the previous name, as a means of demonstrating how the organisation complies with the applicable requirements.



## GM1 CAMO.A.130(b) Changes to the organisation

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#### CHANGES REQUIRING PRIOR APPROVAL (OTHER THAN THOSE COVERED BY CAMO.A.130(a))

Following are some examples of changes that require prior approval by the competent authority (other than covered by point <u>CAMO.A.130(a)</u>), as specified in the applicable implementing rules:

- (a) changes to the alternative means of compliance [CAMO.A.120(b)]
- (b) changes to the CAME procedure for the completion of an airworthiness review under supervision of the organisation's authorised airworthiness review staff (ARS) [CAMO.A.310(c)]
- (c) changes to the procedure to establish and control the competency of personnel [CAMO.A.305(g)]
- (d) changes to the system for reporting to the competent authority on the safety performance and regulatory compliance of the organisation (in the case of an extension beyond 36 months of the oversight planning cycle) [CAMO.B.305(d)]
- (e) changes to the procedure for the indirect approval of the maintenance programme of Part-M aircraft [M.A.302(c)]

## CAMO.A.135 Continued validity

Regulation (EU) 2019/1383

- (a) The organisation's certificate shall remain valid subject to compliance with all of the following conditions:
  - (1) the organisation remaining in compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts, taking into account the provisions related to the handling of findings as specified under point CAMO.B.350;
  - (2) the competent authority being granted access to the organisation as specified in point CAMO.A.140;
  - (3) the certificate not being surrendered or revoked.
- (b) For air carriers licensed in accordance with Regulation (EC) No 1008/2008, termination, suspension or revocation of the air operator certificate automatically invalidates the organisation certificate in relation to the aircraft registrations specified in the air operator certificate, unless otherwise explicitly stated by the competent authority.
- (c) Upon revocation or surrender, the certificate shall be returned to the competent authority without delay.

## **CAMO.A.140** Access

Regulation (EU) 2019/1383

For the purpose of determining compliance with the relevant requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts, the organisation shall grant access at any time to any facility, aircraft, document, records, data, procedures or any other material relevant to its activity subject to certification, whether it is contracted/subcontracted or not, to any person authorised by one of the following authorities:

(a) the competent authority defined in point <u>CAMO.A.105</u>;

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(b) the authority acting under the provisions of point (d) of point CAMO.B.300 or point (e) of point CAMO.B.300.

## CAMO.A.150 Findings

Regulation (EU) 2019/1383

- (a) After receipt of notification of findings according to point <u>CAMO.B.350</u>, the organisation shall:
  - (1) identify the root cause or causes of and contributing factors to the non-compliance;
  - (2) define a corrective action plan;
  - (3) demonstrate corrective action implementation to the satisfaction of the competent authority.
- (b) Actions referred to in points (a)(1), (a)(2) and (a)(3) shall be performed within the period agreed with that competent authority as defined in point CAMO.B.350.

## AMC1 CAMO.A.150 Findings

ED Decision 2020/002/R

#### **GENERAL**

The action plan defined by the organisation should address the effects of the non-compliance, as well as its root cause(s) and contributing factor(s).

Depending on the issues, the action plan should address correction/containment of the issue, corrective action and preventive action.

## **GM1 CAMO.A.150 Findings**

ED Decision 2020/002/R

#### **CAUSAL ANALYSIS**

- (a) It is important that the analysis does not primarily focus on establishing who or what caused the non-compliance, but on why it was caused. Establishing the root cause or causes of a non-compliance often requires an overarching view of the events and circumstances that led to it, to identify all the possible systemic and contributing factors (regulatory, human factors (HF), organisational factors, technical, etc.) in addition to the direct factors.
- (b) A narrow focus on single events or failures, or the use of a simple, linear model, such as a fault tree, to identify the chain of events that led to the non-compliance, may not properly reflect the complexity of the issue, and therefore there is a risk that important factors that must be addressed in order to prevent a reoccurrence will be ignored.
  - Such an inappropriate or partial causal analysis often leads to defining 'quick fixes' that only address the symptoms of the non-conformity. A peer review of the results of the causal analysis may increase its reliability and objectivity.
- (c) A system description of the organisation that considers the organisational structures, processes and their interfaces, procedures, staff, equipment, facilities and the environment in which the organisation operates, will support both effective causal (reactive) and hazard (proactive) analyses.



## CAMO.A.155 Immediate reaction to a safety problem

Regulation (EU) 2019/1383

The organisation shall implement:

- (a) any safety measures mandated by the competent authority in accordance with point <a href="CAMO.B.135">CAMO.B.135</a>;
- (b) any relevant mandatory safety information issued by the Agency.

## **CAMO.A.160 Occurrence reporting**

Regulation (EU) 2019/1383

- (a) As part of its management system the organisation shall implement an occurrence reporting system that meets the requirements defined in Regulation (EU) No 376/2014 and Implementing Regulation (EU) 2015/1018<sup>1</sup>.
- (b) Without prejudice to point (a), the organisation shall ensure that any incident, malfunction, technical defect, exceeding of technical limitations, occurrence that would highlight inaccurate, incomplete or ambiguous information contained in data established in accordance with Annex I (Part-21) to Regulation (EU) No 748/2012 or other irregular circumstance that has or may have endangered the safe operation of the aircraft and that has not resulted in an accident or serious incident are reported to the competent authority and to the organisation responsible for the design of the aircraft.
- (c) Without prejudice to Regulation (EU) No 376/2014 and Implementing Regulation (EU) 2015/1018, the reports referred to in points (a) and (b) shall be made in a form and manner established by the competent authority and shall contain all pertinent information about the condition known to the organisation.
- (d) Reports shall be made as soon as possible, but in any case within 72 hours of the organisation identifying the condition to which the report relates, unless exceptional circumstances prevent this.
- (e) Where relevant, the organisation shall produce a follow-up report to provide details of actions it intends to take to prevent similar occurrences in the future, as soon as these actions have been identified. This report shall be produced in a form and manner established by the competent authority.

## AMC1 CAMO.A.160 Occurrence reporting

ED Decision 2020/002/R

#### **GENERAL**

(a) Where the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and its delegated and implementing acts:

- (1) the organisation may establish an integrated occurrence reporting system covering all certificate(s) held; and
- (2) single reports for occurrences should only be provided if the following conditions are met:

Regulation (EU) 2015/1018 of 29 June 2015 laying down a list classifying occurrences in civil aviation to be mandatorily reported according to Regulation (EU) No 376/2014 of the European Parliament and of the Council (OJ L163, 30,06,2015, p. 1).

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- (i) the report includes all relevant information from the perspective of the different organisation certificates held;
- (ii) the report addresses all relevant specific mandatory data fields and clearly identifies all certificate holders for which the report is made;
- (iii) the competent authority for all certificates is the same and such single reporting was agreed with that competent authority.
- (b) The organisation should assign responsibility to one or more suitably qualified persons with clearly defined authority, for coordinating action on airworthiness occurrences and for initiating any necessary further investigation and follow-up activity.
- (c) If more than one person are assigned such responsibility, the organisation should identify a single person to act as the main focal point for ensuring a single reporting channel is established with the accountable manager. This should in particular apply to organisations holding one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and its delegated and implementing acts where the occurrence reporting system is fully integrated with that required under the additional certificate(s) held.

## **AMC2 CAMO.A.160 Occurrence reporting**

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The organisation should share relevant safety-related occurrence reports with the design approval holder of the aircraft in order to enable it to issue appropriate service instructions and recommendations to all owners or operators. Liaison with the design approval holder is recommended to establish whether published or proposed service information will resolve the problem or to obtain a solution to a particular problem.

## **GM1 CAMO.A.160 Occurrence reporting**

ED Decision 2020/002/R

#### **MANDATORY REPORTING - GENERAL**

- (a) For organisations having their principal place of business in a Member State, Regulation (EU) 2015/1018 lays down a list classifying occurrences in civil aviation to be mandatorily reported. This list should not be understood as being an exhaustive collection of all issues that may pose a significant risk to aviation safety and therefore reporting should not be limited to items listed in that Regulation.
- (b) AMC-20 'General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances' provides further details on occurrence reporting (AMC 20-8).

## GM1 CAMO.A.160(b) Occurrence reporting

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#### **DESIGN APPROVAL HOLDER**

Depending on the case, the 'organisation responsible for the design of the aircraft' will be the holder of a type-certificate, a restricted type-certificate, a supplemental type-certificate, a European Technical Standard Order (ETSO) authorisation, an approval for a repair or a change to the type design or any other relevant approval or authorisation for products, parts and appliances deemed to have been issued under Commission Regulation (EU) No 748/2012.



## **CAMO.A.200 Management system**

Regulation (EU) 2019/1383

- (a) The organisation shall establish, implement, and maintain a management system that includes:
  - (1) clearly defined lines of responsibility and accountability throughout the organisation, including a direct safety accountability of the accountable manager;
  - (2) a description of the overall philosophies and principles of the organisation with regard to safety, referred to as the safety policy;
  - (3) the identification of aviation safety hazards entailed by the activities of the organisation, their evaluation and the management of associated risks, including taking actions to mitigate the risks and verify their effectiveness;
  - (4) maintaining personnel trained and competent to perform their tasks;
  - (5) documentation of all management system key processes, including a process for making personnel aware of their responsibilities and the procedure for amending this documentation;
  - (6) a function to monitor compliance of the organisation with the relevant requirements. Compliance monitoring shall include a feedback system of findings to the accountable manager to ensure effective implementation of corrective actions as necessary;
  - (7) any additional requirements that are laid down in this Regulation.
- (b) The management system shall correspond to the size of the organisation and the nature and complexity of its activities, taking into account the hazards and associated risks inherent in these activities.
- (c) Where the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and its delegated and implementing acts, the management system may be integrated with that required under the additional certificate(s) held.
- (d) Notwithstanding point (c), for air carriers licensed in accordance with Regulation (EC) No 1008/2008, the management system provided for in this Annex shall be an integrated part of the operator's management system.

## GM1 CAMO.A.200 Management system

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#### **GENERAL**

Safety management seeks to proactively identify hazards and to mitigate the related safety risks before they result in aviation accidents and incidents. Safety management enables an organisation to manage its activities in a more systematic and focused manner. When an organisation has a clear understanding of its role and contribution to aviation safety, it can prioritise safety risks and more effectively manage its resources and obtain optimal results.

The principles of the requirements in points <u>CAMO.A.200</u>, <u>CAMO.A.202</u>, <u>CAMO.A.205</u> and the related AMC constitute the EU management system framework for aviation safety management. This framework addresses the core elements of the ICAO safety management system (SMS) framework defined in Appendix 2 to Annex 19, and it promotes an integrated approach to the management of an organisation. It facilitates the introduction of the additional safety management components, building upon the existing management system, rather than adding them as a separate framework.

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This approach is intended to encourage organisations to embed safety management and risk-based decision-making into all their activities, instead of superimposing another system onto their existing management system and governance structure. In addition, if the organisation holds multiple organisation certificates within the scope of Regulation (EU) 2018/1139, it may choose to implement a single management system to cover all of its activities. An integrated management system may not only be used to capture multiple certification requirements, but also to cover other business management systems such as security, occupational health and environmental management systems. Integration will remove any duplication and exploit synergies by managing safety risks across multiple activities. Organisations may determine the best means to structure their management systems to suit their business and organisational needs.

The core part of the management system framework (<u>CAMO.A.200</u>) focuses on what is essential for safety management, by mandating the organisation to:

- (a) clearly define accountabilities and responsibilities;
- (b) establish a safety policy and the related safety objectives;
- (c) implement safety reporting procedures in line with just culture principles;
- (d) ensure the identification of aviation safety hazards entailed by its activities, ensure their evaluation, and the management of associated risks, including:
  - (1) taking actions to mitigate the risks;
  - (2) verifying the effectiveness of the actions taken to mitigate the risks;
- (e) monitor compliance, while considering any additional requirements that are applicable to the organisation;
- (f) keep their personnel trained, competent, and informed about significant safety issues; and
- (g) document all the key management system processes.

Compared to the previous Part-M Subpart G quality system 'framework', the new elements that are introduced with Part-CAMO are, in particular, those addressed under points (b) to (d). Points (c) and (d)(1) address component 2 'Safety Risk Management' of the ICAO SMS framework. Points (d)(2) and (e) address component 3 'Safety Assurance' thereof.

Point <u>CAMO.A.200</u> defines the following as key safety management processes; these are further specified in the related AMC and GM:

- Hazard identification;
- Safety risk management;
- Internal investigation;
- Safety performance monitoring and measurement;
- Management of change;
- Continuous improvement;
- Immediate safety action and coordination with the aircraft operator's Emergency Response Plan (ERP).

It is important to recognise that safety management will be a continuous activity, as hazards, risks and the effectiveness of safety risk mitigations will change over time.



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These key safety management processes are supported by a compliance monitoring function as an integral part of the management system for safety. Most aviation safety regulations constitute generic safety risk controls established by the 'regulator'. Therefore, ensuring effective compliance with the regulations during daily operations and independent monitoring of compliance are fundamental to any management system for safety. The compliance monitoring function may, in addition, support the follow-up of safety risk mitigation actions. Moreover, where non-compliances are identified through internal audits, the causes will be thoroughly assessed and analysed. Such an analysis in return supports the risk management process by providing insights into causal and contributing factors, including HF, organisational factors and the environment in which the organisation operates. In this way, the outputs of compliance monitoring become some of the various inputs to the safety risk management functions. On the other hand, the safety risk management processes may be used to determine focus areas for compliance monitoring. In this way, internal audits will inform the organisation's management of the level of compliance within the organisation, whether safety risk mitigation actions have been implemented, and where corrective or preventive action is required. The combination of safety risk management and compliance monitoring should lead to an enhanced understanding of the end-to-end process and the process interfaces, exposing opportunities for increased efficiencies, which are not limited to safety aspects.

As aviation is a complex system with many organisations and individuals interacting together, the primary focus of the key safety management processes is on the organisational processes and procedures, but it also relies on the humans in the system. The organisation and the way in which it operates can have a significant impact on human performance. Therefore, safety management necessarily addresses how humans can contribute both positively and negatively to an organisation's safety outcomes, recognising that human behaviour is influenced by the organisational environment.

The effectiveness of safety management largely depends on the degree of commitment of the senior management to create a working environment that optimises human performance and encourages personnel to actively engage in and contribute to the organisation's management processes. Similarly, a positive safety culture relies on a high degree of trust and respect between the personnel and the management, and it must therefore be created and supported at the senior management level. If the management does not treat individuals who identify hazards and report adverse events in a consistently fair and just way, those individuals are unlikely to be willing to communicate safety issues or to work with the management to effectively address the safety risks. As with trust, a positive safety culture takes time and effort to establish, and it can be easily lost.

It is further recognised that the introduction of processes for hazard identification and risk assessment, mitigation and verification of the effectiveness of such mitigation actions will create immediate and direct costs, while related benefits are sometimes intangible and may take time to materialise. Over time, an effective management system will not only address the risks of major occurrences, but also identify and address production inefficiencies, improve communication, foster a better organisation culture, and lead to more effective control of contractors and suppliers. In addition, through an improved relationship with the authority, an effective management system may result in a reduced oversight burden.

Thus, by viewing safety management and the related organisational policies and key processes as items that are implemented not only to prevent incidents and accidents, but also to meet the organisation's strategic objectives, any investment in safety should be seen as an investment in productivity and organisational success.



## AMC1 CAMO.A.200(a)(1) Management system

ED Decision 2021/009/R

#### **ORGANISATION AND ACCOUNTABILITIES**

- (a) The management system should encompass safety by including a safety manager, and a safety review board in the organisational structure. The functions of the safety manager are those defined in <u>AMC1 CAMO.A.305(a)(4);(a)(5)</u>.
- (b) Safety review board
  - (1) The safety review board should be a high-level committee that considers matters of strategic safety in support of the accountable manager's safety accountability.
  - (2) The board should be chaired by the accountable manager and composed of the person or group of persons nominated under point <u>CAMO.A.305(a)</u> and (b).
  - (3) The safety review board should monitor:
    - (i) safety performance against the safety policy and objectives;
    - (ii) that any safety action is taken in a timely manner; and
    - (iii) the effectiveness of the organisation's management system processes.
  - (4) The safety review board may also be tasked with:
    - (i) reviewing the results of compliance monitoring;
    - (ii) monitoring the implementation of related corrective and preventive actions.
- (c) The safety review board should ensure that appropriate resources are allocated to achieve the established safety objectives.
- (d) The safety manager or another person designated by the safety manager may attend, as appropriate, safety review board meetings. He or she may communicate to the accountable manager all information, as necessary, to allow decision-making based on safety data.
- (e) Notwithstanding point (a), where justified by the size of the organisation and the nature and complexity of its activities and subject to a risk assessment and agreement by the competent authority, the organisation may not need to establish a formal safety review board. In this case, the tasks normally allocated to the safety review board should be allocated to the safety manager.

## GM1 CAMO.A.200(a)(1) Management system

ED Decision 2020/002/R

#### **SAFETY ACTION GROUP**

- (a) Depending on the size of the organisation and the nature and complexity of its activities, a safety action group may be established as a standing group or as an ad hoc group to assist, or act on behalf of the safety manager or the safety review board.
- (b) More than one safety action group may be established, depending on the scope of the task and the specific expertise required.
- (c) The safety action group usually reports to, and takes strategic direction from, the safety review board, and may be composed of managers, supervisors and personnel from operational areas.
- (d) The safety action group may be tasked with or assist in:

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- monitoring safety performance;
- (2) defining actions to control risks to an acceptable level;
- (3) assessing the impact of organisational changes on safety;
- (4) ensuring that safety actions are implemented within agreed timescales;
- (5) reviewing the effectiveness of previous safety actions and safety promotion.

## GM2 CAMO.A.200(a)(1) Management system

ED Decision 2020/002/R

#### MEANING OF THE TERMS 'ACCOUNTABILITY' AND 'RESPONSIBILITY'

In the English language, the notion of accountability is different from the notion of responsibility. Whereas 'accountability' refers to an obligation which cannot be delegated, 'responsibility' refers to an obligation that can be delegated.

## AMC1 CAMO.A.200(a)(2) Management system

ED Decision 2020/002/R

#### **SAFETY POLICY & OBJECTIVES**

- (a) The safety policy should:
  - (1) reflect organisational commitments regarding safety, and its proactive and systematic management, including the promotion of a positive safety culture;
  - (2) include internal reporting principles, and encourage personnel to report continuing airworthiness-related errors, incidents and hazards;
  - (3) recognise the need for all personnel to cooperate with the compliance monitoring and internal investigations referred to under point (c) of AMC1 CAMO.A.200(a)(3);
  - (4) be endorsed by the accountable manager;
  - (5) be communicated, with visible endorsement, throughout the organisation; and
  - (6) be periodically reviewed to ensure it remains relevant and appropriate for the organisation.
- (b) The safety policy should include a commitment to:
  - (1) comply with all applicable legislation, to meet all the applicable requirements, and adopt practices to improve safety standard;
  - (2) provide the necessary resources for the implementation of the safety policy.
  - (3) apply HF principles;
  - (4) enforce safety as a primary responsibility of all managers; and
  - (5) apply 'just culture' principles to internal safety reporting and the investigation of occurrences and, in particular, not to make available or use the information on occurrences:
    - (i) to attribute blame or liability to front line staff or other persons for actions, omissions or decisions taken by them that are commensurate with their experience and training; or

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- (ii) for any purpose other than the maintenance or improvement of aviation safety.
- (c) Senior management should continually promote the safety policy to all personnel, demonstrate its commitment to it, and provide necessary human and financial resources for its implementation.
- (d) Taking due account of its safety policy, the organisation should define safety objectives. The safety objectives should:
  - (1) form the basis for safety performance monitoring and measurement;
  - (2) reflect the organisation's commitment to maintain or continuously improve the overall effectiveness of the management system;
  - (3) be communicated throughout the organisation; and
  - (4) be periodically reviewed to ensure they remain relevant and appropriate for the organisation.

## GM1 CAMO.A.200(a)(2) Management system

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#### **SAFETY POLICY**

- (a) The safety policy is the means whereby the organisation states its intention to maintain and, where practicable, improve safety levels in all its activities and to minimise its contribution to the risk of an aircraft accident or serious incident as far as is reasonably practicable. It reflects the management's commitment to safety, and should reflect the organisation's philosophy of safety management, as well as be the foundation on which the organisation's management system is built. It serves as a reminder of 'how we do business here'. The creation of a positive safety culture begins with the issuance of a clear, unequivocal policy.
- (b) The commitment to apply 'just culture' principles forms the basis for the organisation's internal rules describing how 'just culture' principles are guaranteed and implemented.
- (c) For organisations having their principal place of business in a Member State, Regulation (EU) No 376/2014 defines the 'just culture' principles to be applied (refer in particular to Article 16(11) of that Regulation).

## AMC1 CAMO.A.200(a)(3) Management system

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#### **SAFETY MANAGEMENT KEY PROCESSES**

- (a) Hazard identification processes
  - (1) A reporting scheme for both reactive event and proactive hazards should be the formal means of collecting, recording, analysing, acting on, and generating feedback about hazards and the associated risks that may affect safety.
  - (2) The identification should include:
    - (i) hazards that may be generated from HF issues that affect human performance; and
    - (ii) hazards that may stem from the organisational set-up or the existence of complex operational and maintenance arrangements (such as when multiple organisations are contracted, or when multiple levels of contracting/subcontracting are included).

#### (b) Risk management processes

- (1) A formal safety risk management process should be developed and maintained that ensures that there is:
  - (i) analysis (e.g. in terms of the probability and severity of the consequences of hazards and occurrences);
  - (ii) assessment (in terms of tolerability); and
  - (iii) control (in terms of mitigation) of risks to an acceptable level.
- (2) The levels of management who have the authority to make decisions regarding the tolerability of safety risks, in accordance with (b)(1)(ii), should be specified.

#### (c) Internal investigation

- (1) In line with its just culture policy, the organisation should define how to investigate incidents such as errors or near misses, in order to understand not only what happened, but also how it happened, to prevent or reduce the probability and/or consequence of future recurrences (refer to AMC1 CAMO.A.202).
- (2) The scope of internal investigations should extend beyond the scope of the occurrences required to be reported to the competent authority in accordance with point <u>CAMO.A.160</u>, to include the reports referred to in <u>CAMO.A.202(b)</u>.
- (d) Safety performance monitoring and measurement
  - (1) Safety performance monitoring and measurement should be the process by which the safety performance of the organisation is verified in comparison with the safety policy and the safety objectives.
  - (2) This process may include, as appropriate to the size, nature and complexity of the organisation:
    - (i) safety reporting, addressing also the status of compliance with the applicable requirements;
    - (ii) safety reviews, including trends reviews, which would be conducted during the introduction of new products and their components, new equipment/technologies, the implementation of new or changed procedures, or in situations of organisational changes that may have an impact on safety;
    - (iii) safety audits focusing on the integrity of the organisation's management system, and on periodically assessing the status of safety risk controls; and
    - (iv) safety surveys, examining particular elements or procedures in a specific area, such as problem areas identified, or bottlenecks in daily continuing airworthiness management activities, perceptions and opinions of management personnel, and areas of dissent or confusion.

## (e) Management of change

The organisation should manage the safety risks related to a change. The management of change should be a documented process to identify external and internal changes that may have an adverse effect on the safety of its continuing airworthiness management activities. It should make use of the organisation's existing hazard identification, risk assessment and mitigation processes.

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#### (f) Continuous improvement

The organisation should continuously seek to improve its safety performance and the effectiveness of its management system. Continuous improvement may be achieved through:

- (1) audits carried out by external organisations;
- (2) assessments, including assessments of the effectiveness of the safety culture and management system, in particular to assess the effectiveness of the safety risk management processes;
- (3) staff surveys, including cultural surveys, that can provide useful feedback on how engaged personnel are with the management system;
- (4) monitoring the recurrence of incidents and occurrences;
- (5) evaluation of safety performance indicators and review of all the available safety performance information; and
- (6) identification of lessons learnt.
- (g) Immediate safety action and coordination with the operator's Emergency Response Plan (ERP)
  - (1) A procedure should be implemented to enable the organisation to act promptly when it identifies safety concerns with the potential to have immediate effect on flight safety, including clear instructions on who to contact at the owner/operator, and how to contact them, including outside normal business hours. These provisions are without prejudice to the occurrence reporting required by point <a href="CAMO.A.160">CAMO.A.160</a>.
  - (2) If applicable, a procedure should be implemented to enable the organisation to react promptly if the ERP is triggered by the operator and it requires the support of the CAMO.

## GM1 CAMO.A.200(a)(3) Management system

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#### SAFETY RISK MANAGEMENT — INTERFACES BETWEEN ORGANISATIONS

- (a) Safety risk management processes should specifically address the planned implementation of, or participation of the organisation in, any complex operational and maintenance arrangements (such as when multiple organisations are contracted, or when multiple levels of contracting/subcontracting are included).
- (b) Hazard identification and risk assessment start with an identification of all the parties involved in the arrangement, including independent experts and non-approved organisations. This identification process extends to cover the overall control structure, and assesses in particular the following elements across all subcontract levels and all parties within such arrangements:
  - (1) coordination and interfaces between the different parties;
  - (2) applicable procedures;
  - (3) communication between all the parties involved, including reporting and feedback channels;
  - (4) task allocation, responsibilities and authorities; and
  - (5) the qualifications and competency of key personnel with reference to point <u>CAMO.A.305</u>.
- (c) Safety risk management should focus on the following aspects:
  - (1) clear assignment of accountability and allocation of responsibilities;

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- (2) that only one party is responsible for a specific aspect of the arrangement, with no overlapping or conflicting responsibilities, in order to eliminate coordination errors;
- (3) the existence of clear reporting lines, both for occurrence reporting and progress reporting;
- (4) the possibility for staff to directly notify the organisation of any hazard that suggests an obviously unacceptable safety risk as a result of the potential consequences of this hazard.
- (d) The safety risk management processes should ensure that there is regular communication between all the parties involved to discuss work progress, risk mitigation actions, and changes to the arrangement, as well as any other significant issues.

## GM2 CAMO.A.200(a)(3) Management system

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#### MANAGEMENT OF CHANGE

- (a) Unless they are properly managed, changes in organisational structure, facilities, the scope of work, personnel, documentation, policies and procedures, etc. can result in the inadvertent introduction of new hazards, and expose the organisation to new or increased risk. Effective organisations seek to improve their processes, with conscious recognition that changes can expose the organisation to potentially latent hazards and risks if they are not properly and effectively managed.
- (b) Regardless of the magnitude of change, large or small, its safety implications should always be proactively considered. This is primarily the responsibility of the team that proposes and/or implements the change. However, a change can only be successfully implemented if all the personnel affected by the change are engaged, are involved and participate in the process. The magnitude of a change, its safety criticality, and its potential impact on human performance should be assessed in any change management process.
- (c) The process for the management of change typically provides principles and a structured framework for managing all aspects of the change. Disciplined application of the management of change can maximise the effectiveness of the change, engage the staff, and minimise the risks that are inherent in a change.
- (d) The introduction of a change is the trigger for the organisation to perform their hazard identification and risk management process.

Some examples of change include, but are not limited to:

- (1) changes to the organisational structure;
- (2) the inclusion of a new aircraft type in the terms of approval;
- (3) the addition of aircraft of the same or a similar type;
- (4) significant changes in personnel (affecting key personnel and/or large numbers of personnel, high turn-over);
- (5) new or amended regulations;
- (6) changes in the security arrangements;
- (7) changes in the economic situation of an organisation (e.g. commercial or financial pressure);

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- (8) new schedule(s), location(s), equipment, and/or operational procedures; and
- (9) the addition of new subcontractors.
- (e) A change may have the potential to introduce new, or to exacerbate pre-existing, HF issues. For example, changes in computer systems, equipment, technology, personnel changes, including changes in management personnel, procedures, work organisation, or work processes are likely to affect performance.
- (f) The purpose of integrating HF into the management of change is to minimise potential risks by specifically considering the impact of the change on the people within a system.
- (g) Special consideration, including any HF issues, should be given to the 'transition period'. In addition, the activities utilised to manage these issues should be integrated into the change management plan.
- (h) Effective management of change should be supported by the following:
  - (1) Implementation of a process for formal hazard identification/risk assessment for major operational changes, major organisational changes, changes in key personnel, and changes that may affect the way continuing airworthiness management is carried out.
  - (2) Identification of changes that are likely to occur in business which would have a noticeable impact on:
    - (i) resources material and human;
    - (ii) management direction policies, processes, procedures, training; and
    - (iii) management control.
  - (3) Safety cases/risk assessments that are aviation-safety focused.
  - (4) Involvement of key stakeholders in the change management process as appropriate.
    - (i) During the management of change process, previous risk assessments, and existing hazards are reviewed for possible effect.

## AMC1 CAMO.A.200(a)(4) Management system

ED Decision 2020/002/R

#### **COMMUNICATION ON SAFETY**

- (a) The organisation should establish communication about safety matters that:
  - (1) ensures that all personnel are aware of the safety management activities, as appropriate, for their safety responsibilities;
  - (2) conveys safety-critical information, especially related to assessed risks and analysed hazards;
  - (3) explains why particular actions are taken; and
  - (4) explains why safety procedures are introduced or changed.
- (b) Regular meetings with personnel at which information, actions, and procedures are discussed, may be used to communicate safety matters.



## GM1 CAMO.A.200(a)(4) Management system

ED Decision 2020/002/R

#### **SAFETY PROMOTION**

- (a) Safety training, combined with safety communication and information sharing, forms part of safety promotion.
- (b) Safety promotion activities support:
  - the organisation's policies, encouraging a positive safety culture, creating an environment that is favourable to the achievement of the organisation's safety objectives;
  - (2) organisational learning; and
  - (3) the implementation of an effective safety reporting scheme and the development of a just culture.
- (c) Depending on the particular safety issue, safety promotion may also constitute or complement risk mitigation actions.
- (d) Qualification and training aspects are further specified in the AMC and GM to CAMO.A.305.

## GM1 CAMO.A.200(a)(5) Management system

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#### MANAGEMENT SYSTEM DOCUMENTATION

- (a) The organisation may document its safety policy, safety objectives and all its key management system processes in a separate manual (e.g. Safety Management Manual or Management System Manual) or in its CAME (cf. <u>AMC1 CAMO.A.300</u>, Part 2 'Management system procedures'). Organisations that hold multiple organisation certificates within the scope of Regulation (EU) 2018/1139 may prefer to use a separate manual in order to avoid duplication. That manual or the CAME, depending on the case, should be the key instrument for communicating the approach to the management system for the whole of the organisation.
- (b) The organisation may also choose to document some of the information that is required to be documented in separate documents (e.g. policy documents, procedures). In that case, it should ensure that the manual or the CAME contains adequate references to any document that is kept separately. Any such documents are to be considered as integral parts of the organisation's management system documentation.

## AMC1 CAMO.A.200(a)(6) Management system

ED Decision 2020/002/R

#### **COMPLIANCE MONITORING — GENERAL**

- (a) The primary objectives of compliance monitoring are to provide an independent monitoring function on how the organisation ensures compliance with the applicable requirements, policies and procedures, and to request action where non-compliances are identified.
- (b) The independence of the compliance monitoring should be established by always ensuring that audits and inspections are carried out by personnel who are not responsible for the functions, procedures or products that are audited or inspected.

## AMC2 CAMO.A.200(a)(6) Management System

ED Decision 2020/002/R

#### **COMPLIANCE MONITORING — INDEPENDENT AUDIT**

- (a) An essential element of compliance monitoring is the independent audit.
- (b) The independent audit should be an objective process of routine sample checks of all aspects of the CAMO ability to carry out continuing airworthiness management to the standards required by this Regulation. It should include some product sampling as this is the end result of the process.
- (c) The independent audit should provide an objective overview of the complete set of continuing airworthiness management-related activities.
- (d) The organisation should establish an audit plan to show when and how often the activities as required by Part-M, Part-ML and Part-CAMO will be audited.
- (e) The audit plan should ensure that all aspects of Part-CAMO compliance are verified every year, including all the subcontracted activities, and the auditing may be carried out as a complete single exercise or subdivided over the annual period. The independent audit should not require each procedure to be verified against each product line when it can be shown that the particular procedure is common to more than one product line and the procedure has been verified every year without resultant findings. Where findings have been identified, the particular procedure should be verified against other product lines until the findings have been closed, after which the independent audit procedure may revert to a yearly interval for the particular procedure.
- (f) Provided that there are no safety-related findings, the audit planning cycle specified in this AMC may be increased by up to 100 %, subject to a risk assessment and/or mitigation actions, and agreement by the competent authority.
- (g) Where the organisation has more than one location approved, the audit plan should ensure that each location is audited every year or at an interval determined through a risk assessment agreed by the competent authority and not exceeding the applicable audit planning cycle.
- (h) A report should be issued each time an audit is carried out describing what was checked and the resulting non-compliance findings against applicable requirements and procedures.

## AMC3 CAMO.A.200(a)(6) Management system

ED Decision 2020/002/R

#### COMPLIANCE MONITORING — CONTRACTING OF THE INDEPENDENT AUDIT

- (a) If external personnel are used to perform independent audits:
  - (1) any such audits are performed under the responsibility of the compliance monitoring manager; and
  - (2) the organisation remains responsible for ensuring that the external personnel have the relevant knowledge, background, and experience that are appropriate to the activities being audited, including knowledge and experience in compliance monitoring.
- (b) The organisation retains the ultimate responsibility for the effectiveness of the compliance monitoring function, in particular for the effective implementation and follow-up of all corrective actions.

## AMC4 CAMO.A.200(a)(6) Management system

ED Decision 2020/002/R

#### **COMPLIANCE MONITORING — FEEDBACK SYSTEM**

- (a) An essential element of the compliance monitoring is the feedback system.
- (b) The feedback system should not be contracted to external persons or organisations.
- (c) When a non-compliance is found, the compliance monitoring function should ensure that the root cause(s) and contributing factor(s) are identified (see <u>GM1 CAMO.A.150</u>), and that corrective actions are defined. The feedback part of the compliance monitoring function should define who is required to address any non-compliance in each particular case, and the procedure to be followed if the corrective action is not completed within the defined time frame. The principal functions of the feedback system are to ensure that all findings resulting from the independent audits of the organisation are properly investigated and corrected in a timely manner, and to enable the accountable manager to be kept informed of any safety issues and the extent of compliance with Part-CAMO.
- (d) The independent audit reports referred to in AMC2 CAMO.A.200(a)(6) should be sent to the relevant department(s) for corrective action, giving target closure dates. These target dates should be discussed with the relevant department(s) before the compliance monitoring function confirms the dates in the report. The relevant department(s) are required to implement the corrective action and inform the compliance monitoring function of the status of the implementation of the action.
- (e) Unless the review of the results from compliance monitoring is the responsibility of the safety review board (ref. AMC1 CAMO.A.200(a)(1) point (b)(4)), the accountable manager should hold regular meetings with staff to check the progress of any corrective actions. These meetings may be delegated to the compliance monitoring manager on a day-to-day basis, provided that the accountable manager:
  - (1) meets the senior staff involved at least twice per year to review the overall performance of the compliance monitoring function; and
  - (2) receives at least a half-yearly summary report on non-compliance findings.
- (f) All records pertaining to the independent audit and the feedback system should be retained for the period specified in point <u>CAMO.A.220(b)</u> or for such periods as to support changes to the audit planning cycle in accordance with <u>AMC2 CAMO.A.200(a)(6)</u>, whichever is the longer.

## GM1 CAMO.A.200(a)(6) Management system

ED Decision 2020/002/R

#### **COMPLIANCE MONITORING FUNCTION**

The compliance monitoring function is one of the elements that is required to be in compliance with the applicable requirements. This means that the compliance monitoring function itself should be subject to independent monitoring of compliance in accordance with point <a href="CAMO.A.200(a)(6)">CAMO.A.200(a)(6)</a>.

# GM1 CAMO.A.200(a)(6) and CAMO.B.300 Management system and Oversight principles

ED Decision 2021/009/R

# THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) FOR PERFORMING REMOTE AUDITS

Similar provisions to those in GM1 145.A.65(c)(1) and 145.B.30 apply.

## CAMO.A.202 Internal safety reporting scheme

Regulation (EU) 2019/1383

- (a) As part of its management system, the organisation shall establish an internal safety reporting scheme to enable the collection and evaluation of such occurrences to be reported under point <a href="CAMO.A.160">CAMO.A.160</a>.
- (b) The scheme shall also enable the collection and evaluation of those errors, near misses, and hazards reported internally that do not fall under point (a).
- (c) Through this scheme, the organisation shall:
  - (1) identify the causes of and contributing factors to any errors, near misses, and hazards reported and address them as part of safety risk management in accordance with point (a)(3) of point <u>CAMO.A.200</u>;
  - (2) ensure evaluation of all known, relevant information relating to errors, the inability to follow procedures, near misses, and hazards, and a method to circulate the information as necessary.
- (d) The organisation shall provide access to its internal safety reporting scheme to any subcontracted organisation.
- (e) The organisation shall cooperate on safety investigations with any other organisation having a significant contribution to the safety of its own continuing airworthiness management activities.

## AMC1 CAMO.A.202 Internal safety reporting scheme

ED Decision 2020/002/R

#### **GENERAL**

- (a) Each internal safety reporting scheme should be confidential and enable and encourage free and frank reporting of any potentially safety-related occurrence, including incidents such as errors or near misses, safety issues and hazards identified. This will be facilitated by the establishment of a just culture.
- (b) The internal safety reporting scheme should contain the following elements:
  - (1) clearly identified aims and objectives with demonstrable corporate commitment;
  - (2) a just culture policy as part of the safety policy, and related just culture implementation procedures;
  - (3) a process to:
    - (i) identify those reports which require further investigation; and

- (ii) when so identified, investigate all the causal and contributing factors, including any technical, organisational, managerial, or HF issues, and any other contributing factors related to the occurrence, incident, error or near miss that was identified;
- (iii) if adapted to the size and complexity of the organisation, analyse the collective data showing the trends and frequencies of the contributing factor;
- (4) appropriate corrective actions based on the findings of investigations;
- (5) initial and recurrent training for staff involved in internal investigations;
- (6) where relevant, the organisation should cooperate with the owner or operator on occurrence investigations by exchanging relevant information to improve aviation safety.
- (c) The internal safety reporting scheme should:
  - (1) ensure confidentiality to the reporter;
  - (2) be closed-loop, to ensure that actions are taken internally to address any safety issues and hazards; and
  - (3) feed into the recurrent training as defined in <u>AMC2 CAMO.A.305(g)</u> whilst maintaining appropriate confidentiality.
- (d) Feedback should be given to staff both on an individual and a more general basis to ensure their continued support of the safety reporting scheme.

## **GM1 CAMO.A.202 Internal safety reporting scheme**

ED Decision 2020/002/R

#### **GENERAL**

- (a) The overall purpose of the internal safety reporting scheme is to collect information reported by the organisation personnel and use this reported information to improve the level of compliance and safety performance of the organisation. The purpose is not to attribute blame.
- (b) The objectives of the scheme are to:
  - (1) enable an assessment to be made of the safety implications of each relevant incident (errors, near miss), safety issue and hazard reported, including previous similar issues, so that any necessary action can be initiated; and
  - (2) ensure that knowledge of relevant incidents, safety issues and hazards is shared so that other persons and organisations may learn from them.
- (c) The scheme is an essential part of the overall monitoring function and should be complementary to the normal day-to-day procedures and 'control' systems; it is not intended to duplicate or supersede any of them. The scheme is a tool to identify those instances in which routine procedures have failed or may fail.
- (d) All reports should be retained, as the significance of such reports may only become obvious at a later date.
- (e) The collection and analysis of timely, appropriate and accurate data will allow the organisation to react to information that it receives, and apply the necessary action.



## CAMO.A.205 Contracting and subcontracting

Regulation (EU) 2019/1383

- (a) The organisation shall ensure that when contracting maintenance or when subcontracting any part of its continuing airworthiness management activities:
  - (1) these activities conform to the applicable requirements; and
  - (2) any aviation safety hazards associated with such contracting or subcontracting are considered as part of the organisation's management system.
- (b) When the organisation subcontracts any part of its continuing airworthiness management activities to another organisation, the subcontracted organisation shall work under the approval of the organisation. The organisation shall ensure that the competent authority is given access to the subcontracted organisation, to determine continued compliance with the applicable requirements.

## GM1 CAMO.A.205 Contracting and subcontracting

ED Decision 2020/002/R

# RESPONSIBILITY WHEN CONTRACTING MAINTENANCE OR SUBCONTRACTING CONTINUING AIRWORTHINESS MANAGEMENT TASKS

- (a) Regardless of the approval status of the subcontracted organisations, the CAMO is responsible for ensuring that all subcontracted activities are subject to hazard identification and risk management, as required by point <a href="CAMO.A.200(a)(3)">CAMO.A.200(a)(3)</a>, and to compliance monitoring, as required by point <a href="CAMO.A.200(a)(6)">CAMO.A.200(a)(6)</a>.
- (b) A CAMO is responsible for identifying hazards that may stem from the existence of complex operational and maintenance arrangements (such as when multiple organisations are contracted, or when multiple levels of contracting/subcontracting are included) with due regard to the organisations' interfaces (see <a href="GM1 CAMO.A.200(a)(3)">GM1 CAMO.A.200(a)(3)</a>). In addition, the compliance monitoring function should at least check that the approval of the contracted maintenance organisation(s) effectively covers the contracted activities, and that it is still valid.
- (c) A CAMO is responsible for ensuring that interfaces and communication channels are established with the contracted maintenance organisation for occurrence reporting. This does not replace the obligation of the contracted organisation to report to the competent authority in accordance with Regulation (EU) No 1321/2014.
  - For subcontracted activities, interfaces and communication channels are also needed for the purpose of the internal safety reporting scheme (<u>CAMO.A.202</u>).

### CAMO.A.215 Facilities

Regulation (EU) 2019/1383

The organisation shall provide suitable office accommodation at appropriate locations for the personnel specified in point <u>CAMO.A.305</u>.

### **AMC1 CAMO.A.215 Facilities**

ED Decision 2020/002/R

#### **GENERAL**

Office accommodation should be such that the incumbents, whether they are continuing airworthiness management, planning, technical records or management system staff, can carry out their designated tasks in a manner that contributes to good standards. The competent authority may agree to these tasks being conducted from one office subject to being satisfied that there is sufficient space and that each task can be carried out without undue disturbance. Office accommodation should also include an adequate technical library and room for document consultation.

## CAMO.A.220 Record-keeping

Regulation (EU) 2019/1383

- (a) Continuing airworthiness management records
  - (1) The organisation shall ensure that records required by points <u>M.A.305</u>, <u>ML.A.305</u> and, if applicable point <u>M.A.306</u>, are retained.
  - (2) The organisation shall record all details of work carried out.
  - (3) If the organisation has the privilege referred to in point (e) of point <u>CAMO.A.125</u>, it shall retain a copy of each airworthiness review certificate and recommendation issued or, as applicable, extended, together with all supporting documents. In addition, the organisation shall retain a copy of any airworthiness review certificate that it has extended under the privilege referred to in point (d)(4) of point CAMO.A.125.
  - (4) If the organisation has the privilege referred to in point (f) of point CAMO.A.125, it shall retain a copy of each permit to fly issued in accordance with the provisions of point 21.A.729 of Annex I (Part-21) to Regulation (EU) No 748/2012.
  - (5) The organisation shall retain a copy of all records referred to in points (a)(2) to (a)(4) until 3 years after the responsibility for the aircraft in accordance with points M.A.201 or ML.A.201 has been permanently transferred to another person or organisation.
  - (6) Where the organisation terminates its operation, all retained records shall be transferred to the owner of the aircraft.
- (b) Management system, contracting and subcontracting records
  - (1) The organisation shall ensure that the following records are retained:
    - (i) records of management system key processes as defined in point <u>CAMO.A.200</u>;
    - (ii) contracts, both for contracting and subcontracting, as defined in point CAMO.A.205;
  - (2) Management system records, as well as any contracts pursuant to point CAMO.A.205, shall be kept for a minimum period of 5 years.
- (c) Personnel records
  - (1) The organisation shall ensure that the following records are retained:
    - (i) records of qualification and experience of personnel involved in continuing airworthiness management, compliance monitoring and safety management;

Annex Vc (Part-CAMO)

SECTION A — ORGANISATION

REQUIREMENTS

- (ii) records of qualification and experience of all airworthiness review staff, as well as staff issuing recommendations and permits to fly.
- (2) The records of all airworthiness review staff, staff issuing recommendations and staff issuing permits to fly shall include details of any appropriate qualification held together with a summary of the relevant continuing airworthiness management experience and training and a copy of the authorisation.
- (3) Personnel records shall be kept as long as the person works for the organisation, and shall be retained until 3 years after the person has left the organisation.
- (d) The organisation shall establish a system of record-keeping that allows adequate storage and reliable traceability of all activities developed.
- (e) The format of the records shall be specified in the organisation's procedures.
- (f) Records shall be stored in a manner that ensures protection from damage, alteration and theft.

## AMC1 CAMO.A.220 Record-keeping

ED Decision 2020/002/R

#### **GENERAL**

- (a) The record-keeping system should ensure that all records are accessible within a reasonable time whenever they are needed. These records should be organised in a manner that ensures their traceability and retrievability throughout the required retention period.
- (b) Records should be kept in paper form, or in electronic format, or a combination of the two. Records that are stored on microfilm or in optical disc formats are also acceptable. The records should remain legible throughout the required retention period. The retention period starts when the record is created or was last amended.
- (c) Paper systems should use robust materials which can withstand normal handling and filing. Computer record systems should have at least one backup system, which should be updated within 24 hours of any new entry. Computer record systems should include safeguards to prevent unauthorised personnel from altering the data.
- (d) All computer hardware that is used to ensure the backup of data should be stored in a different location from the one that contains the working data, and in an environment that ensures that the data remains in good condition. When hardware or software changes take place, special care should be taken to ensure that all the necessary data continues to be accessible through at least the full period specified in the relevant provision. In the absence of any such indications, all records should be kept for a minimum period of 3 years.

## AMC2 CAMO.A.220 Record-keeping

ED Decision 2020/002/R

#### **CONTINUING AIRWORTHINESS MANAGEMENT RECORDS**

- (a) The CAMO should ensure that it always receives a complete certificate of release to service from the approved maintenance organisation, independent certifying staff (M.A.801(b)(1) and ML.A.801(b)(2)) and/or from the Pilot-owner such that the required records can be retained. The system to keep the continuing airworthiness records should be described in the CAME.
- (b) When a CAMO arranges for the relevant maintenance organisation to retain copies of the continuing airworthiness records on its behalf, it will nevertheless continue to be responsible



for the records under point CAMO.A.220 relating to the preservation of records. If it ceases to be the CAMO of the aircraft, it also remains responsible for transferring the records to any other person or organisation managing continuing airworthiness of the aircraft.

## GM1 CAMO.A.220 Record-keeping

ED Decision 2020/002/R

#### **RECORDS**

Microfilming or optical storage of records may be carried out at any time. The records should be as legible as the original record, and remain so for the required retention period.

## AMC1 CAMO.A.220(c)(1)(ii) Record-keeping

ED Decision 2020/002/R

#### **RECORDS OF AIRWORTHINESS REVIEW STAFF**

The following minimum information, as applicable, should be kept on record in respect of each airworthiness review staff:

- Name;
- Date of birth;
- Basic education;
- Experience:
- Aeronautical degree and/or Part-66 qualification and/or nationally-recognised maintenance personnel qualification;
- Initial training received;
- Type of training received;
- Recurrent training received;
- Experience in continuing airworthiness and within the organisation;
- Responsibilities of current role in the organisation;
- Copy of the authorisation.

## CAMO.A.300 Continuing airworthiness management exposition (CAME)

- The organisation shall provide the competent authority with a CAME and, where applicable, any referenced associated manuals and procedures, containing all of the following information:
  - (1) a statement signed by the accountable manager confirming that the organisation will at all times work in accordance with this Annex, Annex I (Part-M) and Annex Vb (Part-ML), as applicable, and with the approved CAME. When the accountable manager is not the chief executive officer of the organisation, then such chief executive officer shall countersign the statement;
  - (2) the organisation's safety policy as defined in point (a)(2) of point CAMO.A.200;

- (3) the organisation's scope of work relevant to the terms of approval;
- (4) a general description of the manpower resources and of the system in place to plan the availability of staff as required by point (d) of point <u>CAMO.A.305</u>;
- (5) the title(s) and name(s) of person(s) referred to in points (a)(3) to (a)(5), (b)(2) and (f) of point CAMO.A.305;
- (6) the duties, accountabilities, responsibilities and authorities of the persons nominated under points (a)(3) to (a)(5), (b)(2), (e) and (f) of point <u>CAMO.A.305</u>;
- (7) an organisation chart showing the associated chains of accountability and responsibility between all the person(s) referred to in points (a)(3) to (a)(5), (b)(2), (e) and (f) of point CAMO.A.305, and related to point (a)(1) of point CAMO.A.200;
- (8) a list of staff authorised to issue airworthiness review certificates or recommendations referred to in point (e) of point <u>CAMO.A.305</u>, specifying, where applicable, the staff authorised to issue permits to fly in accordance with point (c) of point <u>CAMO.A.125</u>;
- (9) a general description and location of the facilities;
- (10) the description of the internal safety reporting scheme as required by point CAMO.A.202;
- (11) the procedures specifying how the organisation ensures compliance with this Annex, Annex I (Part-M) and Annex Vb (Part-ML), as applicable, including in particular:
  - (i) the documentation of management system key processes as required by point CAMO.A.200;
  - (ii) procedures defining how the organisation controls any contracted and subcontracted activities as required by point <u>CAMO.A.205</u> and point (c) of point <u>CAMO.A.315</u>);
  - (iii) continuing airworthiness management, airworthiness review and permit to fly procedures, as applicable;
  - (iv) the procedure defining the scope of changes not requiring prior approval and describing how such changes will be managed and notified, as required by point (b) of point CAMO.A.115 and point (c) of point CAMO.A.130;
  - (v) the CAME amendment procedures.
- (12) the list of approved aircraft maintenance programmes for those aircraft for which a continuing airworthiness management contract exists in accordance with point M.A.201 or ML.A.201;
- (13) the list of maintenance contracts in accordance with point (c) of point CAMO.A.315;
- (14) the list of currently approved alternative means of compliance.
- (b) The initial issue of the CAME shall be approved by the competent authority. It shall be amended as necessary to remain an up-to-date description of the organisation.
- (c) Amendments to the CAME shall be managed as defined in the procedures referred to in points (a)(11)(iv) and (a)(11)(v). Any amendments not included in the scope of the procedure referred to in point (a)(11)(iv), as well as amendments related to the changes listed in point CAMO.A.130(a), shall be approved by the competent authority.

# AMC1 CAMO.A.300 Continuing airworthiness management exposition (CAME)

ED Decision 2020/002/R

This AMC provides an outline of the layout of an acceptable CAME. Where an organisation uses a different format, for example, to allow the exposition to serve for more than one approval within the scope of Regulation (EU) 2018/1139, then the exposition should contain a cross-reference Annex using this list as an index with an explanation as to where the subject matter can be found in the exposition.

The information required by <u>CAMO.A.300</u> should be provided, directly or by reference, in the CAME.

Part 0	General organisation, safety policy and objectives
0.1	Safety policy, objectives and accountable manager statement
0.2	General information and scope of work
0.3	Management personnel
0.4	Management organisation chart
0.5	Procedure for changes requiring prior approval
0.6	Procedure for changes not requiring prior approval
0.7	Procedure for alternative means of compliance (AltMoC)
Part 1	Continuing airworthiness management procedures
1.1a	Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system
1.1b	MEL application
1.2	Aircraft maintenance programme (AMP) $-$ development amendment and approval
1.3	Continuing airworthiness records: responsibilities, retention and access
1.4	Accomplishment and control of airworthiness directives
1.5	Analysis of the effectiveness of the maintenance programme(s)
1.6	Non-mandatory modification and inspections
1.7	Repairs and modifications
1.8	Defect reports
1.9	Engineering activity
1.10	Reliability programmes
1.11	Pre-flight inspections
1.12	Aircraft weighing
1.13	Maintenance check flight procedures
Part 2	Management system procedures
2.1	Hazard identification and safety risk management schemes
2.2	Internal safety reporting and investigations
2.3	Safety action planning
2.4	Safety performance monitoring

2.5	Change management
2.6	Safety training and promotion
2.7	Immediate safety action and coordination with operator's Emergency Response Plan (ERP)
2.8	Compliance monitoring
2.8.1	Audit plan and audit procedure
2.8.2	Monitoring of continuing airworthiness management activities
2.8.3	Monitoring of the effectiveness of the maintenance programme(s)
2.8.4	Monitoring that all maintenance is carried out by an appropriate maintenance organisation
2.8.5	Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor
2.8.6	Compliance monitoring personnel
2.9	Control of personnel competency
2.10	Management system record-keeping
2.11	Occurrence reporting
Part 3	Contracted maintenance — management of maintenance
3.1	Maintenance contractor selection procedure
3.2	Product audit of aircraft
Part 4	Airworthiness review procedures
4.1	Airworthiness review staff
4.2	Documented review of aircraft records
4.3	Physical survey
4.4	Additional procedures for recommendations to competent authorities for the import of aircraft
4.5	ARC recommendations to competent authorities
4.6	Issue of ARC
4.7	Airworthiness review records, responsibilities, retention and access
4.8	
	ARC extension
Part 4B	ARC extension  Permit to fly procedures
Part 4B	Permit to fly procedures
<b>Part 4B</b> 4B.1	Permit to fly procedures  Conformity with approved flight conditions
<b>Part 4B</b> 4B.1 4B.2	Permit to fly procedures  Conformity with approved flight conditions  Issue of the permit to fly under the CAMO privilege
Part 4B 4B.1 4B.2 4B.3	Permit to fly procedures  Conformity with approved flight conditions  Issue of the permit to fly under the CAMO privilege  Permit to fly authorised signatories
Part 4B 4B.1 4B.2 4B.3 4B.4	Permit to fly procedures  Conformity with approved flight conditions  Issue of the permit to fly under the CAMO privilege  Permit to fly authorised signatories  Interface with the local authority for the flight
Part 4B 4B.1 4B.2 4B.3 4B.4 4B.5	Permit to fly procedures  Conformity with approved flight conditions  Issue of the permit to fly under the CAMO privilege  Permit to fly authorised signatories  Interface with the local authority for the flight  Permit to fly records, responsibilities, retention and access
Part 4B 4B.1 4B.2 4B.3 4B.4 4B.5 Part 5	Permit to fly procedures  Conformity with approved flight conditions  Issue of the permit to fly under the CAMO privilege  Permit to fly authorised signatories  Interface with the local authority for the flight  Permit to fly records, responsibilities, retention and access  Supporting documents

5.3	List of subcontractors as per point <u>CAMO.A.125(d)(3)</u>
5.4	List of contracted maintenance organisations and list of maintenance contracts as per point CAMO.A.300(a)(13)
5.5	Copy of contracts for subcontracted work (Appendix II to AMC1 CAMO.A.125(d)(3))
5.6	List of approved maintenance programme as per point <a href="CAMO.A.300(a)(12)">CAMO.A.300(a)(12)</a>
5.7	List of currently approved alternative means of compliance as per point <a href="CAMO.A.300(a)(13)">CAMO.A.300(a)(13)</a>

# AMC2 CAMO.A.300 Continuing airworthiness management exposition (CAME)

ED Decision 2020/002/R

- (a) Personnel should be familiar with those parts of the continuing airworthiness management exposition that are relevant to their tasks.
- (b) The CAMO should designate the person responsible for monitoring and amending the CAME, including associated procedure's manuals, in accordance with point <a href="CAMO.A.300(c">CAMO.A.300(c)</a>.
- (c) The CAMO may use electronic data processing (EDP) for the publication of the CAME. Attention should be paid to the compatibility of the EDP systems with the necessary dissemination, both internally and externally, of the CAME.

# GM1 CAMO.A.300 Continuing airworthiness management exposition (CAME)

ED Decision 2020/002/R

The purpose of the CAME is to:

- specify the scope of work and shows how the organisation intends to comply with this Annex;
   and
- provides all the necessary information and procedures for the personnel of the organisation to perform their duties.

Complying with its contents will ensure the organisation remains in compliance with Part-CAMO and, as applicable, Part-M and/or Part-ML.

# AMC1 CAMO.A.300(a)(1) Continuing airworthiness management exposition (CAME)

ED Decision 2020/002/R

#### **ACCOUNTABLE MANAGER STATEMENT**

- 1. Part 0 'General organisation, safety policy and objectives' of the CAME should include a statement, signed by the accountable manager (and countersigned by the chief executive officer, if different), confirming that the CAME and any associated manuals will be complied with at all times.
- 2. The accountable manager's exposition statement as specified in point <u>CAMO.A.300(a)(1)</u> should embrace the intent of the following paragraph, and in fact, this statement may be used without amendment. Any amendment to the statement should not alter its intent:



Annex Vc (Part-CAMO)

SECTION A — ORGANISATION

REQUIREMENTS

'This exposition and any associated referenced manuals define the organisation and procedures upon which the competent authority's\* CAMO approval is based.

These procedures are endorsed by the undersigned and must be complied with, as applicable, in order to ensure that all continuing airworthiness activities, including maintenance of the aircraft managed, are carried out on time to an approved standard.

These procedures do not override the necessity of complying with any new or amended regulation published from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the approval of the organisation is based on the continuous compliance of the organisation with Part-CAMO, Part-M and Part-ML, as applicable, and with the organisation's procedures described in this exposition. The competent authority\* is entitled to limit, suspend, or revoke the approval certificate if the organisation fails to fulfil the obligations imposed by Part-CAMO, Part-M and Part-ML, as applicable, or any conditions according to which the approval was issued.

In the case of air carriers licensed in accordance with Regulation (EC) No 1008/2008, suspension or revocation of the CAMO certificate will invalidate the AOC.

Signed
Dated
Accountable manager and (quote position)
Chief Executive Officer
For and on behalf of (quote organisation's name) '

\*Where 'competent authority' is stated, please insert the actual name of the competent authority delivering the CAMO approval certificate or the air operator certificate.

3. Whenever the accountable manager is changed, it is important to ensure that the new accountable manager signs the paragraph 2 statement at the earliest opportunity.

## **CAMO.A.305** Personnel requirements

Regulation (EU) 2019/1383

- (a) The organisation shall appoint an accountable manager, who has corporate authority for ensuring that all continuing airworthiness management activities can be financed and carried out in accordance with Regulation (EU) 2018/1139 and delegated and implementing acts adopted on the basis thereof. The accountable manager shall:
  - (1) ensure that all necessary resources are available to manage continuing airworthiness in accordance with this Annex, Annex I (Part-M) and Annex Vb (Part-ML), as applicable, to support the organisation approval certificate;
  - (2) establish and promote the safety policy specified in point <u>CAMO.A.200</u>;
  - (3) nominate a person or group of persons with the responsibility of ensuring that the organisation always complies with the applicable continuing airworthiness management, airworthiness review and permit to fly requirements of this Annex, Annex I (Part-M) and Annex Vb (Part-ML);
  - (4) nominate a person or group of persons with the responsibility for managing the compliance monitoring function as part of the management system;

Annex Vc (Part-CAMO)

SECTION A — ORGANISATION

REQUIREMENTS

- (5) nominate a person or group of persons with the responsibility for managing the development, administration, and maintenance of effective safety management processes as part of the management system;
- (6) ensure that the person or group of persons nominated in accordance with points (a)(3) to (a)(5) and (b)(2) of point <u>CAMO.A.305</u> have direct access to keep him/her properly informed on compliance and safety matters;
- (7) demonstrate a basic understanding of this Regulation.
- (b) For organisations also approved as air carriers licensed in accordance with Regulation (EC) No 1008/2008, the accountable manager shall in addition:
  - (1) be the person appointed as accountable manager for the air carrier as required by point (a) of point ORO.GEN.210 of Annex III (Part-ORO) to Regulation (EU) No 965/2012;
  - (2) nominate a person responsible for the management and supervision of continuing airworthiness, who shall not be employed by an organisation approved in accordance with Annex II (Part-145) under contract to the operator, unless specifically agreed by the competent authority.
- (c) The person or persons nominated in accordance with points (a)(3) to (a)(5) and (b)(2) of point CAMO.A.305 shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft continuing airworthiness management and demonstrate a working knowledge of this Regulation. Such person(s) shall be ultimately responsible to the accountable manager.
- (d) The organisation shall have a system in place to plan the availability of staff to ensure that the organisation has sufficient appropriately qualified staff to plan, perform, supervise, inspect and monitor the organisation's activities in accordance with the terms of approval.
- (e) To be approved to carry out airworthiness reviews or recommendations in accordance with point (e) of point <u>CAMO.A.125</u> and, if applicable, to issue permits to fly in accordance with point (f) of point CAMO.A.125, the organisation shall have airworthiness review staff qualified and authorised in accordance with point <u>CAMO.A.310</u>.
- (f) For organisations extending airworthiness review certificates in accordance with point (d)(4) of point CAMO.A.125, the organisation shall nominate persons authorised to do so.
- (g) The organisation shall establish and control the competency of personnel involved in compliance monitoring, safety management, continuing airworthiness management, airworthiness reviews or recommendations, and, if applicable, issuing permits to fly, in accordance with a procedure and to a standard agreed by the competent authority. In addition to the necessary expertise related to the job function, competency must include an understanding of safety management and human factors principles appropriate to the person's function and responsibilities in the organisation.

## AMC1 CAMO.A.305(a) Personnel requirements

ED Decision 2020/002/R

#### **ACCOUNTABLE MANAGER**

Accountable manager is normally intended to mean the chief executive officer of the CAMO, who by virtue of his or her position, has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation, and is not necessarily required to be knowledgeable on technical matters, as the CAME

Annex Vc (Part-CAMO)

SECTION A — ORGANISATION

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defines the continuing airworthiness standards. When the accountable manager is not the chief executive officer, the organisation should demonstrate to the competent authority that the accountable manager has direct access to the chief executive officer and has the necessary funding allocation for the continuing airworthiness management activities sought.

## AMC1 CAMO.A.305(a)(3) Personnel requirements

ED Decision 2020/002/R

#### MANAGEMENT STRUCTURE FOR CONTINUING AIRWORTHINESS MANAGEMENT

The person or group of persons nominated under point <u>CAMO.A.305(a)(3)</u> with the responsibility for ensuring compliance should represent the management structure of the organisation, and be responsible for the daily operation of the organisation, for all continuing airworthiness management functions.

Dependent on the size of the operation and the organisational set-up, the continuing airworthiness management functions may be divided under individual managers or combined in any number of ways.

## GM1 CAMO.A.305(a)(3) Personnel requirements

ED Decision 2020/002/R

#### RESPONSIBILITY FOR ENSURING COMPLIANCE

The person(s) nominated in accordance with <u>CAMO.A.305(a)(3)</u> are responsible, in the day-to-day continuing airworthiness management activities, for ensuring that the organisation personnel work in accordance with the applicable procedures and regulatory requirements.

These nominated persons should demonstrate a complete understanding of the applicable regulatory requirements, and ensure that the organisation's processes and standards accurately reflect the applicable requirements. It is their role to ensure that compliance is proactively managed, and that any early warning signs of non-compliance are documented and acted upon.

## AMC1 CAMO.A.305(a)(4);(a)(5) Personnel requirements

ED Decision 2020/002/R

#### SAFETY MANAGEMENT AND COMPLIANCE MONITORING FUNCTION

(a) Safety management

If more than one person is designated for the development, administration and maintenance of effective safety management processes, the accountable manager should identify the person who acts as the unique focal point, i.e. the 'safety manager'.

The functions of the safety manager should be to:

- (i) facilitate hazard identification, risk assessment and management;
- (ii) monitor the implementation of actions taken to mitigate risks, as listed in the safety action plan, unless action follow-up is addressed by the compliance monitoring function;
- (iii) provide periodic reports on safety performance to the safety review board (the functions of the safety review board are those defined in <a href="MMC1 CAMO.A.200(a)(1)">AMC1 CAMO.A.200(a)(1)</a>);
- (iv) ensure the maintenance of safety management documentation;
- (v) ensure that there is safety training available, and that it meets acceptable standards;



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- (vi) provide advice on safety matters; and
- (vii) ensure the initiation and follow-up of internal occurrence investigations.
- (b) Compliance monitoring function

If more than one person is designated for the compliance monitoring function, the accountable manager should identify the person who acts as the unique focal point, i.e. the 'compliance monitoring manager'.

- (1) The role of the compliance monitoring manager should be to ensure that:
  - (i) the activities of the organisation are monitored for compliance with the applicable requirements and any additional requirements as established by the organisation, and that these activities are carried out properly under the supervision of the nominated persons referred to in points <a href="CAMO.A.305(a)(3)">CAMO.A.305(a)(3)</a> to (a)(5).
  - (ii) any contracted maintenance is monitored for compliance with the contract or work order;
  - (iii) an audit plan is properly implemented, maintained, and continually reviewed and improved; and
  - (iv) corrections and corrective actions are requested as necessary.
- (2) The compliance monitoring manager should:
  - (i) not be one of the persons referred to in point <a href="CAMO.A.305(a)(3)">CAMO.A.305(a)(3)</a>;
  - (ii) be able to demonstrate relevant knowledge, background and appropriate experience related to the activities of the organisation, including knowledge and experience in compliance monitoring; and
  - (iii) have access to all parts of the organisation, and as necessary, any subcontracted organisation.
- (c) If the functions related to compliance monitoring or safety management are combined with other duties, the organisation should ensure this does not result in any conflicts of interest. In particular, the compliance monitoring function should be independent from the continuing airworthiness management functions.
- (d) If the same person is designated to manage both the compliance monitoring function and safety management-related processes and tasks, the accountable manager, with regard to his or her direct accountability for safety, should ensure that sufficient resources are allocated to both functions, taking into account the size of the organisation, and the nature and complexity of its activities.
- (e) Subject to a risk assessment and/or mitigation actions, and agreement by the competent authority, with due regard to the size of the organisation and the nature and complexity of its activities, the compliance monitoring manager role and/or safety manager role may be exercised by the accountable manager, provided that he or she has demonstrated the related competency as defined in point (b)(2)(ii).

## GM1 CAMO.A.305(a)(5) Personnel requirements

ED Decision 2020/002/R

#### **SAFETY MANAGER**

- (a) Depending on the size of the organisation and the nature and complexity of its activities, the safety manager may be assisted by additional safety personnel in performing all the safety management tasks as defined in <a href="MMC1 CAMO.A.200(a)(1)">AMC1 CAMO.A.200(a)(1)</a>.
- (b) Regardless of the organisational set-up, it is important that the safety manager remains the unique focal point for the development, administration, and maintenance of the organisation's safety management processes.

## AMC1 CAMO.A.305(b)(2) Personnel requirements

ED Decision 2020/002/R

#### **POST HOLDER**

- (a) When the licensed air carrier intends to nominate a CAMO post holder who is also employed by a Part-145 organisation, it should justify why such nomination is being made and support it through a risk assessment and/or mitigation actions.
- (b) This paragraph only applies to contracted maintenance and therefore does not affect situations where the organisation approved under Part-145 and the air carrier licensed in accordance with Regulation (EC) No 1008/2008 are the same organisation.

## AMC1 CAMO.A.305(c) Personnel requirements

ED Decision 2020/002/R

#### KNOWLEDGE, BACKGROUND AND EXPERIENCE OF NOMINATED PERSON(S)

Persons or group of persons nominated in accordance with points <a href="CAMO.A.305(a)">CAMO.A.305(a)</a> and <a href="CAMO.A.305(b)">CAMO.A.305(a)</a> and <a href="CAMO.A.305(b)">CAMO.A.305(a)</a> and <a href="CAMO.A.305(b)">CAMO.A.305(b)</a> should have:

- (a) practical experience and expertise in the application of aviation safety standards and safe operating practices;
- (b) a comprehensive knowledge of:
  - (i) relevant parts of operational requirements and procedures;
  - (ii) the AOC holder's operations specifications when applicable;
  - (iii) the need for, and content of, the relevant parts of the AOC holder's operations manual when applicable.
- (c) knowledge of:
  - (i) HF principles;
  - (ii) safety management systems based on the EU management system requirements (including compliance monitoring) and ICAO Annex 19.
- (d) 5 years of relevant work experience, of which at least 2 years should be from the aeronautical industry in an appropriate position;
- (e) a relevant engineering degree or an aircraft maintenance technician qualification with additional education that is acceptable to the competent authority. 'Relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic,

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avionic or other studies that are relevant to the maintenance and/or continuing airworthiness of aircraft/aircraft components;

The above recommendation may be replaced by 5 years of experience in addition to those already recommended by paragraph (d) above. These 5 years should cover an appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks;

- (f) thorough knowledge of the organisation's CAME;
- (g) knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation and could be provided by a Part-147 organisation, by the manufacturer, or by any other organisation accepted by the competent authority.
  - 'Relevant sample' means that these courses should cover typical aircraft and aircraft systems that are within the scope of work.

For all balloons and any other aircraft of 2 730 kg MTOM or less, the formalised training courses may be replaced by a demonstration of the required knowledge by providing documented evidence, or by an assessment performed by the competent authority. This assessment should be recorded.

- (h) knowledge of maintenance methods;
- (i) knowledge of the applicable regulations.

## AMC1 CAMO.A.305(d) Personnel requirements

ED Decision 2020/002/R

#### SUFFICIENT NUMBER OF PERSONNEL

- (a) The actual number of persons to be employed and their necessary qualifications is dependent upon the tasks to be performed and thus dependent on the size, nature and complexity of the organisation (general aviation aircraft, corporate aircraft, number of aircraft and the aircraft types, complexity of the aircraft and their age and for commercial air transport, route network, line or charter, ETOPS) and the amount and complexity of maintenance contracting. Consequently, the number of persons needed, and their qualifications may differ greatly from one organisation to another and a simple formula covering the whole range of possibilities is not feasible.
- (b) To implement a system to plan the availability of staff and to enable the competent authority to accept the number of persons and their qualifications, the organisation should make an analysis of the tasks to be performed, the way in which it intends to divide and/or combine these tasks, indicate how it intends to assign responsibilities and establish the number of man/hours and the qualifications needed to perform the tasks. This analysis should be kept up to date and reviewed in case of significant changes to the organisation.
- (c) In addition, as part of its management system in accordance with point <u>CAMO.A.200</u>, the organisation should have a procedure to assess and mitigate risks:
  - (1) when actual staff availability is less than the planned staffing level for any particular work shift or period;
  - (2) in case of a temporary increase of the proportion of contracted staff for the purpose of meeting specific operational needs.

## GM1 CAMO.A.305(f) Personnel requirements

ED Decision 2020/002/R

#### PERSONS AUTHORISED TO EXTEND AIRWORTHINESS REVIEW CERTIFICATES

The approval by the competent authority of the exposition, containing, as specified in point <u>CAMO.A.300(a)(5)</u>, the list of point <u>CAMO.A.305(f)</u> personnel authorised to extend airworthiness review certificates, constitutes their formal acceptance by the competent authority and also their formal authorisation by the organisation.

Airworthiness review staff are automatically recognised as persons with authority to extend an airworthiness review certificate in accordance with points <a href="CAMO.A.125(e)(1)">CAMO.A.125(e)(1)</a>, <a href="M.A.901(f">M.A.901(f)</a> and <a href="ML.A.901(c">ML.A.901(c)</a>.

## AMC1 CAMO.A.305(g) Personnel requirements

ED Decision 2021/009/R

#### **COMPETENCY ASSESSMENT OBJECTIVES**

The procedure referred to in point <u>CAMO.A.305(g)</u> should require amongst others that technical support personnel such as, planners, engineers, and technical record staff, supervisors, post-holders, airworthiness review staff, whether employed or contracted, are assessed for competency before unsupervised work commences and competency is controlled on a continuous basis.

Competency should be assessed by the evaluation of:

- on-the-job performance and/or testing of knowledge by appropriately qualified personnel;
- records for basic, organisational, and/or product type and differences training; and
- experience records.

Validation of the above could include a confirmation check with the organisation(s) that issued such document(s). For that purpose, experience/training may be recorded in a document such as a log book.

As a result of this assessment, an individual's qualification should determine:

- which level of ongoing supervision would be required and whether unsupervised work could be permitted;
- whether there is a need for additional training.

A record should be kept of each individual's qualifications and competency assessment (refer also to point <u>CAMO.A.220(c)</u>). This should include copies of all documents that attest to their qualifications, such as an authorisation held, as applicable.

For a proper competency assessment of its personnel, the organisation should consider the following:

- (a) In accordance with the job function, adequate initial and recurrent training should be provided and recorded to ensure continued competency so that it is maintained throughout the duration of the employment/contract.
- (b) All staff should be able to demonstrate knowledge of, and compliance with, the CAMO procedures, as applicable to their duties.
- (c) All staff should be able to demonstrate an understanding of safety management principles including HF, related to their job function and be trained as per <u>AMC3 CAMO.A.305(g)</u>.

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- (d) To assist in the assessment of competency and to establish the training needs analysis, job descriptions are recommended for each job function in the organisation. Job descriptions should contain sufficient criteria to enable the required competency assessment.
- (e) Criteria should allow the assessment to establish that, among other aspects (titles might be different in each organisation):
  - (1) Managers are able to properly manage processes, resources and priorities described in their assigned duties, accountabilities and responsibilities in accordance with the safety policy and objectives and in compliance with the applicable requirements and procedures.
  - (2) Maintenance programme engineers are able to interpret source data (norms, data issued by the holder of a design approval or by the competent authority, etc.) and use them to develop the aircraft maintenance programme.
  - (3) Engineering staff are able to interpret source data (norms, data issued by the holder of a design approval or by the competent authority, etc.) and use them as needed (e.g. to make work cards).
  - (4) Planners are able to organise maintenance activities in an effective and timely manner.
  - (5) Compliance monitoring staff are able to monitor compliance with this Regulation and to identify non-compliances in an effective and timely manner so that the organisation may remain in compliance with this Regulation.
  - (6) Staff who have been designated safety management responsibilities are familiar with the relevant processes in terms of hazard identification, risk management, and the monitoring of safety performance.
  - (7) All staff are familiar with the safety policy and the procedures and tools that can be used for internal safety reporting.
- (f) The competency assessment should be based upon the procedure specified in AMC2 CAMO.A.305(g).

## AMC2 CAMO.A.305(g) Personnel requirements

ED Decision 2020/002/R

#### **COMPETENCY ASSESSMENT PROCEDURE**

- (a) The organisation should develop a procedure that describes the process for conducting competency assessment of personnel. The procedure should specify:
  - (1) the persons who are responsible for this process;
  - (2) when the assessment should take place;
  - (3) how to give credit from previous assessments;
  - (4) how to validate qualification records;
  - (5) the means and methods to be used for the initial assessment;
  - (6) the means and methods to be used for the continuous control of competency, including to gather feedback on the performance of personnel;
  - (7) the aspects of competencies to be observed during the assessment in relation to each job function;

- (8) the actions to be taken if the assessment is not satisfactory; and
- (9) how to record assessment results.
- (b) Competency may be assessed by having the person work under the supervision of another qualified person for a sufficient time to arrive at a conclusion. Sufficient time could be as little as a few weeks if the person is fully exposed to relevant work. The person need not be assessed against the complete spectrum of their intended duties. If the person has been recruited from another approved CAMO, it is reasonable to accept a written confirmation from the previous organisation.
- (c) All prospective continuing airworthiness management staff should be assessed for their competency related to their intended duties.

## AMC3 CAMO.A.305(g) Personnel requirements

ED Decision 2020/002/R

#### **SAFETY TRAINING (INCLUDING HUMAN FACTORS)**

(a) With respect to the understanding of the application of safety management principles (including HF), all organisation personnel should be assessed for the need to receive initial safety training.

Personnel involved in the delivery of the basic continuing airworthiness management services of the organisation should receive both initial and recurrent safety training, appropriate for their responsibilities.

This should include at least the following staff members:

- nominated persons, line managers;
- persons involved in any compliance monitoring and/or safety management related processes and tasks, including application of HF principles, internal investigations and safety training;
- airworthiness review staff;
- technical support personnel such as, planners, engineers, and technical record staff;
- personnel involved in developing and amending/reviewing the AMP, in assessing its effectiveness and/or working on reliability programme; and
- contract staff in the above categories.

The generic term 'line managers' refers to departmental head or person responsible for operational departments or functional units directly involved in the delivery of the basic continuing airworthiness management services of the organisation.

(b) Initial safety training should cover all the topics of the training syllabus specified in GM2 CAMO.A.305(g) either as a dedicated course or else integrated within other training. The syllabus may be adjusted to reflect the particular nature of the organisation. The syllabus may also be adjusted to suit the particular nature of work for each function within the organisation.

Initial safety training compliant with the organisation's training standards should be provided to personnel identified in accordance with point (a) of this AMC within 6 months of joining the organisation, but temporary staff may need to be trained shortly after joining the organisation to cope with the duration of employment. Personnel being recruited from another organisation, and temporary staff should be assessed for the need to receive any additional safety training.

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- (c) The purpose of recurrent safety training is primarily to ensure that staff remain current in terms of SMS principles and HF, and also to collect feedback on safety and HF issues. Consideration should be given to involving compliance monitoring staff and key safety management personnel in this training to provide a consistent presence and facilitate feedback. There should be a procedure to ensure that feedback is formally reported by the trainers through the internal safety reporting scheme to initiate action where necessary.
  - Recurrent safety training should be delivered either as a dedicated course or else integrated within other training. It should be of an appropriate duration in each 2-year period, in relation to the relevant compliance monitoring audit findings and other internal/external sources of information available to the organisation on safety and HF issues.
- (d) Safety training may be conducted by the organisation itself, independent trainers, or any training organisations acceptable to the competent authority.

## AMC4 CAMO.A.305(g) Personnel requirements

ED Decision 2020/002/R

#### **OTHER TRAININGS**

- (a) The organisation should assess the need for particular training; for example, with regard to the competency standards established in AMC 20-22 'Electrical Wiring Interconnection System' (EWIS), the AMC 20-20 'Continuing Structural Integrity Programme' or 'Critical Design Configuration Control' (CDCCL).
- (b) Guidance on fuel tank safety training is provided in Appendix III to AMC4 CAMO.A.305(g).
- (c) Those responsible for managing the compliance monitoring function should receive training on this task. Such training should cover the requirements of compliance monitoring, manuals and procedures related to the task, audit techniques, reporting, and recording.
- (d) Personnel involved in developing and amending/reviewing the AMP, in assessing its effectiveness and/or working on reliability programme, should have knowledge of or be trained on statistical analysis and reliability method and the applicable methodology used in developing, as part of the instructions for continuing airworthiness (ICA), the manufacturer recommended maintenance programme (such as maintenance steering group logic).

## AMC5 CAMO.A.305(g) Personnel requirements

ED Decision 2020/002/R

#### **INITIAL AND RECURRENT TRAINING**

- (a) Adequate initial and recurrent training should be provided and recorded to ensure that staff remain competent.
- (b) Recurrent training should take into account certain information reported through the internal safety reporting scheme (see point (c)(3) of <u>AMC1 CAMO.A.202</u>).

## GM1 CAMO.A.305(g) Personnel requirements

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#### **SAFETY TRAINING (INCLUDING HUMAN FACTORS)**

(a) The scope of the safety training and the related training programme will differ significantly depending on the size and complexity of the organisation. Safety training should reflect the evolving management system, and the changing roles of the personnel who make it work.

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- (b) In recognition of this, training should be provided to management and staff at least:
  - (1) during the initial implementation of safety management processes;
  - (2) for all new staff or personnel recently allocated to any safety management related task;
  - (3) on a regular basis to refresh their knowledge and to understand changes to the management system;
  - (4) when changes in personnel affect safety management roles, and related accountabilities, responsibilities, and authorities; and
    - NOTE: In the context of safety management, the term 'authority' is used in relation to the level of management in the organisation that is necessary to make decisions related to risk tolerability.
  - (5) when performing dedicated safety functions in domains such as safety risk management, compliance monitoring, internal investigations.
- (c) Safety training is subject to the record-keeping requirements in point CAMO.A.220(c).

## GM2 CAMO.A.305(g) Personnel requirements

ED Decision 2020/002/R

#### TRAINING SYLLABUS FOR INITIAL SAFETY TRAINING

The training syllabus below identifies the topics and subtopics that should be addressed during the safety training.

The CAMO may combine, divide, or change the order of any of the subjects in the syllabus to suit its own needs, as long as all the subjects are covered to a level of detail that is appropriate for the organisation and its personnel, including the varying level of seniority of that personnel.

Some of the topics may be covered in separate training courses (e.g. health and safety, management, supervisory skills, etc.) in which case duplication of the training is not necessary.

Where possible, practical illustrations and examples should be used, especially accident and incident reports.

Topics should be related to existing legislation, where relevant. Topics should be related to existing guidance/advisory material, where relevant (e.g. ICAO HF Digests and Training Manual).

Topics should be related to continuing airworthiness management and maintenance engineering where possible; too much unrelated theory should be avoided.

- 1 General/Introduction to safety management and HF
  - 1.1 Need to address safety management and HF
  - 1.2 Statistics
  - 1.3 Incidents
- 1a. Safety risk management
  - 1a.1. Hazard identification
  - 1a.2. Safety risk assessment
  - 1a.3. Risk mitigation and management
  - 1a.4. Effectiveness of safety risk management

- 2 Safety Culture/Organisational factors
  - 2.1 Justness/Trust
  - 2.2 Commitment to safety
  - 2.3 Adaptability
  - 2.4 Awareness
  - 2.5 Behaviour
  - 2.6 Information
- 3 Human error
  - 3.1 Error models and theories
  - 3.2 Types of errors in continuing airworthiness management and maintenance tasks
  - 3.3 Violations
  - 3.4 Implications of errors
  - 3.5 Avoiding and managing errors
  - 3.6 Human reliability
- 4 Human performance & limitations
  - 4.1 Vision
  - 4.2 Hearing
  - 4.3 Information-processing
  - 4.4 Attention and perception
  - 4.5 Situational awareness
  - 4.6 Memory
  - 4.7 Claustrophobia and physical access
  - 4.8 Motivation
  - 4.9 Fitness/Health
  - 4.10 Stress
  - 4.11 Workload management
  - 4.12 Fatigue
  - 4.13 Alcohol, medication, drugs
  - 4.14 Physical work
  - 4.15 Repetitive tasks/complacency
- 5 Environment
  - 5.1 Peer pressure
  - 5.2 Stressors
  - 5.3 Time pressure and deadlines
  - 5.4 Workload

- 5.5 Shift work
- 5.6 Noise and fumes
- 5.7 Illumination
- 5.8 Climate and temperature
- 5.9 Motion and vibration
- 5.10 Complex systems
- 5.11 Other hazards in the workplace
- 5.12 Lack of manpower
- 5.13 Distractions and interruptions
- 6 Procedures, information, tools and practices
  - 6.1 Visual inspection
  - 6.2 Work logging and recording
  - 6.3 Procedure practice/mismatch/norms
  - 6.4 Technical documentation access and quality
- 7 Communication
  - 7.1 Shift/Task handover
  - 7.2 Dissemination of information
  - 7.3 Cultural differences
- 8 Teamwork
  - 8.1 Responsibility
  - 8.2 Management, supervision and leadership
  - 8.3 Decision-making
- 9 Professionalism and integrity
  - 9.1 Keeping up to date; currency
  - 9.2 Avoiding error-provoking behaviour
  - 9.3 Assertiveness
- 10 Organisation's safety programme
  - 10.1 Safety policy and objectives, just culture principles
  - 10.2 Reporting errors and hazards, internal safety reporting scheme
  - 10.3 Investigation process
  - 10.4 Action to address problems
  - 10.5 Feedback and safety promotion

## GM3 CAMO.A.305(g) Personnel requirements

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#### **COMPETENCY OF THE SAFETY MANAGER**

The competency of a safety manager should include, but not be limited to, the following:

- (a) knowledge of ICAO standards and European requirements on safety management;
- (b) an understanding of management systems, including compliance monitoring systems;
- (c) an understanding of risk management;
- (d) an understanding of safety investigation techniques and root cause methodologies;
- (e) an understanding of HF;
- (f) understanding and promotion of a positive safety culture;
- (g) operational experience related to the activities of the organisation;
- (h) safety management experience;
- (i) interpersonal and leadership skills, and the ability to influence staff;
- (j) oral and written communications skills;
- (k) data management, analytical and problem-solving skills.

## CAMO.A.310 Airworthiness review staff qualifications

Regulation (EU) 2019/1383

- (a) Airworthiness review staff issuing airworthiness review certificates or recommendations in accordance with point (e) of point <a href="CAMO.A.125">CAMO.A.125</a> and, if applicable, issuing permits to fly in accordance with point (f) of point CAMO.A.125 shall have:
  - (1) at least 5 years of experience in continuing airworthiness;
  - (2) acquired an appropriate licence in compliance with Annex (III) Part-66 or an aeronautical degree or a national equivalent;
  - (3) received formal aeronautical maintenance training;
  - (4) held a position within the approved organisation with appropriate responsibilities.
- (b) Notwithstanding points (a)(1), (a)(3) and (a)(4), the requirement laid down in point (a)(2) may be replaced with 5 years of experience in continuing airworthiness additional to those already required by point (a)(1).
- (c) Airworthiness review staff nominated by the organisation can only be issued an authorisation by that organisation when formally accepted by the competent authority after satisfactory completion of an airworthiness review under the supervision of the competent authority, or under the supervision of the organisation's authorised airworthiness review staff, in accordance with a procedure approved by the competent authority as part of the CAME.
- (d) The organisation shall ensure that aircraft airworthiness review staff can demonstrate appropriate, recent continuing airworthiness management experience.

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## AMC1 CAMO.A.310(a) Airworthiness review staff qualifications

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#### **GENERAL**

- (a) Airworthiness review staff are only required if the CAMO wants to be granted <u>CAMO.A.125(e)</u> airworthiness review and, if applicable, <u>CAMO.A.125(f)</u> permit to fly privileges.
- (b) 'Experience in continuing airworthiness' means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks.
- (c) A person qualified according to <u>AMC1 CAMO.A.305(c)</u> subparagraph (e) should be considered as holding the equivalent to an aeronautical degree.
- (d) An appropriate licence in compliance with Annex III (Part-66) is any one of the following:
  - a category B1 or L licence in the subcategory of the aircraft reviewed, or
  - a category B2 or C licence, or
  - in the case of piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below, a category B3 licence.

It is not necessary to satisfy the experience requirements of Part-66 at the time of the review.

(e) To hold a position with appropriate responsibilities means the airworthiness review staff should have a position in the organisation independent from the airworthiness management process or with overall authority on the airworthiness management process of complete aircraft.

Independence from the airworthiness management process may be achieved, among other ways, as follows:

- By being authorised to perform airworthiness reviews only on aircraft for which the
  person has not participated in their management. For example, performing airworthiness
  reviews on a specific aircraft type, while being involved in the continuing airworthiness
  management of a different aircraft type.
- A CAMO holding a maintenance organisation approval may nominate maintenance personnel from their maintenance organisation as airworthiness review staff, as long as they are not involved in the airworthiness management of the aircraft. These personnel should not have been involved in the release to service of that particular aircraft (other than maintenance tasks performed during the physical survey of the aircraft or performed as a result of findings discovered during such physical survey) to avoid possible conflict of interests.
- By nominating as airworthiness review staff personnel from the compliance monitoring department of the CAMO.

Overall authority on the airworthiness management process of complete aircraft may be achieved, among other ways, as follows:

- By nominating as airworthiness review staff the accountable manager or the nominated post holder.
- By being authorised to perform airworthiness reviews only on those particular aircraft for which the person is responsible for the complete continuing airworthiness management process.

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 In the case of one-man organisations, this person has always overall authority. This means that this person can be nominated as airworthiness review staff.

## AMC1 CAMO.A.310(a)(3) Airworthiness review staff qualifications

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#### FORMAL AERONAUTICAL MAINTENANCE TRAINING

Formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

- Relevant parts of initial and continuing airworthiness regulations;
- Relevant parts of operational requirements and procedures, if applicable;
- The organisation's continuing airworthiness management exposition;
- Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation and could be provided by a Part-147 organisation, by the manufacturer, or by any other organisation accepted by the competent authority.
  - 'Relevant sample' means that these courses should cover typical aircraft and aircraft systems that are within the scope of work.
- Maintenance methods.

## AMC1 CAMO.A.310(c) Airworthiness review staff qualifications

ED Decision 2020/002/R

#### FORMAL ACCEPTANCE BY THE COMPETENT AUTHORITY

The approval by the competent authority of the CAME, containing, as specified in point <u>CAMO.A.300(a)(8)</u>, the nominative list of <u>CAMO.A.305(e)</u> personnel, constitutes the formal acceptance by the competent authority of the airworthiness review staff.

If the airworthiness review is performed under the supervision of existing airworthiness review staff, evidence should be provided to the competent authority.

The inclusion of an airworthiness review staff in such CAME list also constitutes the formal authorisation by the organisation.

## AMC1 CAMO.A.310(d) Airworthiness review staff qualifications

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#### RECENT EXPERIENCE AND VALIDITY

In order to keep the validity of the airworthiness review staff authorisation, the airworthiness review staff should have either:

- been involved in continuing airworthiness management activities for at least 6 months in every
   2-year period, or
- conducted at least one airworthiness review in the last 12-month period.

In order to restore the validity of the authorisation, the airworthiness review staff should conduct at a satisfactory level an airworthiness review under the supervision of the competent authority or, if accepted by the competent authority, under the supervision of another currently authorised

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airworthiness review staff of the continuing airworthiness management organisation concerned in accordance with an approved procedure.

## CAMO.A.315 Continuing airworthiness management

Regulation (EU) 2020/270

- (a) The organisation shall ensure that all continuing airworthiness management is carried out in accordance with Section A, Subpart C of Annex I (Part-M), or Section A Subpart C of Annex Vb (Part-ML), as applicable.
- (b) For every aircraft managed, the organisation shall in particular:
  - (1) ensure that an aircraft maintenance programme including any applicable reliability programme, as required by point M.A.302 or ML.A.302 as applicable, is developed and controlled;
  - (2) for aircraft not used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, provide a copy of the aircraft maintenance programme to the owner or operator responsible in accordance with point M.A.201 or ML.A.201 as applicable;
  - (3) ensure that data used for any modification and repairs complies with points M.A.304 or ML.A.304 as applicable;
  - (4) for all complex motor-powered aircraft or aircraft used by air carriers licensed in accordance with Regulation (EC) No 1008/2008, establish a procedure to assess non-mandatory modifications and/or inspections and decide on their application, making use of the organisation's safety risk management process as required by point (a)(3) of point CAMO.A.200;
  - (5) ensure that the aircraft, engine(s), propeller(s) and components thereof are taken to an appropriately approved maintenance organisation referred to in Subpart F of Annex I (Part-M), Annex II (Part-145) or Annex Vd (Part-CAO) whenever necessary;
  - (6) order maintenance, supervise activities, and coordinate related decisions to ensure that any maintenance is carried out properly and is appropriately released for the determination of aircraft airworthiness.
- (c) Where the organisation is not appropriately approved in accordance with Subpart F of Annex I (Part-M), Annex II (Part-145) or Annex Vd (Part-CAO) it shall, in consultation with the operator, manage the written maintenance contracts required by points (e)(3), (f)(3), (g)(3) and (h)(3) of M.A.201 or point ML.A.201 to ensure that:
  - (1) all maintenance is ultimately carried out by an appropriately approved maintenance organisation;
  - (2) the functions required under points (b), (c), (f) and (g) of point M.A.301 of Annex I (Part-M) or point ML.A.301 of Annex Vb (Part-ML), as applicable, are clearly specified.
- (d) Notwithstanding point (c), the contract may be in the form of individual work orders addressed to the maintenance organisation in the case of:
  - (1) an aircraft requiring unscheduled line maintenance;
  - (2) component maintenance, including engine and propeller maintenance, as applicable.
- (e) The organisation shall ensure that human factors and human performance limitations are taken into account during continuing airworthiness management, including all contracted and subcontracted activities.

## AMC1 CAMO.A.315 Continuing airworthiness management

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The CAMO should have adequate knowledge of the design information and aircraft configuration (type specification, customer options, airworthiness directives (ADs), airworthiness limitations contained in the aircraft ICA, modifications, repairs, operational and emergency equipment) and of the required and performed maintenance. The status of aircraft configuration and maintenance should be adequately documented to support the management system.

For CS-25 aeroplanes, adequate knowledge of the airworthiness limitations should cover those contained in CS-25 Book 1, Appendix H, paragraph H25.4 and fuel tank system airworthiness limitations including critical design configuration control limitations (CDCCL).

## GM1 CAMO.A.315(b)(1) Continuing airworthiness management

ED Decision 2020/002/R

#### AIRCRAFT MAINTENANCE PROGRAMME

In accordance with M.A.302 and ML.A.302, the CAMO requirement to 'control' the AMP includes in particular:

- (i) in the case of aircraft complying with Part-ML, the approval of the AMP and its amendments;
- (ii) in the case of aircraft complying with Part-M, the presentation of the AMP and its amendments to the competent authority for approval, unless the approval is covered by an indirect approval procedure in accordance with M.A.302(c).

## AMC1 CAMO.A.315(b)(3) Continuing airworthiness management

ED Decision 2020/002/R

When managing the approval of modifications or repairs, the organisation should ensure that CDCCL are taken into account.

## AMC1 CAMO.A.315(b)(4) Continuing airworthiness management

ED Decision 2020/002/R

#### **ASSESSMENT OF NON-MANDATORY INFORMATION**

The CAMO managing the continuing airworthiness of the aircraft should establish and work according to a policy, which assesses non-mandatory information (modification or inspections) related to the airworthiness of the aircraft. Non-mandatory information refers to service bulletins, service letters and other information that is produced for the aircraft and its components by an approved design organisation, the manufacturer, the competent authority or the Agency.

## GM1 CAMO.A.315(b)(5) Continuing airworthiness management

D Decision 2020/002/R

This requirement means that the CAMO is responsible for determining what maintenance is required, when it has to be performed, by whom and to what standard in order to ensure the continuing airworthiness of the aircraft.

## AMC1 CAMO.A.315(c) Continuing airworthiness management

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- (a) As provided for in M.A.201 or ML.A.201, when the operator is approved as a CAMO, or when the operator/owner contracts a CAMO, this CAMO is in charge of the continuing airworthiness management and this includes the tasks specified:
  - for Part-M aircraft, in <u>M.A.301</u> points (b), (c), (e), (f), (g) and (h);
  - for Part-ML aircraft, in <u>ML.A.301</u> points (b), (c), (d) and (e).

If the CAMO does not hold the appropriate maintenance organisation approval (Part-M Subpart F, Part-CAO or a Part-145 approval), then the CAMO should conclude a contract with the appropriate organisation(s).

- (b) The CAMO bears the responsibility for the airworthy condition of the aircraft for which it performs the continuing airworthiness management. Thus, it should be satisfied before the intended flight that all required maintenance has been properly carried out.
- (c) The CAMO should agree with the operator on the process to select a maintenance organisation before concluding any contract with a maintenance organisation.
- (d) The fact that the CAMO has contracted a maintenance organisation should not prevent it from checking at the maintenance facilities on any aspect of the contracted work to fulfil its responsibility for the airworthiness of the aircraft.
- (e) The contract between the CAMO and the maintenance organisation(s) should specify in detail the responsibilities and the work to be performed by each party.
- (f) Both the specification of work and the assignment of responsibilities should be clear, unambiguous and sufficiently detailed to ensure that no misunderstanding arises between the parties concerned that could result in a situation where work that has an effect on the airworthiness or serviceability of aircraft is not or will not be properly performed.
- (g) Special attention should be paid to procedures and responsibilities to ensure that all maintenance work is performed, service bulletins are analysed and decisions are taken on their accomplishment, airworthiness directives are accomplished on time and that all work, including non-mandatory modifications, is carried out to approved data and to the latest standards.
- (h) Appendix IV to AMC1 CAMO.A.315(c) gives further details on the subject.

## AMC2 CAMO.A.315(c) Continuing airworthiness management

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#### MAINTENANCE CONTRACT WITH ANOTHER CAMO/OPERATOR

(a) The purpose of point <u>CAMO.A.315(c)</u> is to ensure that all maintenance is carried out by an appropriately approved maintenance organisation. It is acceptable to contract another operator/CAMO (secondary operator/CAMO) that does not hold a maintenance organisation approval when it proves that such a contract is in the interest of the CAMO by simplifying the management of its maintenance, and the CAMO keeps an appropriate control of it. In this case, the CAME should include appropriate procedures to ensure that all maintenance is ultimately carried out on time by approved maintenance organisations in accordance with appropriate maintenance data. In particular, the compliance monitoring and safety risk management procedures should place great emphasis on monitoring compliance with the above and ensuring proper hazard identification, and management of risks associated with such contracting. The

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list of approved maintenance organisations, or a reference to this list, should be included in the CAME.

- (b) This contract should not preclude the CAMO from ensuring that all maintenance is performed by appropriately approved organisations which comply with <u>M.A.201</u> or <u>ML.A.201</u>. Typical arrangements are the following:
  - Component maintenance:

The CAMO may find it more appropriate to have a primary contractor (the secondary operator/CAMO) dispatching the components to appropriately approved organisations rather than sending themselves different types of components to various maintenance organisations approved under Part-145. The benefit for the CAMO is that the management of maintenance is simplified by having a single point of contact for component maintenance. The CAMO remains responsible for ensuring that all maintenance is performed by maintenance organisations approved under Part-145 and in accordance with appropriate maintenance data.

– Aircraft, engine and component maintenance:

The CAMO may wish to have a maintenance contract with a secondary operator/CAMO not approved as maintenance organisation for the same type of aircraft. A typical case is that of a dry-leased aircraft between operators where the parties, for consistency or continuity reasons (especially for short-term lease agreements), find it appropriate to keep the aircraft under the current maintenance arrangement. Where this arrangement involves various maintenance organisations, it might be more manageable for the lessee CAMO to have a single maintenance contract with the lessor operator/CAMO. Whatever type of acceptable maintenance contract is concluded, the CAMO is required to exercise the same level of control on contracted maintenance, particularly through the person(s) nominated under point <a href="CAMO.A.305(a">CAMO.A.305(a</a>) and the management system as referred to in CAMO.A.200.

## GM1 CAMO.A.315(c) Continuing airworthiness management

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#### LINE MAINTENANCE CONTRACT

For line maintenance, the actual layout of the IATA Standard Ground Handling Agreement may be used as a basis, but this does not preclude the CAMO from ensuring that the content of the contract is acceptable and especially that the contract allows the CAMO to properly exercise its continuing airworthiness management responsibility. Those parts of the contract that have no effect on the technical or operational aspects of airworthiness are outside the scope of this paragraph.

## GM1 CAMO.A.315(d) Continuing airworthiness management

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#### **WORK ORDERS**

The intent of this paragraph is that maintenance contracts are not necessary when the continuing airworthiness management exposition specifies that the relevant maintenance activity may be ordered through one-time work orders. This includes unscheduled line maintenance and may also include component maintenance up to engines, as long as the maintenance is manageable through work orders, in terms of both volume and complexity. It should be noted that this paragraph implies

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that even where base maintenance is ordered on a case-by-case basis, there should be a written maintenance contract.

#### CAMO.A.320 Airworthiness review

Regulation (EU) 2019/1383

When the organisation approved in accordance with point (e) of point <u>CAMO.A.125</u> performs airworthiness reviews, they shall be performed in accordance with point <u>M.A.901</u> of Annex I (Part-M) or point <u>ML.A.903</u> of Annex Vb (Part-ML), as applicable.

## CAMO.A.325 Continuing airworthiness management data

Regulation (EU) 2020/270

The organisation shall hold and use applicable current maintenance data in accordance with point M.A.401 of Annex I (Part-M) or point ML.A.401 of Annex Vb (Part-ML), as applicable, for the performance of continuing airworthiness tasks referred to in point CAMO.A.315 of this Annex (Part-CAMO). That data may be provided by the owner or the operator, subject to an appropriate contract being established with such an owner or operator. In such case, the continuing airworthiness management organisation shall only keep such data for the duration of the contract, except when otherwise required by point CAMO.A.220(a).

## AMC1 CAMO.A.325 Continuing airworthiness management data

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#### MAINTENANCE DATA PROVIDED BY THE CUSTOMER

When using maintenance data provided by the customer, the CAMO is responsible for ensuring that this data is current. As a consequence, it should establish appropriate procedures or provisions in the contract with the customer.

## GM1 CAMO.A.325 Continuing airworthiness management data

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#### MAINTENANCE DATA PROVIDED BY THE CUSTOMER

The sentence 'except when otherwise required by point (a) of point <u>CAMO.A.220</u>' refers to, in particular, the need to keep a copy of the customer data which was used to perform continuing airworthiness activities not only during the contract period but also, if considered as record pursuant to point <u>CAMO.A.220(a)(2)</u>, for the period specified in point <u>CAMO.A.220(a)(5)</u>.

### GM2 CAMO.A.325 Continuing airworthiness management data

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Point <u>CAMO.A.325</u> refers to 'continuing airworthiness tasks referred to in point <u>CAMO.A.315</u>'. As a consequence, this covers continuing airworthiness management tasks but not airworthiness reviews.

Airworthiness review requirements are indicated in point <u>CAMO.A.320</u> and the requirements for the corresponding record retention are contained in point <u>CAMO.A.320</u>.



## SECTION B — AUTHORITY REQUIREMENTS

## CAMO.B.005 Scope

Regulation (FII) 2019/1383

This Section establishes the administrative and management system requirements to be followed by the competent authority in charge of the implementation and enforcement of Section A of this Annex.

## **CAMO.B.115 Oversight documentation**

Regulation (EU) 2019/1383

The competent authority shall provide all legislative acts, standards, rules, technical publications, and related documents to relevant personnel in order to allow them to perform their tasks and to discharge their responsibilities.

## CAMO.B.120 Means of compliance

Regulation (EU) 2019/1383

- (a) The Agency shall develop Acceptable Means of Compliance ('AMC') that may be used to establish compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (b) Alternative means of compliance may be used to establish compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts
- (c) The competent authority shall establish a system to consistently evaluate that all alternative means of compliance used by itself or by organisations under its oversight allow for the establishment of compliance with Regulation (EU) No 2018/1139 and its delegated and implementing acts.
- (d) The competent authority shall evaluate all alternative means of compliance proposed by an organisation in accordance with point <a href="CAMO.A.120">CAMO.A.120</a> by analysing the documentation provided and, if considered necessary, conducting an inspection of the organisation.
  - When the competent authority finds that the alternative means of compliance are in accordance with Regulation (EU) 2018/1139 and its delegated and implementing acts, it shall without undue delay:
  - (1) notify the applicant that the alternative means of compliance may be implemented and, if applicable, amend the approval or certificate of the applicant accordingly;
  - (2) notify the Agency of their content, including copies of all relevant documentation.
- (e) When the competent authority itself uses alternative means of compliance to achieve compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts it shall:
  - (1) make them available to all organisations and persons under its oversight;
  - (2) without undue delay notify the Agency.

The competent authority shall provide the Agency with a full description of the alternative means of compliance, including any revisions to procedures that may be relevant, as well as an assessment demonstrating that they comply with Regulation (EU) 2018/1139 and its delegated and implementing acts.



## **GM1 CAMO.B.120 Means of compliance**

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#### **ALTERNATIVE MEANS OF COMPLIANCE**

Alternative means of compliance that are used by a competent authority, or by a CAMO under its oversight, may be used by other competent authorities or another CAMO only if they are processed again in accordance with points <a href="CAMO.B.120(d)">CAMO.B.120(d)</a> and (e).

## CAMO.B.125 Information to the Agency

Regulation (EU) 2019/1383

- (a) The competent authority shall, without undue delay, notify the Agency in case of any significant problems with the application of Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (b) The competent authority shall provide the Agency with safety-significant information stemming from the occurrence reports it has received pursuant to point <u>CAMO.A.160</u>.

## AMC1 CAMO.B.125(b) Information to the Agency

ED Decision 2020/002/R

#### **EXCHANGE OF SAFETY-SIGNIFICANT INFORMATION WITH THE AGENCY**

Each competent authority should appoint a coordinator to act as the contact point for the exchange of safety-significant information between the competent authority and the Agency.

## GM1 CAMO.B.125(b) Information to the Agency

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#### MEANING OF 'SAFETY-SIGNIFICANT INFORMATION STEMMING FROM OCCURRENCE REPORTS'

'Safety-significant information stemming from occurrence reports' means:

- a conclusive safety analysis which summarises individual occurrence data and provides an indepth analysis of a safety issue, and which may be relevant for the Agency's safety action planning; and
- (b) individual occurrence data for the cases where the Agency is the competent authority and which fulfils the reporting criteria of GM3 CAMO.B.125(b).

## GM2 CAMO.B.125(b) Information to the Agency

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#### **RECOMMENDED CONTENT FOR CONCLUSIVE SAFETY ANALYSES**

A conclusive safety analysis should contain the following:

- (a) a detailed description of the safety issue, including the scenario in which the safety issue takes
  place; and
- (b) an indication of the stakeholders affected by the safety issue, including types of operations and organisations;

and, as appropriate:

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- (c) a risk assessment establishing the severity and probability of all the possible consequences of the safety issue;
- (d) information about the existing safety barriers that the aviation system has in place to prevent the likely safety issue consequences from occurring;
- (e) any mitigating actions already in place or developed to deal with the safety issue;
- (f) recommendations for future actions to control the risk; and
- (g) any other element the competent authority considers essential for the Agency to properly assess the safety issue.

## GM3 CAMO.B.125(b) Information to the Agency

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#### OCCURRENCES WHERE THE AGENCY IS THE COMPETENT AUTHORITY

Occurrences related to organisations or products, certified by the Agency, should be notified to the Agency if:

- (a) the occurrence is defined as a reportable occurrence in accordance with the applicable regulation;
- (b) the organisation responsible for addressing the occurrence is certified by the Agency; and
- (c) the Member State competent authority has come to the conclusion that:
  - (1) the organisation certified by the Agency to which the occurrence relates has not been informed of the occurrence; or
  - (2) the occurrence has not been properly addressed or has been left unattended by the organisation certified by the Agency.

Such occurrence data should be reported in a format compatible with the European Coordination Centre for Accident and Incident Reporting Systems (ECCAIRS) and should provide all relevant information for its assessment and analysis, including necessary additional files in the form of attachments.

## CAMO.B.135 Immediate reaction to a safety problem

Regulation (EU) 2019/1383

- (a) Without prejudice to Regulation (EU) No 376/2014 and Implementing Regulation (EU) 2015/1018<sup>1</sup>, the competent authority shall implement a system to appropriately collect, analyse, and disseminate safety information.
- (b) The Agency shall implement a system to appropriately analyse any relevant safety information received, and without undue delay provide to Member States and the Commission any information, including recommendations or corrective actions to be taken, necessary for them to react in a timely manner to a safety problem involving products, parts, appliances, persons or organisations subject to Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (c) Upon receiving the information referred to in points (a) and (b), the competent authority shall take adequate measures to address the safety problem.

Regulation (EU) 2015/1018 of 29 June 2015 laying down a list classifying occurrences in civil aviation to be mandatorily reported according to Regulation (EU) No 376/2014 of the European Parliament and of the Council (OJ L 163, 30.6.2015, p. 1).

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(d) Measures taken under point (c) shall immediately be notified to all persons or organisations which need to comply with them under Regulation (EU) 2018/1139 and its delegated and implementing acts. The competent authority shall also notify those measures to the Agency and, when combined action is required, the other Member States concerned.

## CAMO.B.200 Management system

Regulation (EU) 2019/1383

- (a) The competent authority shall establish and maintain a management system, including as a minimum:
  - (1) documented policies and procedures to describe its organisation, means and methods to comply with Regulation (EU) 2018/1139 and its delegated and implementing acts. The procedures shall be kept up to date, and serve as the basic working documents within that competent authority for all related tasks;
  - (2) a sufficient number of personnel to perform its tasks and discharge its responsibilities. A system shall be in place to plan the availability of personnel, in order to ensure the proper completion of all tasks;
  - (3) personnel qualified to perform their allocated tasks and have the necessary knowledge, experience, initial and recurrent training to ensure continuing competency;
  - (4) adequate facilities and office accommodation to perform the allocated tasks;
  - (5) a function to monitor compliance of the management system with the relevant requirements and adequacy of the procedures including the establishment of an internal audit process and a safety risk management process. Compliance monitoring shall include a feedback system of audit findings to the senior management of the competent authority to ensure implementation of corrective actions as necessary;
  - (6) a person or group of persons ultimately responsible to the senior management of the competent authority for the compliance monitoring function.
- (b) The competent authority shall, for each field of activity, including management system, appoint one or more persons with the overall responsibility for the management of the relevant task(s).
- (c) The competent authority shall establish procedures for participation in a mutual exchange of all necessary information and assistance with other competent authorities concerned, including all findings raised and follow-up actions taken as a result of oversight of persons and organisations exercising activities in the territory of a Member State, but certified by the competent authority of another Member State or the Agency.
- (d) A copy of the procedures related to the management system and their amendments shall be made available to the Agency for the purpose of standardisation and to the organisations subject to this Regulation, if so requested.

## AMC1 CAMO.B.200 Management system

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#### **ORGANISATIONAL STRUCTURE**

- (a) In deciding upon the required organisational structure, the competent authority should review:
  - (1) the number of certificates to be issued, and the number and size of the potential CAMOs within that Member State:

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- (2) the possible use of qualified entities and of the resources of the competent authorities of other Member States to fulfil the continuing oversight obligations;
- (3) the level of civil aviation activity, number and complexity of aircraft and the size of the Member State's aviation industry; and
- (4) the potential growth of activities in the field of civil aviation.
- (b) The competent authority should retain effective control of important surveillance functions and should not delegate them in such a way that CAMOs, in effect, regulate themselves in airworthiness matters.
- (c) The set-up of the organisational structure should ensure that the various tasks and obligations of the competent authority do not solely rely on individuals. The continuous and undisturbed fulfilment of these tasks and obligations of the competent authority should also be guaranteed in case of illness, accident or leave of individual employees.

## AMC2 CAMO.B.200 Management system

ED Decision 2020/002/R

#### **GENERAL**

- (a) The competent authority designated by each Member State should be organised in such a way that:
  - (1) there is specific and effective management authority in the conduct of all the relevant activities;
  - (2) the functions and processes described in the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts, AMC, Certification Specifications (CSs), and Guidance Material (GM) may be properly implemented;
  - (3) the competent authority's organisation and operating procedures for the implementation of the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts are properly documented and applied;
  - (4) all the competent authority's personnel who are involved in the related activities are provided with training where necessary;
  - (5) specific and effective provision is made for communicating and interfacing as necessary with EASA and the competent authorities of other Member States; and
  - (6) all the functions related to implementing the applicable requirements are adequately described.
- (b) A general policy in respect of the activities related to the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts should be developed, promoted, and implemented by the manager at the highest appropriate level; for example, the manager at the top of the functional area of the competent authority that is responsible for such activities.
- (c) Appropriate steps should be taken to ensure that the policy is known and understood by all the personnel involved, and all the necessary steps should be taken to implement and maintain the policy.
- (d) The general policy, whilst also satisfying the additional national regulatory responsibilities, should, in particular, take into account:
  - (1) the provisions of Regulation (EU) 2018/1139;

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- (2) the provisions of the applicable implementing rules and their AMC, CSs, and GM;
- (3) the needs of industry; and
- (4) the needs of EASA and of the competent authority.
- (e) The policy should define specific objectives for the key elements of the organisation and processes for implementing the related activities, including the corresponding control procedures and the measurement of the achieved standard.

## AMC1 CAMO.B.200(a)(1) Management system

ED Decision 2020/002/R

#### **DOCUMENTED POLICIES AND PROCEDURES**

- (a) The various elements of the organisation involved with the activities related to Regulation (EU) 2018/1139 and its delegated and implementing acts should be documented in order to establish a reference source for the establishment and maintenance of this organisation.
- (b) The documented procedures should be established in a way that facilitates their use. They should be clearly identified, kept up to date, and made readily available to all the personnel who are involved in the related activities.
- (c) The documented procedures should cover, as a minimum, all of the following aspects:
  - (1) policy and objectives;
  - (2) organisational structure;
  - (3) responsibilities and associated authority;
  - (4) procedures and processes;
  - (5) internal and external interfaces;
  - (6) internal control procedures;
  - (7) the training of personnel;
  - (8) cross-references to associated documents;
  - (9) assistance from other competent authorities or EASA (where required).
- (d) It is likely that the information may be held in more than one document or series of documents, and suitable cross-referencing should be provided. For example, the organisational structure and job descriptions are not usually in the same documentation as the detailed working procedures. In such cases, it is recommended that the documented procedures should include an index of cross references to all such other related information, and the related documentation should be readily available when required.

## GM1 CAMO.B.200(a)(2) Management system

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#### **SUFFICIENT PERSONNEL**

(a) This GM on the determination of the required personnel is limited to the performance of certification and oversight tasks, excluding any personnel who are required to perform tasks that are subject to any national regulatory requirements.

- (b) The elements to be considered when determining who are the required personnel and planning their availability may be divided into quantitative and qualitative elements:
  - (1) Quantitative elements:
    - (i) the estimated number of initial certificates to be issued;
    - (ii) the number of organisations to be certified by the competent authority; and
    - (iii) the estimated number of subcontracted organisations used by certified organisations.
  - (2) Qualitative elements:
    - (i) the size, nature, and complexity of the activities of certified organisations, taking into account:
      - (A) the privileges of each organisation;
      - (B) the types of approval and the scope of approval;
      - (C) possible certification to industry standards;
      - (D) the number of personnel; and
      - (E) the organisational structure and the existence of subsidiaries;
    - (ii) the safety priorities identified;
    - (iii) the results of past oversight activities, including audits, inspections and reviews, in terms of risks and regulatory compliance, taking into account:
      - (A) the number and the level of findings;
      - (B) the time frame for implementation of corrective actions; and
      - (C) the maturity of the management systems implemented by organisations, and their ability to effectively manage safety risks; and
    - (iv) the size and complexity of the Member State's aviation industry, and the potential growth of activities in the field of civil aviation, which may be an indication of the number of new applications and changes to existing certificates to be expected.
- (c) Based on the existing data from previous oversight planning cycles, and taking into account the situation within the Member State's aviation industry, the competent authority may estimate:
  - (1) the standard working time required for processing applications for new certificates;
  - (2) the number of new certificates to be issued for each planning period; and
  - (3) the number of changes to existing certificates to be processed for each planning period.
- (d) In line with the competent authority's oversight policy, the following planning data should be determined:
  - (1) the standard number of audits to be performed per oversight planning cycle;
  - (2) the standard duration of each audit;
  - (3) the standard working time for audit preparation, on-site audit, reporting, and follow-up, per inspector;
  - (4) the standard number of unannounced inspections to be performed;

- (5) the standard duration of inspections, including preparation, reporting, and follow-up, per inspector; and
- (6) the minimum number and the required qualification of the inspectors for each audit/inspection.
- (e) The standard working time could be expressed either in working hours per inspector, or in working days per inspector. All planning calculations should then be based on the same unit (hours or working days).
- (f) It is recommended that the competent authority use a spreadsheet application to process the data defined under (c) and (d), to assist in determining the total number of working hours/days per oversight planning cycle required for certification, oversight and enforcement activities. This application could also serve as a basis for implementing a system for planning the availability of personnel.
- (g) The number of working hours/days per planning period for each qualified inspector that may be allocated for certification, oversight and enforcement activities should be determined, taking into account:
  - (1) purely administrative tasks that are not directly related to certification and oversight;
  - (2) training;
  - (3) participation in other projects;
  - (4) planned absence; and
  - (5) the need to include a reserve for unplanned tasks or unforeseeable events.
- (h) The determination of the working time available for certification, oversight and enforcement activities should also consider, as applicable:
  - (1) the use of qualified entities;
  - (2) cooperation with other competent authorities for approvals that involve more than one Member State; and
  - (3) oversight activities under a bilateral aviation safety agreement.
- (i) Based on the elements listed above, the competent authority should be able to:
  - (1) monitor the dates when audits and inspections are due, and when they were carried out;
  - (2) implement a system to plan the availability of personnel; and
  - (3) identify possible gaps between the number and qualification of personnel and the required volume of certification and oversight.

Care should be taken to keep planning data up to date in line with changes in the underlying planning assumptions, with particular focus on risk-based oversight principles.

## AMC1 CAMO.B.200(a)(3) Management system

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## QUALIFICATION AND TRAINING — GENERAL

(a) It is essential for the competent authority to have the full capability to adequately assess the compliance and performance of an organisation by ensuring that the whole range of activities is assessed by appropriately qualified personnel.

- (b) For each inspector, the competent authority should:
  - (1) define the competencies required to perform the allocated certification and oversight tasks;
  - (2) define the associated minimum qualifications that are required;
  - (3) establish initial and recurrent training programmes in order to maintain and to enhance the competency of inspectors at the level that is necessary to perform the allocated tasks; and
  - (4) ensure that the training provided meets the established standards, and is regularly reviewed and updated whenever necessary.
- (c) The competent authority may provide training through its own training organisation with qualified trainers, or through another qualified training source.
- (d) If training is not provided through an internal training organisation, adequately experienced and qualified persons may act as trainers, provided that their training skills have been assessed. If required, an individual training plan should be established that covers specific training skills. Records should be kept of such training, and of the assessment, as appropriate.

## AMC2 CAMO.B.200(a)(3) Management system

ED Decision 2020/002/R

## **QUALIFICATION AND TRAINING — INSPECTORS**

- (a) Competent authority inspectors should have:
  - (1) practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - (2) comprehensive knowledge of:
    - (a) the relevant parts of the implementing rules, certification specifications and guidance material;
    - (b) the competent authority's procedures;
    - (c) the rights and obligations of an inspector;
    - (d) safety management systems based on the EU management system requirements (including compliance monitoring) and ICAO Annex 19;
    - (e) continuing airworthiness management including maintenance programme development and control;
    - (f) operational procedures that affect the continuing airworthiness management of the aircraft or its maintenance; and
    - (g) maintenance-related HF and human performance principles;
  - (3) training on auditing techniques and assessing and evaluating management systems and safety risk management processes.
  - (4) 5 years of relevant work experience for them to be allowed to work independently as inspectors. This may include experience gained during training to obtain the qualification mentioned below in point (a)(5);
  - (5) a relevant engineering degree or an aircraft maintenance technician qualification with additional education. 'Relevant engineering degree' refers to an engineering degree from

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- aeronautical, mechanical, electrical, electronic, avionic or other studies that are relevant to the maintenance and continuing airworthiness of aircraft/aircraft components;
- (6) knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation.
  - 'Relevant sample' means that these courses should cover typical aircraft and aircraft systems that are within the scope of work; and
- (7) knowledge of maintenance standards, including fuel tank safety (FTS) training as described in Appendix III to AMC4 CAMO.A.305(g).
- (b) In addition to technical competency, inspectors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.
- (c) A programme for recurrent training should be developed that ensures that the inspectors remain competent to perform their allocated tasks. As a general policy, it is not desirable for the inspectors to obtain technical qualifications from those entities that are under their direct regulatory oversight.

## AMC3 CAMO.B.200(a)(3) Management system

ED Decision 2020/002/R

#### **INITIAL AND RECURRENT TRAINING — INSPECTORS**

(a) Initial training programme:

The initial training programme for inspectors should include, as appropriate to their role, current knowledge, experience and skills in at least all of the following:

- (1) aviation legislation, organisation, and structure;
- (2) the Chicago Convention, the relevant ICAO Annexes and Documents;
- (3) Regulation (EU) No 376/2014 on the reporting, analysis and follow-up of occurrences in civil aviation;
- (4) overview of Regulation (EU) 2018/1139, its delegated and implementing acts and the related AMC, CS, and GM;
- (5) Regulation (EU) No 1321/2014 as well as any other applicable requirements;
- (6) management systems, including the assessment of the effectiveness of a management system, in particular hazard identification and risk assessment, and non-punitive reporting techniques in the context of the implementation of a 'just culture';
- (7) auditing techniques;
- (8) procedures of the competent authority that are relevant to the inspectors' tasks;
- (9) HF principles;
- (10) the rights and obligations of inspecting personnel of the competent authority;
- (11) on-the-job training that is relevant to the inspector's tasks; and
- (12) technical training, including training on aircraft-specific subjects, that is appropriate to the role and tasks of the inspector, in particular for those areas that require approvals.

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NOTE: The duration of the on-the-job training should take into account the scope and complexity of the inspector's tasks. The competent authority should assess whether the required competency has been achieved before an inspector is authorised to perform a task without supervision.

## (b) Recurrent training programme

Once qualified, the inspector should undergo training periodically, as well as whenever deemed necessary by the competent authority, in order to remain competent to perform the allocated tasks. The recurrent training programme for inspectors should include, as appropriate to their role, at least the following topics:

- (1) changes in aviation legislation, the operational environment and technologies;
- (2) procedures of the competent authority that are relevant to the inspector's tasks;
- (3) technical training, including training on aircraft-specific subjects, that is appropriate to the role and tasks of the inspector; and
- (4) results from past oversight.
- (c) An assessment of an inspector's competency should take place at regular intervals that do not exceed 3 years. The results of these assessments, as well as any actions taken following the assessments, should be recorded.

## AMC1 CAMO.B.200(a)(5) Management system

ED Decision 2020/002/R

#### **SAFETY RISK MANAGEMENT PROCESS**

- (a) The safety risk management process required by point <u>CAMO.B.200</u> should be documented. The following should be defined in the related documentation:
  - (1) means for hazard identification, and the related data sources, taking into account data that comes from other competent authorities with which the competent authority interfaces in the State, or from the competent authorities of other Member States;
  - (2) risk management steps including:
    - (i) analysis (in terms of the probability and the severity of the consequences of hazards and occurrences);
    - (ii) assessment (in terms of tolerability); and
    - (iii) control (in terms of mitigation) of risks to an acceptable level;
  - (3) who holds the responsibilities for hazard identification and risk management;
  - (4) who holds the responsibilities for the follow-up of risk mitigation actions;
  - (5) the levels of management who have the authority to make decisions regarding the tolerability of risks;
  - (6) means to assess the effectiveness of risk mitigation actions; and
  - (7) the link with the compliance monitoring function.
- (b) To demonstrate that the safety risk management process is operational, competent authorities should be able to provide evidence that:
  - (1) the persons involved in internal safety risk management activities are properly trained;

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- (2) hazards that could impact the authority's capabilities to perform its tasks and discharge its responsibilities have been identified and the related risk assessment is documented;
- (3) regular meetings take place at appropriate levels of management of the competent authority to discuss the risks identified, and to decide on the tolerability of risks and possible risk mitigations;
- (4) in addition to the initial hazard identification exercise, the risk management process is triggered as a minimum whenever changes occur that may affect the competent authority's capability to perform any of the tasks required by Part-CAMO;
- (5) a record of the actions taken to mitigate risks is maintained, showing the status of each action and the owner of the action;
- (6) there is a follow-up on the implementation of all risk mitigation actions;
- (7) risk mitigation actions are assessed for their effectiveness; and
- (8) the results of risk assessments are periodically reviewed to check whether they remain relevant. (Are the assumptions still valid? Is there new information?).

## GM1 CAMO.B.200(a)(5) Management system

ED Decision 2020/002/R

#### **SAFETY RISK MANAGEMENT PROCESS**

The purpose of safety risk management as part of the management system framework for competent authorities is to ensure the effectiveness of the management system. As for any organisation, hazard identification and risk management is expected to contribute to effective decision-making, to guide the allocation of resources and contribute to organisational success.

The safety risk management process required by point <u>CAMO.B.200</u> is intended to address the safety risks that are directly related to the competent authority's organisation and processes, and which may affect its capability to perform its tasks and discharge its responsibilities. This process is not intended to be a substitute for the State safety risk management SARPs defined in ICAO Annex 19, Chapter 3, component 3.3. This does not mean, however, that the competent authority may not use information and data that is obtained through its State Safety Programme (SSP), including oversight data and information, for the purpose of safety risk management as part of its management system.

The safety risk management process is also to be applied to the management of changes (<u>CAMO.B.210</u>), which is intended to ensure that the management system remains effective whenever changes occur.

# AMC1 CAMO.B.200(d) Management system

ED Decision 2020/002/R

#### PROCEDURES TO BE MADE AVAILABLE TO THE AGENCY

- (a) Copies of the procedures related to the competent authority's management system, and their amendments, that should be made available to the Agency for the purpose of standardisation, should provide at least the following information:
  - (1) the competent authority's organisational structure for the continuing oversight functions that it undertakes, with a description of the main processes. This information should demonstrate the allocation of responsibilities within the competent authority, and that the competent authority is capable of carrying out the full range of tasks for the size and

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- complexity of the Member State's aviation industry. It should also consider the overall proficiency and the scope of authorisation of the competent authority's personnel;
- (2) for personnel who are involved in oversight activities, the minimum required professional qualification and amount of experience, and the principles that are used to guide their appointment (e.g. assessment);
- (3) how the following are carried out: assessments of applications and evaluations of compliance, the issuing of certificates, continuing oversight activities, the follow-up of findings, enforcement measures and the resolution of safety concerns;
- (4) the principles used for the management of exemptions and derogations;
- (5) the processes that are in place to distribute the applicable safety information to enable a timely reaction to a safety problem;
- (6) the criteria for planning continuing oversight activities (i.e. oversight programme), including the management of interfaces when conducting continuing oversight activities (of air operations and of continuing airworthiness management, for example); and
- (7) an outline of the initial training of newly recruited oversight personnel (taking future activities into account), and the basic framework for the recurrent training of oversight personnel.
- (b) As part of the continuous monitoring of a competent authority, the Agency may request details of the working methods used, in addition to a copy of the procedures of the competent authority's management system (and any amendments). These additional details are the procedures and the related guidance material that describe the working methods for the personnel of the competent authority who conduct oversight activities.
- (c) Information related to the competent authority's management system may be submitted in an electronic format.

## CAMO.B.205 Allocation of tasks to qualified entities

Reaulation (EU) 2019/1383

- (a) Tasks related to the initial certification, or continuing oversight of persons, or organisations subject to Regulation (EU) 2018/1139 and its delegated and implementing acts may be allocated by Member States only to qualified entities. When allocating tasks, the competent authority shall ensure that it has:
  - (1) put a system in place to initially and continuously assess that the qualified entity complies with Annex VI 'Essential requirements for qualified entities' to Regulation (EU) 2018/1139. This system and the results of the assessments shall be documented;
  - (2) established a documented agreement with the qualified entity, approved by both parties at the appropriate management level, which clearly defines:
    - (i) the tasks to be performed;
    - (ii) the declarations, reports, and records to be provided;
    - (iii) the technical conditions to be met in performing such tasks;
    - (iv) the related liability coverage;
    - (v) the protection given to information acquired in carrying out such tasks.

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(b) The competent authority shall ensure that the internal audit process and safety risk management process required by point (a)(5) of point <u>CAMO.B.200</u> covers all certification, or continuing oversight tasks performed on its behalf.

## GM1 CAMO.B.205 Allocation of tasks to qualified entities

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#### **CERTIFICATION TASKS**

The tasks that may be performed by a qualified entity on behalf of the competent authority include those that are related to the initial certification and to the continuing oversight of persons and organisations as defined in Regulation (EU) No 1321/2014.

## CAMO.B.210 Changes in the management system

Reaulation (EU) 2019/1383

- (a) The competent authority shall have a system in place to identify changes that affect its capability to perform its tasks and discharge its responsibilities as defined in Regulation (EU) 2018/1139 and its delegated and implementing acts. This system shall enable it to take action as appropriate to ensure that its management system remains adequate and effective.
- (b) The competent authority shall update its management system to reflect any change to Regulation (EU) 2018/1139 and its delegated and implementing acts in a timely manner, so as to ensure effective implementation.
- (c) The competent authority shall notify the Agency of changes affecting its capability to perform its tasks and discharge its responsibilities as defined in Regulation (EU) 2018/1139 and its delegated and implementing acts.

## CAMO.B.220 Record-keeping

Regulation (EU) 2019/1383

- (a) The competent authority shall establish a system of record-keeping that allows adequate storage, accessibility, and reliable traceability of:
  - (1) the management system's documented policies and procedures;
  - (2) training, qualification, and authorisation of its personnel;
  - (3) the allocation of tasks, covering the elements required by point <u>CAMO.B.205</u>, as well as the details of tasks allocated;
  - (4) certification processes and continuing oversight of certified organisations, including:
    - (i) the application for an organisation certificate;
    - (ii) the competent authority's continuing oversight programme, including all assessment, audit and inspection records;
    - (iii) the organisation certificate, including any changes thereto;
    - (iv) a copy of the oversight programme listing the dates when audits are due and when audits were carried out;
    - (v) copies of all formal correspondence;
    - (vi) details of findings, corrective actions, date of action closure, any exemption and enforcement actions;

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- (vii) any assessment, audit and inspection reports issued by another competent authority pursuant to point (d) of point <u>CAMO.B.300</u>;
- (viii) copies of all organisation CAMEs or manuals and amendments thereto;
- (ix) copies of any other document approved by the competent authority;
- (5) the evaluation and notification to the Agency of alternative means of compliance proposed by organisations, and the assessment of alternative means of compliance used by the competent authority itself;
- (6) safety information and follow-up measures in accordance with point CAMO.B.125;
- (7) the use of flexibility provisions in accordance with Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (b) The competent authority shall maintain a list of all organisation certificates it issued.
- (c) All records referred to in points (a) and (b) shall be kept for a minimum period of 5 years subject to applicable data protection law.
- (d) All records referred to in points (a) and (b) shall be made available upon request to a competent authority of another Member State or the Agency.

## AMC1 CAMO.B.220(a) Record-keeping

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#### **GENERAL**

- (a) The record-keeping system should ensure that all records are accessible within a reasonable time whenever they are needed. These records should be organised in a manner that ensures their traceability and retrievability throughout the required retention period.
- (b) All records that contain sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality.
- (c) Records should be kept in paper form or in electronic format or a combination of the two. Records that are stored on microfilm or optical discs are also acceptable. The records should remain legible and accessible throughout the required retention period. The retention period starts when the record is created.
- (d) Paper systems should use robust material which can withstand normal handling and filing. Computer record systems should have at least one backup system, which should be updated within 24 hours of any new entry. Computer record systems should include safeguards against any unauthorised personnel from altering the data.
- (e) All computer hardware that is used to ensure the backup of data should be stored in a different location from the one that contains the working data, and in an environment that ensures that the data remains in a good condition. When hardware or software changes take place, special care should be taken to ensure that all the necessary data continues to be accessible throughout at least the full period specified in point <a href="CAMO.B.220(c">CAMO.B.220(c</a>).



## AMC1 CAMO.B.220(a)(1) Record-keeping

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#### **COMPETENT AUTHORITY MANAGEMENT SYSTEM**

Records that are related to the competent authority's management system should include, as a minimum, and as applicable:

- (a) the documented policies and procedures;
- (b) the personnel files of the competent authority's personnel, with the supporting documents related to their training and qualifications;
- (c) the results of the competent authority's internal audit and safety risk management processes, including audit findings, and corrective, preventive and risk mitigation actions; and
- (d) the contract(s) established with any qualified entities that perform certification or oversight tasks on behalf of the competent authority.

## AMC1 CAMO.B.220(d) Record-keeping

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#### REQUEST BY A COMPETENT AUTHORITY OF ANOTHER MEMBER STATE OR THE AGENCY

The cases, when records shall be made available should be limited to:

- incidents or accidents;
- findings through the aircraft continuing airworthiness monitoring (ACAM) programme where organisations approved by another competent authority are involved, to determine the root cause;
- aircraft mainly operated in another Member State;
- aircraft previously operated in another Member State;
- organisations having approvals in several Member States.

When records are requested from another Member State, the reason for the request should be clearly stated. The records can be made available by sending a copy or by allowing their consultation.

## **CAMO.B.300 Oversight principles**

Regulation (EU) 2019/1383

- (a) The competent authority shall verify:
  - (1) compliance with the requirements applicable to organisations prior to the issue of an organisation certificate, as applicable;
  - (2) continued compliance with the applicable requirements of organisations it has certified;
  - (3) implementation of appropriate safety measures mandated by the competent authority as defined in points (c) and (d) of point <u>CAMO.B.135</u>.
- (b) This verification shall:
  - (1) be supported by documentation specifically intended to provide personnel responsible for safety oversight with guidance to perform their functions;
  - (2) provide the organisations concerned with the results of safety oversight activity;

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- (3) be based on assessments, audits and inspections, including unannounced inspections;
- (4) provide the competent authority with the evidence needed in case further action is required, including the measures provided for in point <a href="#">CAMO.B.350</a> 'Findings and corrective actions'.
- (c) The scope of oversight defined in points (a) and (b) shall take into account the results of past oversight activities and the safety priorities.
- (d) Where organisation facilities are located in more than one State, the competent authority as defined in point <a href="CAMO.A.105">CAMO.A.105</a> may agree to have oversight tasks performed by the competent authority(ies) of the Member State(s) where facilities are located, or by the Agency for facilities located in a third country. Any organisation subject to such agreement shall be informed of its existence and of its scope.
- (e) For oversight performed at facilities located in another State, the competent authority as defined in point CAMO.A.105 shall inform the competent authority of such State, or the Agency for facilities of organisations having their principal place of business in a third country, before performing any on-site audit or inspection of such facilities.
- (f) The competent authority shall collect and process any information deemed useful for oversight, including for unannounced inspections.

# AMC1 CAMO.B.300(a);(b);(c) Oversight principles

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#### **MANAGEMENT SYSTEM ASSESSMENT**

As part of the initial certification of an organisation, the competent authority should assess the organisation's management system and processes to make sure that all the required enablers of a functioning management system are present and suitable.

As part of its continuing oversight activities, the competent authority should verify that the required enablers remain present and operational, and assess the effectiveness of the organisation's management system and processes.

When significant changes take place in the organisation, the competent authority should determine whether there is a need to review the existing assessment to ensure that it is still appropriate.

## AMC1 CAMO.B.300(f) Oversight principles

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## INFORMATION DEEMED USEFUL FOR OVERSIGHT

This information should include, as a minimum:

- (a) any occurrence reports received by the competent authority;
- (b) the results of the following types of inspections and surveys if they indicate an issue that originates from a Part-CAMO organisation:
  - (i) ramp inspections performed in accordance with Subpart RAMP of Annex II (Part-ARO) of Commission Regulation (EU) No 965/2012 'Air Operations';
  - (ii) product surveys of aircraft pursuant to points M.B.303 or ML.B.303;
  - (iii) results of aircraft sample surveys conducted pursuant to point <u>CAMO.B.305(b)(1)</u>; and

(iv) results of physical surveys or partial airworthiness reviews performed by the competent authority in line with point M.B.901.

## CAMO.B.305 Oversight programme

Regulation (EU) 2019/1383

- (a) The competent authority shall establish and maintain an oversight programme covering the oversight activities required by point CAMO.B.300.
- (b) The oversight programme shall be developed taking into account the specific nature of the organisation, the complexity of its activities, the results of past certification and/or oversight activities, and shall be based on the assessment of associated risks. It shall include within each oversight planning cycle:
  - (1) assessments, audits and inspections, including unannounced inspections and, as applicable:
    - (i) management system assessments and process audits;
    - (ii) product audits of a relevant sample of aircraft managed by the organisation;
    - (iii) sampling of airworthiness reviews performed;
    - (iv) sampling of permits to fly issued;
  - (2) meetings convened between the accountable manager and the competent authority to ensure both remain informed of significant issues.
- (c) For organisations certified by the competent authority, an oversight planning cycle not exceeding 24 months shall be applied.
- (d) Notwithstanding point (c), the oversight planning cycle may be extended up to 36 months if the competent authority has established that during the previous 24 months:
  - (1) the organisation has demonstrated an effective identification of aviation safety hazards and management of associated risks;
  - (2) the organisation has continuously demonstrated under point <u>CAMO.A.130</u> that it has full control over all changes;
  - (3) no level 1 findings have been issued;
  - (4) all corrective actions have been implemented within the time period accepted or extended by the competent authority as defined in point <u>CAMO.B.350</u>.

Notwithstanding point (c), the oversight planning cycle may be further extended to a maximum of 48 months if, in addition to the conditions provided in points (1) to (4) of the first subparagraph, the organisation has established, and the competent authority has approved, an effective continuous reporting system to the competent authority on the safety performance and regulatory compliance of the organisation itself.

- (e) The oversight planning cycle may be reduced if there is any evidence that the safety performance of the organisation has decreased.
- (f) The oversight programme shall include records of the dates when audits, inspections and meetings are due, and when such audits, inspections and meetings have been carried out.
- (g) At the completion of each oversight planning cycle, the competent authority shall issue a recommendation report on the continuation of the approval reflecting the results of oversight.



## AMC1 CAMO.B.305(a);(b) Oversight programme

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#### **ANNUAL REVIEW**

- (a) The oversight planning cycle and the related oversight programme for each organisation should be reviewed annually to ensure that they remain adequate regarding any changes in the nature, complexity or the safety performance of the organisation.
- (b) When reviewing the oversight planning cycle and the related oversight programme, the competent authority should also consider any relevant information collected in accordance with points CAMO.A.160 and CAMO.B.300(f).

## AMC1 CAMO.B.305(b) Oversight programme

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## SPECIFIC NATURE AND COMPLEXITY OF THE ORGANISATION — RESULTS OF PAST OVERSIGHT

When determining the oversight programme, including the product audits, the competent authority should consider in particular the following elements, as applicable:

- (1) the effectiveness of the organisation's management system in identifying and addressing non-compliances and safety hazards;
- (2) the implementation by the organisation of any industry standards that are directly relevant to the organisation's activity subject to this Regulation;
- (3) the procedure applied for and the scope of changes not requiring prior approval;
- (4) any specific procedures implemented by the organisation that are related to any alternative means of compliance used;
- (5) the number of approved locations and the activities performed at each location;
- (6) the number and type of any subcontractors who perform continuing airworthiness management tasks; and
- (7) the volume of activity for each aircraft type / series / group, as applicable.

# AMC2 CAMO.B.305(b) Oversight programme

ED Decision 2020/002/R

#### SUBCONTRACTED ACTIVITIES

When a CAMO subcontracts continuing airworthiness management tasks, all subcontracted organisations should also be audited by the competent authority at periods not exceeding the applicable oversight planning cycle (credits per <u>AMC2 CAMO.B.305(c)</u> point (d) are permitted) to ensure that the subcontracted continuing airworthiness management tasks are carried out in compliance with Part-CAMO, Part-M and Part-ML, as applicable.

For these audits, the competent authority inspector should ensure that he or she is accompanied throughout the audit by a senior technical member of the CAMO.

NOTE: When a CAMO subcontracts continuing airworthiness management tasks, the competent authority should also ensure that the CAMO has sufficient control over the subcontracted organisation (see <u>AMC1 CAMO.A.125(d)(3)</u>).



## AMC1 CAMO.B.305(b)(1) Oversight programme

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#### **AUDIT**

- (a) The oversight programme should indicate which aspects of the approval will be covered by each audit.
- (b) Part of each audit should concentrate on the audit reports produced by the organisation's compliance monitoring function, to determine whether the organisation has been identifying and correcting its problems.
- (c) At the conclusion of the audit, the auditing inspector should complete an audit report that identifies the areas and processes that were audited, and includes all findings that were raised.
- (d) At the completion of each oversight planning cycle, a new EASA Form 13-CAMO should be issued.

## AMC1 CAMO.B.305(c) Oversight programme

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#### **OVERSIGHT PLANNING CYCLE — AUDIT AND INSPECTION**

- (a) When determining the oversight planning cycle and defining the oversight programme, the competent authority should assess the risks related to the activity of each organisation, and adapt the oversight to the level of risk identified and to the effectiveness of the organisation's management system, in particular its ability to effectively manage safety risks.
- (b) The competent authority should establish a schedule of audits and inspections that is appropriate to each organisation. The planning of audits and inspections should take into account the results of the hazard identification and the risk assessment conducted and maintained by the organisation as part of the organisation's management system. Inspectors should work in accordance with the schedule provided to them.
- (c) When the competent authority, having regard to the level of risk identified and the effectiveness of the organisation's management system, varies the frequency of an audit or inspection, it should ensure that all aspects of the organisation's activity are audited and inspected within the applicable oversight planning cycle.

## AMC2 CAMO.B.305(c) Oversight programme

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#### **OVERSIGHT PLANNING CYCLE — AUDIT**

- (a) For each organisation certified by the competent authority, all processes should be completely audited at periods that do not exceed the applicable oversight planning cycle. The beginning of the first oversight planning cycle is normally determined by the date of issue of the first certificate. If the competent authority wishes to align the oversight planning cycle with the calendar year, it should shorten the first oversight planning cycle accordingly.
- (b) The interval between two audits for a particular process should not exceed the interval of the applicable oversight planning cycle.
- (c) Audits should include at least one on-site audit within each oversight planning cycle. For organisations who carry out their regular activity at more than one site, the determination of

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the sites to be audited should consider the results of past oversight activities and the volume of activities at each site, as well as main risk areas identified.

- (d) For organisations holding more than one certificate, the competent authority may define an integrated oversight schedule to include all the applicable audit items. In order to avoid any duplication of audits, credit may be granted for specific audit items that have already been completed during the current oversight planning cycle, provided that:
  - (1) the specific audit item is the same for all the certificates under consideration;
  - (2) there is satisfactory evidence on record that those specific audit items were carried out, and that all the related corrective actions have been implemented to the satisfaction of the competent authority;
  - (3) the competent authority is satisfied that there is no evidence that standards have deteriorated regarding those specific audit items for which credit is granted;
  - (4) the interval between two audits for the specific item for which credit is granted does not exceed the applicable oversight planning cycle.

## AMC1 CAMO.B.305(d) Oversight programme

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#### **EXTENSION OF THE OVERSIGHT PLANNING CYCLE BEYOND 24 MONTHS**

- (a) If the competent authority applies an oversight planning cycle that exceeds 24 months, it should, at a minimum, perform one focused inspection of the organisation (inspection of a specific area, element or aspect of the organisation) within each 12-month segment of the cycle to support the extended oversight programme.
  - NOTE: Where another inspection can be linked to the oversight of the organisation (e.g. when an aircraft managed by the organisation is inspected through ACAM survey), then the competent authority may take credit of such inspection to maintain the extension beyond 24 months.
- (b) If the results of this inspection indicate a decrease in the safety performance or regulatory compliance of the organisation, the competent authority should revert to a 24-month (or less) oversight planning cycle and review the oversight programme accordingly.
- (c) In order to be able to approve an oversight planning cycle of beyond 36 months, the competent authority should agree on the format and contents of the continuous reporting to be made by the organisation on its safety performance and regulatory compliance.

## CAMO.B.310 Initial certification procedure

Regulation (EU) 2019/1383

- (a) Upon receiving an application for the initial issue of a certificate for an organisation, the competent authority shall verify the organisation's compliance with the applicable requirements.
- (b) A meeting with the accountable manager of the organisation shall be convened at least once during the investigation for initial certification to ensure that he/she fully understands the significance of the certification process and the reason for signing the statement of the organisation to comply with the procedures specified in the CAME.

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- (c) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (d) The competent authority shall confirm in writing all the findings raised during the verification to the organisation. For initial certification, all findings must be corrected to the satisfaction of the competent authority before the certificate can be issued.
- (e) When satisfied that the organisation complies with the applicable requirements, the competent authority shall:
  - (1) issue the certificate as established in Appendix I 'EASA Form 14' to this Annex;
  - (2) formally approve the CAME.
- (f) The certificate reference number shall be included on the EASA Form 14 certificate in a manner specified by the Agency.
- (g) The certificate shall be issued for an unlimited duration. The privileges, scope of the activities that the organisation is approved to conduct, including any limitations as applicable, shall be specified in the terms of approval attached to the certificate.
- (h) To enable the organisation to implement changes without prior competent authority approval in accordance with point (c) of point <u>CAMO.A.130</u>, the competent authority shall approve the relevant CAME procedure defining the scope of such changes and describing how such changes will be managed and notified.

## AMC1 CAMO.B.310 Initial certification procedure

ED Decision 2020/002/R

#### **VERIFICATION OF COMPLIANCE**

- (a) In order to verify the organisation's compliance with the applicable requirements, the competent authority should conduct an audit of the organisation, including interviews of the personnel, and inspections carried out at the organisation's facilities.
- (b) The competent authority should only conduct such an audit if it is satisfied that the application and the supporting documentation, including the results of the pre-audit performed by the organisation, are in compliance with the applicable requirements.
- (c) The audit should focus on the following areas:
  - (1) the detailed management structure, including the names and qualifications of personnel required by points <a href="CAMO.A.305(a)">CAMO.A.305(a)</a> and (b)(2), and the adequacy of the organisation and its management structure;
  - (2) the personnel:
    - (i) the adequacy of the number of staff, and of their qualifications and experience with regard to the intended terms of approval and the associated privileges;
    - (ii) the validity of licences and/or authorisations, as applicable;
  - (3) the processes for safety risk management and compliance monitoring;
  - (4) the facilities and their adequacy regarding the organisation's scope of work;
  - (5) the documentation based on which the certificate should be granted (i.e. the documentation required by Part-CAMO):

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- (i) verification that the procedures specified in the CAME comply with the applicable requirements; and
- (ii) verification that the accountable manager has signed the exposition statement.
- (d) If an application for an organisation certificate is refused, the applicant should be informed of the right of appeal that exists under national law.

## AMC1 CAMO.B.310(a) Initial certification procedure

ED Decision 2020/002/R

#### **AUDIT**

- (a) The competent authority should determine how and by whom the audit shall be conducted. For example, it will be necessary to determine whether one large team audit, a short series of small team audits, or a long series of single inspector audits is most appropriate for the particular situation.
- (b) The audit may be structured so as to verify the organisation's processes related to a product line. For example, in the case of an organisation with Airbus A320 and Airbus A310 ratings, the audit should concentrate on the continuing airworthiness management processes of one type only for a full compliance check, and depending upon the result, the second type may only require a sample check against those aspects that were seen to be weak regarding compliance for the first type.
- (c) In determining the scope of the audit and which activities of the organisation will be assessed during the audit, the privileges of the approved organisation should be taken into account, e.g. their approval to carry out airworthiness reviews.
- (d) The competent authority auditing inspector should always ensure that he or she is accompanied throughout the audit by a senior member of the organisation, who is normally the compliance monitoring manager. The reason for being accompanied is to ensure that the organisation is fully aware of any findings raised during the audit.
- (e) At the end of the audit, the auditing inspector should inform the senior member of the organisation of all the findings that were raised during the audit.

## AMC1 CAMO.B.310(c) Initial certification procedure

ED Decision 2020/002/R

- (a) There may be occasions when the competent authority inspector is unsure about the compliance of some aspects of the applicant's organisation. If this occurs, the inspector should inform the organisation about the possible non-compliance at the time, and about the fact that the situation will be reviewed within the competent authority before a decision is made. If the review concludes that there is no finding, then a verbal confirmation to the organisation should suffice.
- (b) Findings should be recorded on the audit report form, each with a provisional categorisation as a level 1 or 2 finding. Subsequent to the on-site audit that identified the particular findings, the competent authority should review the provisional finding levels, adjusting them if necessary, and should change the categorisation from 'provisional' to 'confirmed'.

## AMC2 CAMO.B.310(c) Initial certification procedure

ED Decision 2020/002/R

- (a) The audit should be recorded using the audit report EASA Form 13-CAMO (<u>Appendix V to AMC2</u> CAMO.B.310(c)).
- (b) A review of the EASA Form 13-CAMO audit report should be carried out by a competent independent person nominated by the competent authority. The review should take into account the relevant points of Part-CAMO, the categorisation of the finding levels and the closure action that was taken. A satisfactory review of the audit report should be indicated by a signature on EASA Form 13-CAMO.
- (c) The audit reports should include the date when each finding was closed, together with a reference to the competent authority report or letter that confirmed the closure.

## AMC1 CAMO.B.310(d) Initial certification procedure

ED Decision 2020/002/R

All findings should be confirmed in writing to the applicant organisation within 2 weeks of the on-site audit.

# GM1 CAMO.B.310(e)(1); CAMO.B.330 Initial certification procedure and changes

ED Decision 2020/002/R

#### **TERMS OF APPROVAL**

The table shown for the terms of approval in <u>EASA Form 14</u> includes a field designated as 'Aircraft type/series/group'.

The intention is to give maximum flexibility to the competent authority to customise the approval to a particular organisation.

Possible alternatives to be included in this field are the following:

- A specific type designation that is part of a type certificate, such as Airbus 340-211 or Cessna 172R.
- A type rating (or series) as listed in Part-66 Appendix I to AMC, which may be further subdivided, such as Boeing 737-600/700/800, Boeing 737-600, Cessna 172 Series.
- An aircraft group such as, for example, 'all sailplanes and powered sailplanes' or 'Cessna single piston engine aircraft' or 'Group 3 aircraft' (as defined in 66.A.5) or 'aircraft below 2 730 kg MTOM'.

Reference to the engine type installed in the aircraft may or may not be included, as necessary.

It is important to note that the terms of approval defined in EASA Form 14 is further limited to the scope of work defined in the CAME. It is this scope of work in the CAME which ultimately defines the approval of the organisation. As a consequence, it is possible for a competent authority to endorse in EASA Form 14, for example, a scope of work for Group 3 aircraft while the detailed scope of work defined in the CAME does not include all Group 3 aircraft.

Nevertheless, in all cases, the competent authority should be satisfied that the organisation has the capability of managing the types/groups/series endorsed in EASA Form 14.

Since the activities linked to continuing airworthiness management are mainly process-oriented rather than facility/tooling-oriented, changes to the detailed scope of work defined in the CAME (either directly or through a capability list), within the limits already included in <u>EASA Form 14</u>, may be considered as not affecting the approval and not subject to point <u>CAMO.A.130(a)</u>. As a consequence, for these changes, the competent authority may allow the use by the CAMO of the procedure referred to in point <u>CAMO.A.130(c)</u> for changes not requiring prior approval.

Since, as mentioned above, the competent authority should make sure that the organisation is capable of managing the requested category as a whole, it is not reasonable to grant a full Group 3 approval based on an intended scope of work which is limited to, for example, a Cessna 172 aircraft. However, it may be reasonable to grant such full Group 3 approval, after showing appropriate capability, for an intended scope of work covering several aircraft types or series of different complexity and which are representative of the full Group 3. In such case, if later on changes need to be introduced in the detailed scope of work detailed in the CAME to include new aircraft types (within Group 3), this may be done by the procedure referred to in point <a href="CAMO.A.130">CAMO.A.130</a>(c).

## **Special case for ELA1 aircraft:**

In order to promote standardisation, for this category of aircraft the following approach is recommended:

- Possible ratings to be endorsed in <u>EASA Form 14</u>:
  - ELA1 sailplanes;
  - ELA1 powered sailplanes and ELA1 aeroplanes;
  - ELA1 balloons;
  - ELA1 airships.
- Before endorsing any of those ratings (for example, ELA1 sailplanes) in <u>EASA Form 14</u>, the competent authority should audit that the organisation is capable of managing at least one aircraft type (for example, one type of sailplanes within the ELA1 category), including the availability of the necessary facilities, data, maintenance programmes, and staff.

## AMC1 CAMO.B.310(e)(2) Initial certification procedure

ED Decision 2020/002/R

- (a) The competent authority should indicate its approval of the CAME in writing.
- (b) Contracts for subcontracting continuing airworthiness management tasks by CAMOs should be included in the continuing airworthiness organisation exposition. The competent authorities should verify that the standards set forth in <a href="AMC1 CAMO.A.125(d)(3)">AMC1 CAMO.A.125(d)(3)</a> have been met when approving the exposition.
- (c) The competent authority while investigating the acceptability of the proposed subcontracted continuing airworthiness management tasks arrangements should take into account, in the subcontracted organisation, all other such contracts that are in place irrespective of state of registry in terms of sufficiency of resources, expertise, management structure, facilities and liaison between the CAMO, the subcontracted organisation and, where applicable, the contracted maintenance organisation(s).
- (d) Approval of the CAME constitutes formal acceptance of personnel specified in points CAMO.A.305(a), CAMO.A.305(b)(2), CAMO.A.305(e) and CAMO.A.305(f).

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SECTION B — AUTHORITY

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- (e) The competent authority may reject an accountable manager if there is clear evidence that this person previously held a senior position in any organisation that was approved in accordance with Regulation (EU) 2018/1139 and its delegated and implementing acts, and that the person abused that position by not complying with the applicable requirements.
- (e) For CAT, commercial specialised operations and commercial ATO or commercial DTO operations, the initial approval of the aircraft technical log system required by M.A.306(b) and M.B.305 may be done by approving the CAME in which this system should be described.

## CAMO.B.330 Changes

Regulation (EU) 2019/1383

- (a) Upon receiving an application for a change that requires prior approval, the competent authority shall verify the organisation's compliance with the applicable requirements before issuing the approval.
- (b) The competent authority shall establish the conditions under which the organisation may operate during the change unless the competent authority determines that the organisation's certificate needs to be suspended.
- (c) When satisfied that the organisation complies with the applicable requirements, the competent authority shall approve the change.
- (d) Without prejudice to any additional enforcement measures, when the organisation implements changes requiring prior approval without having received competent authority approval pursuant to point (c), the competent authority shall suspend, limit or revoke the organisation's certificate.
- (e) For changes not requiring prior approval, the competent authority shall assess the information provided in the notification sent by the organisation in accordance with point (c) of point <a href="CAMO.A.130">CAMO.A.130</a> to verify compliance with the applicable requirements. In case of any non-compliance, the competent authority shall:
  - (1) notify the organisation about the non-compliance and request further changes;
  - (2) in case of level 1 or level 2 findings, act in accordance with point <u>CAMO.B.350</u>.

## AMC1 CAMO.B.330 Changes

ED Decision 2020/002/R

- (a) The competent authority should have adequate control over any changes to the personnel specified in points <u>CAMO.A.305(a)</u>, (b)(2), (e) and (f). Such changes in personnel will require an amendment to the exposition.
- (b) When an organisation submits the name of a new nominee for any of the personnel specified in points <a href="CAMO.A.305(a">CAMO.A.305(a</a>), (b)(2) and (e), the competent authority may require the organisation to produce a written résumé of the proposed person's qualifications. The competent authority should reserve the right to interview the nominee or call for additional evidence of his or her suitability before deciding upon him or her being acceptable.
- (c) For changes requiring prior approval, in order to verify the organisation's compliance with the applicable requirements, the competent authority should conduct an audit of the organisation, limited to the extent of the changes, and determine whether a risk assessment needs to be provided by the organisation.

Annex Vc (Part-CAMO)

SECTION B — AUTHORITY

REQUIREMENTS

- (d) If a risk assessment is deemed to be necessary, the competent authority should inform the organisation accordingly.
- (e) If the competent authority considers that it is necessary to review the risk assessment performed by the organisation, it should request the organisation to provide it, and assess its result.
- (f) If required, the audit may include interviews and inspections carried out at the organisation's facilities.
- (g) The applicable part(s) of EASA Form 13-CAMO should be used to document the assessment of any changes to the Part-CAMO approval.

## **GM1 CAMO.B.330 Changes**

ED Decision 2020/002/R

#### **CHANGE OF THE NAME OF THE ORGANISATION**

- (a) On receipt of the application and the amendment to the relevant parts of the CAME, the competent authority should reissue the certificate.
- (b) A change of only the name does not require the competent authority to audit the organisation unless there is evidence that other aspects of the organisation have changed.

## **CAMO.B.350 Findings and corrective actions**

Regulation (EU) 2019/1383

- (a) The competent authority shall have a system to analyse findings for their safety significance.
- (b) A level 1 finding shall be issued by the competent authority when any significant non-compliance is detected with the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts, with the organisation's procedures and manuals, or with the terms of an approval or certificate which lowers safety or seriously endangers flight safety.

The level 1 findings shall include:

- (1) failure to give the competent authority access to the organisation's facilities as defined in point <u>CAMO.A.140</u> during normal operating hours and after two written requests;
- (2) obtaining or maintaining the validity of the organisation certificate by falsification of submitted documentary evidence;
- (3) evidence of malpractice or fraudulent use of the organisation certificate;
- (4) the lack of an accountable manager.
- (c) A level 2 finding shall be issued by the competent authority when any non-compliance is detected with the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts, with the organisation's procedures and manuals, or with the terms of an approval or certificate which may lower safety or endanger flight safety.
- (d) When a finding is detected during oversight or by any other means, the competent authority shall, without prejudice to any additional action required by Regulation (EU) 2018/1139 and its delegated and implementing acts, communicate the finding to the organisation in writing, and request corrective action to address the non-compliance(s) identified. Where a finding directly relates to an aircraft, the competent authority shall inform the State in which the aircraft is registered.

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- (1) In the case of level 1 findings, the competent authority shall take immediate and appropriate action to prohibit or limit activities and, if appropriate, it shall take action to revoke the certificate or to limit or suspend it in whole or in part, depending upon the extent of the level 1 finding until successful corrective action has been taken by the organisation.
- (2) In the case of level 2 findings, the competent authority shall:
  - (i) grant the organisation a corrective action implementation period appropriate to the nature of the finding, that in any case initially shall not be more than 3 months. It shall commence from the date of the written communication of the finding to the organisation, requesting corrective action to address the non-compliance identified. At the end of this period, and subject to the nature of the finding and past safety performance of the organisation, the competent authority may extend the 3-month period subject to a satisfactory corrective action plan agreed by the competent authority;
  - (ii) assess the corrective action and implementation plan proposed by the organisation, and if the assessment concludes that they are sufficient to address the non-compliance(s), accept these.
- (3) Where an organisation fails to submit an acceptable corrective action plan, or to perform the corrective action within the time period accepted or extended by the competent authority, the finding shall be raised to a level 1 finding and action taken as laid down in point (d)(1).
- (4) The competent authority shall record all findings it has raised or that have been communicated to it in accordance with point (e) and, where applicable, the enforcement measures it has applied, as well as all corrective actions and date of action closure for findings.
- (e) Without prejudice to any additional enforcement measures, when the authority of a Member State acting under the provisions of point (d) of point <u>CAMO.B.300</u> identifies any noncompliance with the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts by an organisation certified by the competent authority of another Member State or the Agency, it shall inform that competent authority and provide an indication of the level of finding.

## CAMO.B.355 Suspension, limitation and revocation

Regulation (EU) 2019/1383

The competent authority shall:

- (a) suspend a certificate on reasonable grounds in the case of potential safety threat;
- (b) suspend, revoke or limit a certificate pursuant to point <a href="CAMO.B.350">CAMO.B.350</a>;
- (c) suspend certificate in case the competent authority's inspectors are unable over a period of 24 months to discharge their oversight responsibilities through on-site audit(s) due to the security situation in the State where the facilities are located.

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SECTION B — AUTHORITY

REQUIREMENTS

## AMC1 CAMO.B.355(c) Suspension, limitation and revocation

ED Decision 2020/002/R

#### INFORMATION ON THE SECURITY SITUATION

- (a) The European Commission Security Directorate generally advises against any non-essential travel to a country where hostile conditions, or a combination of the following conditions, reduce the level of security, and pose a high level of threat to personnel, as follows:
  - (1) international or internal armed conflict with frequent armed confrontation taking place, numerous casualties, and/or serious damages to infrastructures;
  - (2) a situation that could lead to war, or characterised by high internal or external tension that could escalate into instability in the short term; very poorly functioning institutions;
  - (3) relatively frequent terrorist attacks due to the presence of active terrorist groups, either domestic or transnational, and state authorities that are unable to ensure a satisfactory level of security; and
  - (4) frequent criminal violence that also targets non-nationals. State authorities have a limited ability to counter criminal activities and ensure security.
- (b) Countries where the above conditions apply should not be considered to be compatible with the performance of on-site audits by the competent authority.

## **APPENDICES TO ANNEX Vc (PART-CAMO)**

# Appendix I — Continuing Airworthiness Management Organisation Certificate – EASA Form 14

Regulation (EU) 2019/1383

[MEMBER STATE (\*)]
A Member of the European Union (\*\*)

#### **CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION CERTIFICATE**

Reference: [MEMBER STATE CODE \*].CAMO.XXXX (Ref.: AOC XX.XXXX)

Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency and to Commission Regulation (EU) No 1321/2014 and subject to the conditions specified below, the [COMPETENT AUTHORITY OF THE MEMBER STATE\*] hereby certifies:

#### [COMPANY NAME AND ADDRESS]

as a continuing airworthiness management organisation in compliance with Section A of Annex Vc (Part-CAMO) to Commission Regulation (EU) No 1321/2014.

#### **CONDITIONS:**

- 1. This certificate is limited to the scope specified in the scope of work section of the approved continuing airworthiness management exposition (CAME) as referred to in Section A of Annex Vc (Part-CAMO) to Commission Regulation (EU) No 1321/2014.
- 2. This certificate requires compliance with the procedures specified in the CAME approved in accordance with Annex Vc (Part-CAMO) to Commission Regulation (EU) No 1321/2014.
- 3. This certificate is valid whilst the approved continuing airworthiness management organisation remains in compliance with Annex I (Part-M), Annex Vb (Part-ML) and Annex Vc (Part-CAMO) to Commission Regulation (EU) No 1321/2014.
- 4. Where the continuing airworthiness management organisation subcontracts under its management system the service of an (several) organisation(s), this certificate remains valid subject to such organisation(s) fulfilling the applicable contractual obligations.
- 5. Subject to compliance with the conditions 1 to 4 above, this certificate shall remain valid for an unlimited duration unless the certificate has previously been surrendered superseded, suspended or revoked.

If this form is also used for air operator certificate (AOC) holders (air carriers licensed in accordance with Regulation (EC) No 1008/2008), the AOC number shall be added to the reference, in addition to the standard number, and condition No 5 shall be replaced with the following additional conditions:

- 6. This certificate does not constitute an authorisation to operate the types of aircraft referred to in condition No 1. The authorisation to operate the aircraft is the AOC.
- 7. Termination, suspension or revocation of the AOC of a air carrier licensed in accordance with Regulation (EC) No 1008/2008 automatically invalidates the present certificate in relation to the aircraft registrations specified in the AOC, unless otherwise explicitly sated by the competent authority.
- 8. Subject to compliance with the previous conditions, this certificate shall remain valid for an unlimited duration unless the certificate has previously been surrendered, superseded, suspended or revoked.

Date of original issue:	
Signed:	
Date of this revision:	Revision No:
For the competent authority: [COMPETENT AUTHORITY OF $^{\rm T}$ Page of	THE MEMBER STATE (*)]

(\*) or 'EASA', if EASA is the competent authority.

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APPENDICES TO ANNEX Vc (Part-CAMO)

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# CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION TERMS OF APPROVAL

Reference: [MEMBER STATE CODE \*].CAMO.XXXX (ref. AOC XX.XXXX)

Organisation: [COMPANY NAME AND ADDRESS]

Aircraft type/series/group	Airworthiness	Permits to fly	Subcontracted
	review authorised	authorised	organisations
	[YES/NO]	[YES/NO]	
	***	***	
	[YES/NO]	[YES/NO]	
	***	***	
	[YES/NO]	[YES/NO]	
***	***		
	[YES/NO]	[YES/NO]	
	***	***	

The terms of approval are limited to the scope of work contained in the approved CAME section
CAME reference:
Date of original issue:
Signed:
Date of this revision: Revision No:
For the Competent Authority: [COMPETENT AUTHORITY OF THE MEMBER STATE *]

#### EASA Form 14 Issue 4

- (\*) or 'EASA', if EASA is the competent authority
- (\*\*) delete for non-EU Member State or EASA
- (\*\*\*) delete as appropriate if the organisation is not approved.

# AMC1 to Appendix I to Part-CAMO — Continuing Airworthiness Management Organisation Certificate

ED Decision 2020/002/R

## **EASA FORM 14**

The following fields on page 2 'CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION - TERMS OF APPROVAL' of the <u>EASA Form 14</u> certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the continuing airworthiness management exposition.
- Date of this revision: It refers to the date of the last revision of the continuing airworthiness management exposition affecting the content of the certificate. Changes to the continuing



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airworthiness management exposition which do not affect the content of the certificate do not require the reissuance of the certificate.

Revision No: It refers to the revision number of the last revision of the continuing airworthiness
management exposition affecting the content of the certificate. Changes to the continuing
airworthiness management exposition which do not affect the content of the certificate do not
require the reissuance of the certificate.



# **APPENDICES TO AMC AND GM TO ANNEX Vc (PART-CAMO)**

## Appendix I to AMC1 CAMO.A.115 — EASA Form 2

ED Decision 2020/002/R

The provisions of Appendix IX to AMC M.A.602 and AMC M.A.702 EASA Form 2 apply.

# Appendix II to AMC1 CAMO.A.125(d)(3) — Subcontracting of continuing airworthiness management tasks

ED Decision 2021/009/R

## 1. Subcontracted continuing airworthiness management tasks

- 1.1. To actively control the standards of the subcontracted organisation, the CAMO should employ a person or group of persons who are trained and competent in the disciplines associated with Part-CAMO. As such, they are responsible for determining what maintenance is required, when it has to be performed, by whom and to what standard in order to ensure the continuing airworthiness of the aircraft to be operated.
- 1.2. The CAMO should conduct a pre-subcontract audit to establish that the organisation to be subcontracted can achieve the standards required by Part-CAMO in connection with the activities to be subcontracted.
- 1.3. The CAMO should ensure that the organisation to be subcontracted has sufficient and qualified personnel who are trained and competent in the functions to be subcontracted. In assessing the adequacy of personnel resources, the CAMO should consider the particular needs of those activities that are to be subcontracted, while taking into account the subcontracted organisations existing commitments.
- 1.4. To be appropriately approved to subcontract continuing airworthiness management tasks, the CAMO should have procedures for the management control of these arrangements. The CAME should contain relevant procedures to reflect its control of those arrangements made with the subcontracted organisation.
- 1.5. Subcontracted continuing airworthiness management tasks should be addressed in a contract between the CAMO and the subcontracted organisation. The contract should also specify that the subcontracted organisation is responsible for informing the CAMO that is in turn responsible for notifying the respective competent authority, of any subsequent changes that affect their ability to fulfil the contract.
- 1.6. The subcontracted organisation should use procedures which set out the manner of fulfilling its responsibilities with regard to the subcontracted activities. Such procedures may be developed by either the subcontracted organisation or the CAMO.
- 1.7. Where the subcontracted organisation develops its own procedures, they should be compatible with the CAME and the terms of the contract. These should be accepted by the competent authority as extended procedures of the CAMO and as such should be cross-referenced in the CAME. One current copy of the subcontracted organisation's relevant procedures should be kept by the CAMO and should be accessible to the competent authority when needed.
  - Note: Should any conflict arise between the subcontracted organisation's procedures and those of the CAMO, then the policy and procedures of the CAME will prevail.
- 1.8. The contract should also specify that the subcontracted organisation's procedures may only be amended with the agreement of the CAMO. The CAMO should ensure that these amendments are compatible with its CAME and comply with Part-CAMO.
  - The CAMO should nominate the person responsible for continued monitoring and acceptance of the subcontracted organisation's procedures and their amendments. The controls used to fulfil this function should be clearly set out in the amendment section of the CAME detailing the level of CAMO involvement.

Annex Vc (Part-CAMO)

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ANNEX Vc (Part-CAMO)

- 1.9. Whenever any elements of the continuing airworthiness management tasks are subcontracted, the CAMO personnel should have access to all relevant data in order to fulfil their responsibilities.
  - Note: The CAMO retains the authority to override, whenever necessary for the continuing airworthiness of their aircraft, any recommendation of the subcontracted organisation.
- 1.10. The CAMO should ensure that the subcontracted organisation continues to have qualified technical expertise and sufficient resources to perform the subcontracted tasks while complying with the relevant procedures. Failure to do so may invalidate the CAMO approval.
- 1.11. The contract should provide for competent authority monitoring.
- 1.12. The contract should address the respective responsibilities to ensure that any findings arising from the competent authority monitoring will be closed to the satisfaction of the competent authority.

## 2. Accomplishment

This paragraph describes the topics which may be applicable to such subcontracting arrangements.

## 2.1. Scope of work

The type of aircraft and their registrations, engine types and/or components subject to the continuing airworthiness management tasks contract should be specified.

2.2. Maintenance programme development and amendment

The CAMO may subcontract the preparation of the draft maintenance programme and any subsequent amendments. However, the CAMO remains responsible for assessing that the draft proposals meet its needs and for obtaining competent authority approval, where applicable; the relevant procedures should specify these responsibilities. The contract should also stipulate that any data necessary to substantiate the approval of the initial programme or an amendment to this programme should be provided for CAMO agreement and/or competent authority upon request.

2.3. Maintenance programme effectiveness and reliability

The CAMO should have a system in place to monitor and assess the effectiveness of the maintenance programme based on maintenance and operational experience. The collection of data and initial assessment may be made by the subcontracted organisation; the required actions are to be endorsed by the CAMO.

Where reliability monitoring is used to establish the effectiveness of the maintenance programme, this may be provided by the subcontracted organisation and should be specified in the relevant procedures. Reference should be made to the approved maintenance and reliability programme. Participation of the CAMO's personnel in reliability meetings with the subcontracted organisation should also be specified.

When providing reliability data, the subcontracted organisation is limited to working with primary data/documents provided by the CAMO or data provided by the CAMO's contracted maintenance organisation(s) from which the reports are derived. The pooling of reliability data is permitted if it is acceptable to the competent authority.

2.4. Permitted variations to the maintenance programme

The reasons and justification for any proposed variation to scheduled maintenance may be prepared by the subcontracted organisation. Acceptance of the proposed variation should be

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ANNEX Vc (Part-CAMO)

granted by the CAMO. The means by which the CAMO acceptance is given should be specified in the relevant procedures. When outside the limits set out in the maintenance programme, the CAMO is required to obtain approval by the competent authority.

## 2.5. Scheduled maintenance

Where the subcontracted organisation plans and defines maintenance checks or inspections in accordance with the approved maintenance programme, the required liaison with the CAMO, including feedback, should be defined.

The planning control and documentation should be specified in the appropriate supporting procedures. These procedures should typically set out the CAMO's level of involvement in each type of check. This will normally involve the CAMO assessing and agreeing to a work specification on a case-by-case basis for base maintenance checks. For routine line maintenance checks, this may be controlled on a day-to-day basis by the subcontracted organisation subject to appropriate liaison and CAMO controls to ensure timely compliance. This may typically include but is not necessarily limited to:

- applicable work package, including work cards;
- scheduled component removal list;
- ADs to be incorporated;
- modifications to be incorporated.

The associated procedures should ensure that the CAMO is informed in a timely manner of the accomplishment of such tasks.

## 2.6. Compliance monitoring and risk assessment

The CAMO's management system should monitor the adequacy of the subcontracted continuing airworthiness management task performance for compliance with the contract and with Part-CAMO and assess the risks entailed by such subcontracting. The terms of the contract should therefore include a provision allowing the CAMO to perform a surveillance (including audits and assessments) of the subcontracted organisation. The aim of the surveillance is primarily to investigate and judge the effectiveness of those subcontracted activities and thereby to ensure compliance with Part-CAMO and the contract and mitigate related safety risks. Audit and assessment reports may be subject to review when requested by the competent authority.

## 2.7. Access to the competent authority

The contract should specify that the subcontracted organisation should always grant access to the competent authority.

#### 2.8. Maintenance data

The maintenance data used for the purpose of the contract should be specified, together with those responsible for providing such documentation and the competent authority responsible for the acceptance/approval of such data, when applicable. The CAMO should ensure that such data, including revisions, is readily available to the CAMO personnel and to those in the subcontracted organisation who may be required to assess such data. The CAMO should establish a 'fast-track' means to ensure that urgent data is transmitted to the subcontractor in a timely manner. Maintenance data may include but is not necessarily limited to:

- the maintenance programme,
- airworthiness directives,

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- service bulletins,
- repairs/modification data,
- aircraft maintenance manual,
- engine overhaul manual,
- aircraft illustrated parts catalogue (IPC),
- wiring diagrams,
- troubleshooting manual.

#### 2.8. Maintenance data

The maintenance data used for the purpose of the contract should be specified, together with those responsible for providing such documentation and the competent authority responsible for the acceptance/approval of such data, when applicable. The CAMO should ensure that such data, including revisions, is readily available to the CAMO personnel and to those in the subcontracted organisation who may be required to assess such data. The CAMO should establish a 'fast-track' means to ensure that urgent data is transmitted to the subcontractor in a timely manner. Maintenance data is defined in M.A.401(b) or ML.A.401(b).

[applicable from 18 May 2022]

#### 2.9. Airworthiness directives (ADs)

While the various aspects of AD assessment, planning and follow-up may be accomplished by the subcontracted organisation, AD embodiment is performed by a maintenance organisation. The CAMO is responsible for ensuring timely embodiment of the applicable ADs and is to be provided with notification of compliance. It, therefore, follows that the CAMO should have clear policies and procedures on AD embodiment supported by defined procedures which will ensure that the CAMO agrees to the proposed means of compliance.

The relevant procedures should specify:

- what information (e.g. AD publications, continuing airworthiness records, flight hours/cycles, etc.) the subcontracted organisation needs from the CAMO;
- what information (e.g. AD planning listing, detailed engineering order, etc.) the CAMO needs from the subcontracted organisation in order to ensure timely compliance with the ADs.

To fulfil the above responsibility, the CAMO should ensure that it receives current mandatory continued airworthiness information for the aircraft and equipment it is managing.

## 2.10. Service bulletin (SB) modifications

The subcontracted organisation may be required to review and make recommendations on the embodiment of an SB and other associated non-mandatory material based on a clear policy established by the CAMO. This should be specified in the contract.

2.11. Mandatory life limitation or scheduled maintenance controls and component control/removal forecast

Where the subcontracted organisation performs planning activities, it should be specified that the organisation should receive the current flight cycles, flight hours, landings and/or calendar controlled details, as applicable, at a frequency to be specified in the contract. The frequency should be such that it allows the organisation to properly perform the subcontracted planning

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functions. It, therefore, follows that there will need to be adequate liaison between the CAMO, the contracted maintenance organisation(s) and the subcontracted organisation. Additionally, the contract should specify how the CAMO will be in possession of all current flight cycles, flight hours, etc., so that it may assure the timely accomplishment of the required maintenance.

#### 2.12. Engine health monitoring

If the CAMO subcontracts the on-wing engine health monitoring, the subcontracted organisation should receive all the relevant information to perform this task, including any parameter reading deemed necessary to be supplied by the CAMO for this control. The contract should also specify what kind of feedback information (such as engine limitation, appropriate technical advice, etc.) the organisation should provide to the CAMO.

## 2.13. Defect control

Where the CAMO has subcontracted the day-to-day control of technical log deferred defects, this should be specified in the contract and should be adequately described in the appropriate procedures. The operator's minimum equipment list (MEL)/configuration deviation list (CDL) provides the basis for establishing which defects may be deferred and the associated limits. The procedures should also define the responsibilities and actions to be taken for defects such as aircraft on ground (AOG) situations, repetitive defects, and damage beyond the type certificate holder's limits.

For all other defects identified during maintenance, the information should be brought to the attention of the CAMO which, depending upon the procedural authority granted by the competent authority, may determine that some defects can be deferred. Therefore, adequate liaison between the CAMO, its subcontracted organisation and contracted maintenance organisation should be ensured.

The subcontracted organisation should make a positive assessment of potential deferred defects and consider the potential hazards arising from the cumulative effect of any combination of defects. The subcontracted organisations should liaise with the CAMO to get its agreement following this assessment.

Deferment of MEL/CDL allowable defects can be accomplished by a contracted maintenance organisation in compliance with the relevant technical log procedures, subject to the acceptance by the aircraft commander.

## 2.14. Occurrence reporting

All incidents and safety occurrences should be collected, and those that meet the reporting criteria should be reported as required by point <u>CAMO.A.160</u> in accordance with a procedure established by the CAMO (see <u>GM1 CAMO.A.205</u>).

## 2.15. Continuing airworthiness records

They may be maintained and kept by the subcontracted organisation on behalf of the CAMO, which remains the owner of these documents. However, the CAMO should be provided with the current status of AD compliance and life-limited parts and time-controlled components in accordance with the agreed procedures. The CAMO should also be granted unrestricted and timely access to the original records as and when needed. Online access to the appropriate information systems is acceptable.

The record-keeping requirements of point <u>CAMO.A.220</u> should be met. Access to the records by duly authorised members of the competent authority should be granted upon request.

## 2.16. Maintenance check flight (MCF) procedures

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MCFs are performed under the control of the operator in coordination with the CAMO. MCF requirements from the subcontracted organisation or contracted maintenance organisation should be agreed by the operator/CAMO.

- 2.17. Communication between the CAMO and the subcontracted organisation
  - 2.17.1. In order to fulfil its airworthiness responsibility, the CAMO needs to receive all the relevant reports and relevant maintenance data. The contract should specify what information should be provided and when.
  - 2.17.2. Meetings provide one important cornerstone whereby the CAMO can fulfil part of its responsibility for ensuring the airworthiness of the operated aircraft. They should be used to establish good communication between the CAMO, the subcontracted organisation and the contracted maintenance organisation. The terms of the contract should include, whenever appropriate, the provision for a certain number of meetings to be held between the involved parties. Details of the types of liaison meetings and associated terms of reference of each meeting should be documented. The meetings may include but are not limited to all or a combination of:
    - (a) Contract review

Before the contract is enforced, it is very important that the technical personnel of both parties, that are involved in the fulfilment of the contract, meet in order to be sure that every point leads to a common understanding of the duties of both parties.

(b) Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed are commonly agreed.

(c) Technical meeting

Scheduled meetings should be organised in order to review on a regular basis and agree on actions on technical matters such as ADs, SBs, future modifications, major defects found during shop visit, reliability, etc.

(d) Compliance and performance meeting

Compliance and performance meetings should be organised in order to examine matters raised by the CAMO's surveillance and the competent authority's oversight activity and to agree on necessary preventive, corrective and risk mitigation actions.

(e) Reliability meeting

When a reliability programme exists, the contract should specify the involvement of the CAMO and of the subcontracted organisation in that programme, including their participation in reliability meetings. Provision to enable competent authority participation in the periodical reliability meetings should also be made.

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## Appendix III to AMC4 CAMO.A.305(g) — Fuel Tank Safety training

ED Decision 2020/002/R

The provisions of Appendix XII to AMC1 M.B.102(c) apply.

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ANNEX Vc (Part-CAMO)

# Appendix IV to AMC1 CAMO.A.315(c) — Contracted maintenance

ED Decision 2020/002/R

#### 1. Maintenance contracts

The following paragraphs are not intended to provide a standard maintenance contract, but to provide a list of the main points that should be addressed, when applicable, in a maintenance contract between the CAMO and the maintenance organisation. The following paragraphs only address technical matters and exclude matters such as costs, delay, warranty, etc.

When maintenance is contracted to more than one maintenance organisation (for example, aircraft base maintenance to X, engine maintenance to Y, and line maintenance to Z1, Z2 and Z3), attention should be paid to the consistency of the different maintenance contracts.

A maintenance contract is not normally intended to provide appropriate detailed work instructions to personnel. Accordingly, there should be established organisational roles and responsibilities, procedures and routines in the CAMO and the maintenance organisation to cover these functions in a satisfactory way such that any person involved is informed about his/her accountabilities, responsibilities and the procedures that apply. These procedures and routines can be included/appended to the CAME and to the maintenance organisation's manual/maintenance organisation exposition (MOE), or can consist in separate procedures. In other words, procedures and routines should reflect the conditions of the contract.

# 2. Aircraft/engine maintenance

The following subparagraphs may be adapted to a maintenance contract that applies to aircraft base maintenance, aircraft line maintenance, and engine maintenance.

Aircraft maintenance also includes the maintenance of the engines and auxiliary power units (APU) while they are installed on the aircraft.

#### 2.1. Scope of work

The type of maintenance to be performed by the maintenance organisation should be specified unambiguously. In case of line and/or base maintenance, the contract should specify the aircraft type and, preferably, should include the aircraft's registrations.

In case of engine maintenance, the contract should specify the engine type.

## 2.2. Locations identified for the performance of maintenance/certificates held

The place(s) where base, line or engine maintenance, as applicable, will be performed should be specified. The certificate held by the maintenance organisation at the place(s) where maintenance will be performed should be referred to in the contract. If necessary, the contract may address the possibility of performing maintenance at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity to support occasional line maintenance.

# 2.3. Subcontracting

The maintenance contract should specify under which conditions the maintenance organisation may subcontract tasks to a third party (regardless if this third party is approved or not). At least, the contract should make reference to M.A.615, CAO.A.095(a)(2) and 145.A.75(b). Additional guidance is provided by the associated AMC and GM. In addition, the CAMO may require the maintenance organisation to obtain the CAMO approval before subcontracting to a third party. Access should be given to the CAMO to any information (especially the compliance monitoring information) about the maintenance organisation's subcontractors involved in the contract. It should, however, be noted that under the CAMO responsibility both the CAMO and its

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competent authority are entitled to be fully informed about subcontracting, although the competent authority will normally only be concerned with aircraft, engine and APU subcontracting.

### 2.4. Maintenance programme

The maintenance programme, under which maintenance has to be performed, has to be specified.

The CAMO should have that maintenance programme approved by its competent authority.

#### 2.5. Monitoring

The terms of the contract should include a provision allowing the organisation to monitor the maintenance organisation in terms of compliance with the applicable requirements. The maintenance contract should specify how the results of such monitoring are taken into account by the maintenance organisation (See also paragraph 2.23. 'Meetings').

## 2.6. Competent authority involvement

The contract should identify the competent authority(ies) responsible for the oversight of the aircraft, the operator, the CAMO, and the maintenance organisation. Additionally, the contract should allow competent authority(ies) access to the maintenance organisation.

#### 2.7. Maintenance data

The contract should specify the maintenance data and any other manual required for the fulfilment of the contract, and how these data and manuals are made available and kept current (regardless if they are provided by the CAMO or by the maintenance organisation).

This may include but is not limited to:

- maintenance programme,
- airworthiness directives,
- repairs/modification data,
- aircraft maintenance manual,
- aircraft illustrated parts catalogue (IPC),
- wiring diagrams,
- troubleshooting manual,
- MEL (normally on board the aircraft),
- operator's manual,
- flight manual,
- engine maintenance manual,
- engine overhaul manual.

#### 2.8. Incoming conditions

The contract should specify in which condition the aircraft should be made available to the maintenance organisation. For extensive maintenance, it may be beneficial that a work scope planning meeting be organised so that the tasks to be performed may be commonly agreed (see also paragraph 2.23 'Meetings').

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APPENDICES TO AMC AND GM to
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#### 2.9. Airworthiness directives and service bulletins/modifications

The contract should specify the information that the CAMO is responsible to provide to the maintenance organisation, such as:

- the status of the ADs including due date and the selected means of compliance, if applicable; and
- status of modifications and the decision to embody a modification or an SB.

In addition, the contract should specify the type of information the CAMO will need in return to complete the control of ADs and modification status.

### 2.10. Hours and cycles control

Hours and cycles control is the responsibility of the CAMO, and the contract should specify how the CAMO should provide the current hours and cycles to the maintenance organisation and whether the maintenance organisation should receive the current flight hours and cycles on a regular basis so that it may update the records for its own planning functions (see also paragraph 2.22 'Exchange of information').

#### 2.11. Life-limited parts and time-controlled components

The control of life-limited parts and time-controlled components is the responsibility of the CAMO. The contract should specify whether the CAMO should provide the status of life-limited parts and time-controlled components to the maintenance organisation, and the information that the approved organisation will have to provide to the CAMO about the removal/installation of the life-limited parts and time-controlled components so that the CAMO may update its records (see also paragraph 2.22 'Exchange of information').

### 2.12. Supply of parts

The contract should specify whether a particular type of material or component is supplied by the CAMO or by the maintenance organisation, which type of component is pooled, etc. The contract should clearly state that it is the maintenance organisation's responsibility to be satisfied that the component in question meets the approved data/standard and to ensure that the aircraft component is in a satisfactory condition for installation. Additional guidance on the acceptance of components is provided in M.A.501, ML.A.501 and 145.A.42.

#### 2.13. Pooled parts at line stations

If applicable, the contract should specify how the subject of pooled parts at line stations should be addressed.

# 2.14. Scheduled maintenance

For planning scheduled maintenance checks, the support documentation to be given to the maintenance organisation should be specified. This may include but is not limited to:

- applicable work package, including work cards;
- scheduled component removal list;
- modifications to be incorporated.

When the maintenance organisation decides, for any reason, to defer a maintenance task, it has to be formally agreed with the CAMO. If the deferment goes beyond an approved limit, please refer to paragraph 2.17 'Deviation from the maintenance schedule'. This should be addressed, where applicable, in the maintenance contract.

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APPENDICES TO AMC AND GM to
ANNEX Vc (Part-CAMO)

### 2.15. Unscheduled maintenance/defect rectification

The contract should specify to which level the maintenance organisation may rectify a defect without reference to the CAMO. It should describe, as a minimum, the management of approval of repairs and the incorporation of repairs. The deferment of any defect rectification should be submitted to the CAMO.

#### 2.16. Deferred tasks

See paragraphs 2.14 and 2.15 above, as well as <a href="145.A.50(e">145.A.50(e</a>), <a href="M.A.801(f">M.A.801(f</a>) and <a href="ML.A.801(f">ML.A.801(f</a>). In addition, for aircraft line and base maintenance, the use of the operator's MEL and the liaison with the CAMO in case of a defect that cannot be rectified at the line station should be addressed.

### 2.17. Deviation from the maintenance schedule

Deviations from the maintenance schedule have to be managed by the CAMO in accordance with the procedures established in the maintenance programme. The contract should specify the support the maintenance organisation may provide to the operator in order to substantiate the deviation request.

#### 2.18. Maintenance check flight (MCF)

If any MCF is required after aircraft maintenance, it should be performed in accordance with the procedures established in the CAME and/or the operator's manual.

#### 2.19. Bench test

The contract should specify the acceptability criterion and whether a representative of the CAMO should witness an engine undergoing test.

## 2.20. Release to service documentation

The release to service has to be performed by the maintenance organisation in accordance with its maintenance organisation procedures. The contract should, however, specify which support forms have to be used (aircraft technical log, maintenance organisation's release format, etc.) and the documentation that the maintenance organisation should provide to the CAMO upon delivery of the aircraft. This may include but is not limited to:

- certificate of release to service,
- flight test report,
- list of modifications embodied,
- list of repairs,
- list of ADs accomplished,
- maintenance visit report,
- test bench report.

#### 2.21. Maintenance record-keeping

The CAMO may subcontract the maintenance organisation to retain some of the maintenance records required by Part-M Subpart C. This means that the CAMO subcontracts under its management system part of its record-keeping tasks and, therefore, the provisions of point CAMO.A.125(d)(3) apply.

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APPENDICES TO AMC AND GM to
ANNEX Vc (Part-CAMO)

### 2.22. Exchange of information

Each time exchange of information between the CAMO and the maintenance organisation is necessary, the contract should specify what information should be provided and when (i.e. in which case or at what frequency), how, by whom and to whom it has to be transmitted.

### 2.23. Meetings

The maintenance contract should include the provision for a certain number of meetings to be held between the CAMO and the maintenance organisation.

### 2.23.1. Contract review

Before the contract is enforced, it is very important that the technical personnel of both parties, that are involved in the fulfilment of the contract, meet in order to be sure that every point leads to a common understanding of the duties of both parties.

## 2.23.2. Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed may be commonly agreed.

#### 2.23.3. Technical meeting

Scheduled meetings may be organised in order to review on a regular basis technical matters such as ADs, SBs, future modifications, major defects found during maintenance check, aircraft and component reliability, etc.

## 2.23.4. Compliance and performance meeting

Compliance and performance meetings may be organised in order to examine matters raised by the CAMO's monitoring and to agree upon necessary preventive and corrective actions.

## 2.23.5. Reliability meeting

When a reliability programme exists, the contract should specify the CAMO's and maintenance organisation's respective involvement in that programme, including the participation in reliability meetings.

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# Appendix V to AMC2 CAMO.B.310(c) — EASA Form 13-CAMO

ED Decision 2020/002/R

PART-CAMO APPROVAL RECOMME	NDATION REPORT EASA FORM 13-CAMO
Part 1: General	
Name of organisation:	
Approval reference:	
Requested approval rating/	
EASA Form 14 or AOC dated*:	
Other approvals held (if app.)	
Address of facility(ies) audited:	
Audit period: from	to
Date(s) of audit(s):	
Audit reference(s):	
Persons interviewed:	
Competent authority inspector(s):	Signature(s):
Competent authority office:	Date of EASA Form 13-CAMO Part 1 completion:
*delete as appropriate	



PART-CAMO APPROVAL RECOMMENDATION REPORT EASA FORM 13-CAMO			)				
Part 2: Part-CAMO Compliance Audit Review							
The five columns may be labelled and used as necessary to record the approval product line or facility, including subcontractor's, reviewed. Against each column used of the following Part-CAMO subparagraphs please either tick ( $$ ) the box if satisfied with compliance, or cross (X) the box if not satisfied with compliance and specify the reference of the Part 4 finding next to the box, or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.							
• • • • • • • • • • • • • • • • • • • •	bject						
CAMO.A.115	Application for an organisation certificate			]	]	][	
CAMO.A.120	Means of compliance				<u> </u>		
<u>CAMO.A.125</u>	Terms of approval and privileges						
<u>CAMO.A.130</u>	Changes to the organisation						
<u>CAMO.A.135</u>	Continued validity						
CAMO.A.140	Access						
CAMO.A.150	Findings						
<u>CAMO.A.155</u>	Immediate reaction to a safety problem			]	] [		
<u>CAMO.A.160</u>	Occurrence reporting						
<u>CAMO.A.200</u>	Management system						
CAMO.A.202	Internal safety reporting scheme						
<u>CAMO.A.205</u>	Contracting and subcontracting						
CAMO.A.215	Facilities						
<u>CAMO.A.220</u>	Record-keeping						
CAMO.A.300	Continuing airworthiness management exposition			<u> </u>	]		
<u>CAMO.A.305</u>	Personnel requirements				<u></u>		
<u>CAMO.A.310</u>	Airworthiness review staff qualifications					][	
<u>CAMO.A.315</u>	Continuing airworthiness management				<u> </u>		
<u>CAMO.A.320</u>	Airworthiness review						
CAMO.A.325	Continuing airworthiness			_	_		



management data	
Competent authority inspector(s):	Signature(s):
Competent authority office:	Date of EASA Form 13-CAMO Part 2 completion:



PART-CAMO APPROVAL RECOMMENDATION REPORT EASA FORM 13-CAMO				
Part 3: Compliance with PART-CAMO continuing airworthiness management exposition (CAME)				
Please either tick ( $$ ) the box if satisfied with compliance; or cross (x) if not satisfied with compliance and specify the reference of the Part 4 finding; or enter N/A where an item is not applicable; or N/R when				
applicable but		=		
PART 0		al organisation, safety policy and objectives		
0.1		Safety policy, objectives and accountable manager statement		
0.2		General information and scope of work		
0.3		Management personnel		
0.4		Management organisation chart		
0.5		Procedure for changes requiring prior approval		
0.6		Procedure for changes not requiring prior approval		
0.7		Alternative means of compliance procedure (AltMoC)		
PART 1	Contin	nuing airworthiness management procedures		
1.1		Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system		
1.1a		MEL application		
1.2		Aircraft maintenance programmes(AMP) – development amendment and approval		
1.3		Continuing airworthiness records, responsibilities, retention, access		
1.4		Accomplishment and control of airworthiness directives		
1.5		Analysis of the effectiveness of the maintenance programme(s)		
1.6		Non-mandatory modification and inspections		
1.7		Repairs and modifications		
1.8		Defect reports		
1.9		Engineering activity		
1.10		Reliability programmes		
1.11		Pre-flight inspections		
1.12		Aircraft weighing		
1.13		Maintenance check flight procedures		
PART 2	Mana	gement system procedures		
2.1		Hazard identification and safety risk management schemes		
2.2		Internal safety reporting and investigations		
2.3		Safety action planning		
2.4		Safety performance monitoring		
2.5		Change management		
2.6		Safety training and promotion		
2.7		Immediate safety action and coordination with operator's emergency response plan (ERP)		

2.8		Compliance monitoring		
2.8.1		Audit plan and audits procedure		
2.8.2		Monitoring of continuing airworthiness management activities		
2.8.3		Monitoring of the effectiveness of the maintenance programme(s)		
2.8.4		Monitoring that all maintenance is carried out by an appropriate maintenance organisation		
2.8.5		Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor Compliance monitoring personnel		
2.9		Control of personnel competency		
2.10		Management system record-keeping		
2.11		Occurrence reporting		
PART 3	Contra	acted Maintenance — management of maintenance		
3.1		Procedures for contracted maintenance		
3.2		Product audit of aircraft		
PART 4	Airworthiness review procedures			
4.1		Airworthiness review staff		
4.2		Documented review of aircraft records		
4.3		Physical survey		
4.4		Additional procedures for recommendations to competent authorities for the import of aircraft		
4.5		Recommendations to competent authorities		
4.6		Issue of ARC		
4.7		Airworthiness review records, responsibilities, retention and access		
4.8		ARC extension		
PART 4B	Permi	t to fly procedures		
4B.1		Conformity with approved flight conditions		
4B.2		Issue of permit to fly under the CAMO privilege		
4B.3		Permit to fly authorised signatories		
4B.4		Interface with the local authority for the flight		
		interface with the local authority for the hight		
4B.5		Permit to fly records, responsibilities, retention and access		
4B.5 PART 5	Suppo	-		
	Suppo	Permit to fly records, responsibilities, retention and access		
PART 5	Suppo	Permit to fly records, responsibilities, retention and access rting documents		



5.4		List of contracted maintenance organisations and list of maintenance contracts as per CAMO.A.300(a)(13)			
5.5		Copy of contracts for subcontracted work (Appendix II to AMC1 CAMO.A.125(d)(3))			
5.6		List of approved maintenance programmes as per <a>CAMO.A.300(a)(12)</a>			
5.7		List of currently approved AltMoC as per point <a href="mailto:CAMO.A.300(a)(13)">CAMO.A.300(a)(13)</a>			
CAME Reference: CAME Amendment:					
Competent authority inspector(s): Signature(s):					
Competent au	ıthority	office: Date of EASA Form 13-CAMO Part 3 completion:			

PA	RT-CAMO APPROVAL RECOMMENDATION REPOR	Т	EASA F	ORM 13-CAM	0
Part 4: Findings	regarding PART-CAMO compliance status				
Each level 1 and	d 2 finding should be recorded whether it has been	rect	ified or not	and should be	identified by
a simple cross r	reference to the Part 2 requirement. All non-rectific	d fir	ndings shoul	d be copied in	writing to the
organisation fo	r the necessary corrective action.				_
Part	Audit reference(s):	L	Corrective action		
2 or 3	Findings	е			
ref.	-	v	Date	Date	Reference
		е	Due	Closed	Reference
		1	Due	Closed	



PART-CAMO APPROVAL RECOMMENDATION REPORT EASA FORM 13-CAMO				
Part 5: PART-CAMO approval or continued approval or change recommendation*				
Name of organisation:				
Approval reference:				
Audit reference(s):				
The following Part-CAMO terms of approval are recommended for this organisation:				
Or, it is recommended that the <b>Part-CAMO</b> terms of approval specified in EASA Form 14 referenced be continued.				
Name of recommending competent authority inspector:				
Signature of recommending competent authority inspector:				
Competent authority office:				
Date of recommendation:				
EASA Form 13-CAMO review: Date:				
*delete as appropriate				



# **ANNEX VD (PART-CAO)**

# **GENERAL**

# **CAO.1** General

Regulation (EU) 2019/1383

For the purpose of this Annex (Part-CAO):

- (1) the competent authority shall be:
  - (a) for organisations having their principal place of business in a Member State, the authority designated by that Member State;
  - (b) for organisations having their principal place of business in a third country, the Agency.
- (2) 'owner' means the person responsible for the continuing airworthiness of the aircraft, including the following persons:
  - (i) the registered owner of the aircraft;
  - (ii) the lessee in the case of a leasing contract;
  - (iii) the operator.



# **SECTION A — ORGANISATION REQUIREMENTS**

# CAO.A.010 Scope

Regulation (FII) 2019/1383

This Annex establishes the requirements to be met by a combined airworthiness organisation (CAO) in order to be issued, upon application, an approval for the maintenance and continuing airworthiness management of aircraft and components for installation thereon, and to continue carrying out those activities, where such aircraft are not classified as complex motor-powered aircraft and are not listed in the air operator certificate of an air carrier licensed in accordance with Regulation (EC) No 1008/2008.

# CAO.A.015 Application

Regulation (EU) 2019/1383

CAOs shall apply for the issuance of, or change to, a CAO approval to the competent authority in a form and manner established by that authority.

# AMC1 CAO.A.015 Application

ED Decision 2020/002/R

An application should be made on an EASA Form 2 (<u>Appendix III to AMC1 CAO.A.015</u>) or an equivalent form that is acceptable to the competent authority.

Draft documents should be submitted at the earliest opportunity so that the assessment of the application can begin. The initial certification or approval of changes cannot take place until the competent authority has received the completed documents.

# CAO.A.017 Means of compliance

Regulation (EU) 2020/270

- (a) Alternative means of compliance to the acceptable means of compliance adopted by the Agency may be used by an organisation to demonstrate compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (b) When an organisation wishes to use alternative means of compliance, it shall, prior to using it, provide the competent authority with a full description of those alternative means of compliance. That description shall include an assessment demonstrating compliance of alternative means of compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts.

The organisation may use those alternative means of compliance subject to prior approval by the competent authority, and upon receipt of the notification as provided for in point CAO.B.017.



# CAO.A.020 Terms of approval

Regulation (EU) 2019/1383

- (a) The CAO shall specify the approved scope of work in its combined airworthiness exposition (CAE), as provided for in point CAO.A.025.
  - (1) For aeroplanes of more than 2 730 kg maximum take-off mass (MTOM) and for helicopters of more than 1 200 kg MTOM or certified for more than 4 occupants, the scope of work shall indicate the particular aircraft types. Changes to this scope of work shall be approved by the competent authority in accordance with point (a) of point CAO.A.105 and point (a) of point CAO.B.065.
  - (2) For complete turbine engines, the scope of work shall indicate the engine manufacturer or group or series or type or the maintenance task(s). Changes to this scope of work shall be approved by the competent authority in accordance with point (a) of point CAO.A.105 and point (a) of point CAO.B.065.
  - (3) A CAO which employs only one person for both planning and carrying out of all maintenance tasks cannot hold privileges for the maintenance of:
    - (a) aeroplanes equipped with a turbine engine (in the case of aircraft-rated organisations);
    - (b) helicopters equipped with a turbine engine or with more than one piston engine (in the case of aircraft-rated organisations);
    - (c) complete piston engines of 450 HP and above (in the case of engine-rated organisations); and
    - (d) complete turbine engines (in the case of engine-rated organisations).
  - (4) For aircraft other than those mentioned in point (1), for components different from complete turbine engines and for non-destructive testing (NDT)-specialised services, the scope of work shall be controlled by the CAO in accordance with the procedure set out in point (a)(11) of point <u>CAO.A.025</u>. For maintenance of components different from complete engines, the scope of work shall be classified in accordance with the following system ratings:
    - (i) C1: air conditioning and pressurisation;
    - (ii) C2: auto flight;
    - (iii) C3: communications and navigation;
    - (iv) C4: doors and hatches;
    - (v) C5: electrical power and lights;
    - (vi) C6: equipment;
    - (vii) C7: engine;
    - (viii) C8: flight controls;
    - (ix) C9: fuel;
    - (x) C10: helicopter and rotors;
    - (xi) C11: helicopter transmission;
    - (xii) C12: hydraulic power;

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- (xiii) C13: indicating and recording system;
- (xiv) C14: landing gear;
- (xv) C15: oxygen;
- (xvi) C16: propellers;
- (xvii) C17: pneumatic and vacuum systems;
- (xviii) C18: protection from ice/rain/fire;
- (xix) C19: windows;
- (xx) C20: structural;
- (xxi) C21: water ballast; and
- (xxii) C22: propulsion augmentation.

Organisations obtaining an approval in accordance with this Annex on the basis of an existing organisation approval issued in accordance with Subpart G or Subpart F of Annex I (Part-M) or Annex II (Part-145) in accordance with paragraph 4 of Article 4, shall include in the scope of work all the necessary details to ensure that the privileges are identical to the ones included in the existing approval.

- (b) The CAO approval shall be issued on the basis of the template set out in Appendix I to this Annex.
- (c) A CAO may fabricate, in conformity with maintenance data, a restricted range of parts for use in the course of undergoing work within its own facilities, as indicated in their CAE.

# GM1 CAO.A.020 Terms of approval

ED Decision 2020/002/R

#### SCOPE OF WORK — AIRCRAFT CLASS

In the combined airworthiness exposition (CAE), the following guidance can be used as a minimum aircraft information to be indicated while specifying the scope of work of an organisation in the aircraft class.

- (a) For aeroplanes above 2 730 kg maximum take-off mass (MTOM):
  - The particular aircraft types included (the use of the list of type ratings contained in the AMC to Part-66 is acceptable).
- (b) For aeroplanes up to 2 730 kg MTOM:
  - The type of propulsion (turbine engine, piston engine)
  - The category (ELA1, ELA2, up to 2 730 kg)
- (c) For helicopters above 1 200 kg MTOM and four occupants:
  - The particular aircraft types included (the use of the list of type ratings contained in Appendix I to AMC to Part-66 is acceptable).
- (d) For helicopters up to 1 200 kg MTOM and four occupants:
  - The type of propulsion (turbine engine, piston engine)

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(e) For sailplanes:

ELA1

- (f) For balloons:
  - Hot-air balloons
  - Gas-balloons
  - Roziere balloons
- (g) For airships:
  - The particular airship type for those which are not classified as ELA2
  - For ELA2 airships, whether it covers hot-air airships or gas-airships

Each category or type of aircraft specified in the scope of work is to be completed with the privileges held (maintenance, continuing airworthiness management, airworthiness review, permit to fly) for that aircraft category or type.

# GM1 CAO.A.020(a) Terms of approval

ED Decision 2020/002/R

#### **EXAMPLES OF CHANGE TO THE SCOPE OF WORK**

In the case of helicopter Bell 206B model (above 1 200 kg MTOM) with regard to the scope of work, adding Bell 206L model to the scope of work would require approval by the competent authority in accordance with point CAO.A.020(a)(1).

If the scope of work contains the Rotax 912 A Series complete piston engine, the combined airworthiness organisation (CAO) shall control changes to the scope of work for additional complete piston engines (e.g. Rotax 914 series or LOM M 332 Series) in accordance with <a href="CAO.A.105(b)">CAO.A.105(b)</a> through an approved procedure.

# AMC1 CAO.A.020(c) Terms of approval

ED Decision 2020/002/R

#### **FABRICATION**

- (a) The agreement by the competent authority for the fabrication of parts by the maintenance organisation should be formalised through the approval of a detailed procedure in the CAE. This AMC contains principles and conditions to be taken into account for the preparation of an acceptable procedure.
- (b) Fabrication, inspection, assembly and test should be clearly within the technical and procedural capability of the approved maintenance organisation.
- (c) The approved data necessary to fabricate the part is that approved by either the Agency, the type certificate (TC) holder, the Part 21 design organisation approval holder, or the supplemental type certificate (STC) holder.
- (d) Items fabricated by an approved maintenance organisation may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components undergoing work within its own facilities. The permission to fabricate does not constitute approval for manufacturing, or for supplying externally and the parts do not qualify for certification on EASA Form 1. This also applies to the bulk transfer or surplus inventory, in

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that locally fabricated parts are physically segregated and excluded from any delivery certification.

- (e) Fabrication of parts, modification kits, etc. for onward supply and/or sale may not be conducted under a CAO approval.
- (f) The data specified in point (c) may include repair procedures involving the fabrication of parts. Where the data on such parts is sufficient to facilitate fabrication, the parts may be fabricated by an approved maintenance organisation. Care should be taken to ensure that the data includes details on part numbering, dimensions, materials, processes, and any special manufacturing techniques, special raw material specification or/and incoming inspection requirement and that the approved organisation has the necessary capability. That capability should be defined within the CAE. Where special processes or inspection procedures are defined in the approved data, which are not available at the approved maintenance organisation, that organisation cannot fabricate the part unless the TC/STC holder gives an approved alternative.
- (g) Examples of fabrication under the scope of a CAO approval can include but are not limited to the following:
  - (1) fabrication of bushes, sleeves and shims;
  - (2) fabrication of secondary structural elements and skin panels;
  - (3) fabrication of control cables;
  - (4) fabrication of flexible and rigid pipes;
  - (5) fabrication of electrical cable looms and assemblies; and
  - (6) formed or machined sheet metal panels for repairs.

It is not acceptable to fabricate any item to pattern unless an engineering drawing of the item is produced which includes any necessary fabrication processes and which is accepted to the competent authority.

- (h) Where a TC holder or an approved production organisation is prepared to make available complete data which is not referred to in aircraft manuals or service bulletins, but provides manufacturing drawings for items specified in parts lists, the fabrication of these items is not considered to be within the scope of a CAO approval unless agreed otherwise by the competent authority in accordance with a procedure specified in the CAE.
- (i) Inspection and identification

Any locally fabricated part should be subject to an inspection stage before, separately, and preferably independently from, any inspection of its installation. The inspection should establish full compliance with the relevant manufacturing data, and the part should be unambiguously identified as fit for use by stating conformity to the approved data. Adequate records should be maintained of all such fabrication processes including heat treatment and the final inspections. All parts, except those with inadequate space, should carry a part number which clearly relates them to the manufacturing/inspection data. Additionally to the part number, the approved maintenance organisation's identity should be marked on the part for traceability purposes.



# CAO.A.025 Combined airworthiness exposition

Regulation (EU) 2019/1383

- (a) The CAO shall provide a manual containing at least the following information:
  - (1) a statement signed by the accountable manager confirming that the organisation will at all times work in accordance with the requirements of this Annex and the CAE;
  - (2) the CAE's scope of work;
  - (3) the title(s) and name(s) of the person(s) referred to in points (a) and (b) of point CAO.A.035;
  - (4) an organisation chart showing the chains of responsibility between the person(s) referred to in points (a) and (b) of CAO.A.035;
  - (5) a list of certifying staff with their scope of approval, if such staff exist;
  - (6) a list of staff responsible for the development and approval of aircraft maintenance programmes (AMPs) with their scope of approval, if such staff exist;
  - (7) a list of airworthiness review staff with their scope of approval, if such staff exist;
  - (8) a list of staff responsible for the issuance of permits to fly, if such staff exist;
  - (9) a general description and location of the facilities;
  - (10) procedures specifying how the CAO shall ensure compliance with the requirements of this Annex;
  - (11) the CAE amendment procedure, as provided for in point (b) of point <u>CAO.A.105</u>.
- (b) The initial CAE shall be approved by the competent authority.
- (c) Amendments to the CAE shall be handled in accordance with point CAO.A.105.

# AMC1 CAO.A.025 Combined airworthiness exposition (CAE)

ED Decision 2020/002/R

This AMC provides an outline of the layout of an acceptable CAE.

Chapter	Description	Implementing rule reference				
PART A -	PART A — GENERAL DESCRIPTION					
A.1	Statement by accountable manager	CAO.A.025(a)(1); CAO.A.035(a)				
A.2	General presentation of the organisation	CAO.A.035(a); CAO.A.100(e)				
A.3	Description and location of the facilities	CAO.A.025(a)(9); CAO.A.030				
A.4	Scope of work	CAO.A.020(a); CAO.A.025(a)(2); CAO.A.095(e); Appendix I point (a)				
A.5	Exposition amendments and changes to the organisation	CAO.A.025(a)(11)/(c); CAO.A.105				
A.6	Procedure for alternative means of compliance	CAO.A.017				
A.7	Management personnel	CAO.A.025(a)(3); CAO.A.035(b); CAO.A.100(a)				
A.8	Organisation chart	CAO.A.025(a)(4)				

Chapter	Description	Implementing rule reference
A.9	Manpower resources	CAO.A.035(d)
A.10	List of certifying staff	CAO.A.025(a)(5)
A.11	List of staff responsible for the development and approval of the aircraft maintenance programme (AMP)	CAO.A.025(a)(6)
A.12	List of airworthiness review staff	CAO.A.025(a)(7); CAO.A.045(d)
A.13	List of staff responsible for the issuance of permits to fly	CAO.A.025(a)(8)
PART B —	- GENERAL PROCEDURES	
B.1	Quality (or organisational review) system	CAO.A.100(a)/(b)/(d)/(e)/(f)
B.2	Audit plan (or frequency and content of organisational review)	CAO.A.100(b)/(f)
B.3	Monitoring of maintenance contracts	CAO.A.100(b)(2)
B.4	Qualification, assessment and training of staff	CAO.A.035(c)/(d)/(e)/(f); CAO.A.040(a); CAO.A.045(a)/(b)/(c); CAO.A.060(a)
B.5	One-off certification authorisation	CAO.A.040(b)
B.6	Limited certification authorisation	CAO.A.040(c)
B.7	Subcontracting	CAO.A.095(a)(2)/(b)(3); CAO.A.100(f)
B.8	Maintenance data and continuing airworthiness management data	CAO.A.055(a); CAO.A.080
B.9	Records management and retention	CAO.A.035(e); CAO.A.040(d); CAO.A.045(e); CAO.A.050(b); CAO.A.060(j); CAO.A.075(a)/(b)(9); CAO.A.090; CAO.A.100(c); CAO.A.085
B.10	Carrying out the airworthiness review	CAO.A.085; CAO.A.095(c)
B.11	Conformity with approved flight conditions	CAO.A.095(d)
B.12	Issue of the permit to fly	CAO.A.095(d); CAO.A.045(a)
PART C —	- MAINTENANCE PROCEDURES	
C.1	Maintenance — general	CAO.A.025(10)
C.2	Work order acceptance	CAO.A.055(b)
C.3	Components, equipment, tools and material (supply, acceptance, segregation, storage, calibration, etc.)	CAO.A.050; CAO.A.060(d); CAO.A.030(b)
C.4	Maintenance facility (selection, organisation, cleanliness and environmental limitations)	CAO.A.060(b)/(e)/(f)
C.5	Maintenance accomplishment and maintenance standards	CAO.A.095(a)(1); CAO.A.060(c); Appendix I points (b)/(c)/(d)
C.6	Prevention of maintenance error	CAO.A.060(g)/(i)
C.7	Critical maintenance tasks and error-capturing method	CAO.A.060(h)
C.8	Fabrication	CAO.A.020(c)
C.9	Certifying staff responsibilities and maintenance release	CAO.A.040(a); CAO.A.065; CAO.A.070; CAO.A.095(a)(4)
C.10	Defects arising during maintenance	CAO.A.075(b)(6)
C.11	Maintenance away from approved location	CAO.A.095(a)(3)

Chapter	Description	Implementing rule reference
C.12	Procedure for component maintenance under aircraft or engine rating	Appendix I point (b)/(c)
C.13	Procedure for maintenance on installed engine (or component) under engine (or component) rating	Appendix I point (c)/(d)
C.14	Special procedures (specialised tasks, non-destructive testing (NDT), engine running, etc.)	CAO.A.030(a); Appendix I point (e)
C.15	Issue of airworthiness review certificate (ARC) under maintenance privilege	CAO.A.095(c)(2)
PART D -	- CONTINUING AIRWORTHINESS MANAGEMENT PROCEDURES	
D.1	Continuing airworthiness management — general	CAO.A.025(10); CAO.A.095(b)(1); CAO.A.075(a)/(b)(7)/(b)(9)
D.2	Minimum equipment list (MEL) (and configuration deviation list (CDL)) application	CAO.A.075(a)
D.3	AMP development, control and periodic review	CAO.A.075(a)/(b)(1)/(b)(2); CAO.A.095(b)(2)
D.4	Airworthiness directives and other mandatory airworthiness requirements	CAO.A.075(a)/(b)(5)/(b)(8)
D.5	Modifications and repairs	CAO.A.075(b)(3)
D.6	Pre-flight inspection	CAO.A.075(a)
D.7	Defects	CAO.A.075(b)(6)
D.8	Establishment of contracts and work orders for the maintenance	CAO.A.075(a)/(b)(4)/(b)(7)
D.9	Coordination of maintenance activities	CAO.A.075(b)(8)
D.10	Mass and balance statement	CAO.A.075(a)/(b)(10)
D.11	Issue of ARC or ARC recommendation	CAO.A.095(c)(1)(i)
D.12	ARC extension	CAO.A.095(b)(4)/(c)(1)(ii)
D.13	Maintenance check flights	CAO.A.075(a)
PART E —	SUPPORTING DOCUMENTS	
E.1	Sample documents	
E.2	List of subcontracted organisations	
E.3	List of organisations contracted by the CAO	
E.4	Aircraft technical log system (if applicable)	
E.5	List of the currently approved alternative means of compliance	
E.6	Copy of contracts for subcontracted continuing airworthiness tasks	

# AMC2 CAO.A.025 Combined airworthiness exposition (CAE)

ED Decision 2020/002/R

- (a) Personnel should be familiar with those parts of the CAE that are relevant to their tasks.
- (b) The CAO may use electronic data processing (EDP) for the publication of the CAE. Attention should be paid to the compatibility of the EDP systems with the necessary dissemination, both internally and externally, of the CAE.

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SECTION A — ORGANISATION

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# **CAO.A.030 Facilities**

Regulation (EU) 2019/1383

The CAO shall ensure that all necessary facilities, including adequate office accommodation are provided for it to be able to carry out all the planned work.

In addition, where the scope of approval of the organisation includes maintenance activities, the CAO shall ensure that:

- (a) specialised workshops, hangars and bays provide adequate protection from contamination and the environment;
- (b) secure storage facilities are provided for components, equipment, tools and material, under conditions ensuring that unserviceable components and materials are segregated from all other components, material, equipment and tools, that the manufacturer's instructions for storage are complied with and that access to the storage facilities is restricted to authorised personnel.

# AMC1 CAO.A.030 Facilities

ED Decision 2020/002/R

#### **FACILITIES FOR AN ORGANISATION HOLDING MAINTENANCE PRIVILEGES**

- (a) Where a hangar is not owned by the organisation, it may be necessary to establish proof of tenancy. In addition, sufficiency of hangar space to carry out planned maintenance should be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the AMP. The aircraft hangar visit plan should be updated on a regular basis.
- (b) For balloons and airships, a hangar may not be required where maintenance of the envelope and bottom-end equipment can more appropriately be performed outside, providing all necessary maintenance can be accomplished in accordance with <u>ML.A.402</u>. For complex repairs or component maintenance requiring an EASA Form 1, suitable approved workshops should be provided. The facilities and environmental conditions required for inspection and maintenance should be defined in the CAE.
- (c) Subject to agreement by the competent authority, the organisation may use alternative suitable facilities other than a hangar at the approved location for certain aircraft maintenance tasks, provided that adequate protection from contamination and environment are ensured for the particular work package.
- (d) Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any 12-month period. Aircraft hangar and aircraft component workshop structures should be to a standard that prevents the ingress of rain, hail, ice, snow, wind and dust, etc. Aircraft hangar and aircraft component workshop floors should be sealed to minimise dust generation.
- (e) Aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete continuing airworthiness records in a proper manner.
- (f) Special case for aircraft to which Part-ML applies:
  - (1) It is acceptable not to have access to a hangar or dedicated workshops. Depending on the scope of work, other facilities are acceptable as long as protection is ensured from inclement weather and contamination. This may include, for example, working in the field or in non-aviation premises (closed or not).
  - (2) These facilities do not need to be individually approved by the competent authority as long as the CAE describes for each type of facility the scope of work, the tooling and

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SECTION A — ORGANISATION

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- equipment available, and the permitted environmental conditions (weather, contamination).
- (3) The organisation should include, as part of the quality system/organisational review, a sampling of the compliance with these conditions during certain maintenance events.
- (g) It is acceptable to combine any or all of the office accommodation requirements into one office subject to the staff having sufficient room to carry out the assigned tasks.
- (h) Storage facilities for serviceable aircraft components should be clean, well ventilated and maintained at an even dry temperature to minimise the effects of condensation. The manufacturer's storage recommendations should be followed for those aircraft components identified in such published recommendations.
- (i) Adequate storage racks should be provided and strong enough to hold aircraft components and provide sufficient support for large aircraft components such that the component is not damaged during storage.
- (j) All aircraft components, wherever practicable, should remain packaged in their protective material to minimise damage and corrosion during storage. A shelf life control system should be utilised and identity tags used to identify components.
- (k) 'Segregation' refers to storing unserviceable components in a separate secured location from serviceable components.
- (I) Segregation and management of any unserviceable component should be ensured according to the pertinent procedure approved to that organisation.
- (m) Procedures should be defined by the organisation describing the decision process for the status of unserviceable components. This procedure should identify at least the following:
  - (1) role and responsibilities of the persons managing the decision process;
  - (2) description of the decision process to choose between maintaining, storing or mutilating a component; and
  - (3) traceability of decision.
- (n) Once unserviceable components or materials have been identified as unsalvageable in accordance with M.A.501(a)(3) or ML.A.504(c), the organisation should establish secure areas in which to segregate such items and to prevent unauthorised access. Unsalvageable components should be managed through a procedure to ensure that these components receive the appropriate final disposal according to M.A.504(b) or ML.A.504(d) or (e). The person responsible for the implementation of this procedure should be identified.

# **CAO.A.035** Personnel requirements

Regulation (EU) 2019/1383

- (a) The CAO shall appoint an accountable manager, who shall have an authority for ensuring that all activities of the organisation can be financed so that those activities are carried out in accordance with the requirements of this Annex.
- (b) The accountable manager shall nominate a person or group of persons who shall be responsible for ensuring that the CAO is always in compliance with the requirements of this Annex. Those person(s) shall ultimately be responsible to the accountable manager.

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- (c) All persons referred to in point (b) shall have the relevant knowledge, background and experience related to continuing airworthiness management or maintenance, as appropriate for their functions.
- (d) The CAO shall have sufficient appropriately qualified staff for it to be able to carry out the planned work. The CAO shall be entitled to use temporarily subcontracted staff.
- (e) The CAO shall assess and record the qualification of all personnel.
- (f) Personnel who carry out specialised tasks, such as welding, or non-destructive testing ('NDT') inspection other than colour contrast inspections shall be qualified in accordance with an officially-recognised standard

# AMC1 CAO.A.035(c) Personnel requirements

ED Decision 2020/002/R

## KNOWLEDGE, BACKGROUND AND EXPERIENCE OF NOMINATED PERSON(S)

Persons or group of persons nominated in accordance with point <u>CAO.A.035(b)</u> should have:

- (a) practical experience and expertise in the application of aviation safety standards and safe operating practices;
- (b) comprehensive knowledge of:
  - (1) Part-M, Part-ML and any associated requirements and procedures; and
  - (2) the CAE;
- (c) 5 years aviation experience of which at least 2 years should be from the aeronautical industry in an appropriate position;
- (d) knowledge of a relevant sample of the type(s) of aircraft or components that are within the scope of work. This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority.
  - Training courses, when used as documented evidence, should be as a minimum at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation, and could be provided by a Part-147 organisation, by the manufacturer or by any other organisation accepted by the competent authority; and
- (e) knowledge of:
  - (1) maintenance standards (including human factor principles); and
  - (2) quality system (or organisational review).

# AMC1 CAO.A.035(e) Personnel requirements

ED Decision 2020/002/R

# **QUALIFICATION ASSESSMENT**

- (a) Personnel involved in maintenance and continuing airworthiness management should be assessed for competence by 'on-the-job' evaluation and/or by examination relevant to their particular job role within the organisation before unsupervised work is permitted.
- (b) Adequate initial and recurrent training should be provided and recorded to ensure continued competence.

# CAO.A.040 Certifying staff

Regulation (EU) 2019/1383

- (a) Certifying staff shall comply with the requirements of Article 5. They shall only exercise their privileges to release maintenance if the CAO has ensured:
  - (1) that these certifying staff meet the requirements of point (b) of point 66.A.20 of Annex III (Part-66) except when paragraph 6 of Article 5 refers to a national regulation of a Member State, in which case, they shall meet the requirements of such a regulation;
  - (2) that these certifying staff have an adequate understanding of the relevant aircraft or aircraft component(s) to be maintained, or both, as well as of the organisation procedures required to perform such maintenance.
- (b) By derogation from point (a), in unforeseen circumstances where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the CAO contracted to provide maintenance support may issue a one-off certification authorisation, alternatively:
  - (1) to one of their employees holding type qualifications for aircraft of similar technology, construction and systems;
  - (2) to any person with no less than 3 years of maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification, provided that there is no organisation approved in accordance with this Annex at that location and that the contracted CAO obtains and holds on file evidence of the experience and licence of that person.

The issuance of a one-off certification authorisation shall be reported by the CAO to the competent authority within 7 days of the issuance. The CAO issuing the one-off certification authorisation shall ensure that any such maintenance that could affect flight safety is rechecked.

- (c) By derogation from point (a), the CAO may use certifying staff qualified in accordance with the following requirements when providing maintenance support to operators involved in commercial operations, subject to appropriate procedures to be approved as part of the CAE:
  - (1) for a repetitive preflight airworthiness directive (AD) which specifically states that the flight crew may carry out such an AD, the CAO may issue a limited certifying-staff authorisation to the pilot-in-command on the basis of the flight crew licence held, provided that the CAO ensures that sufficient practical training has been carried out by the pilot-in-command so he/she can accomplish the AD to the required standard;
  - (2) in the case of aircraft operating away from a supported location, the CAO may issue a limited certifying-staff authorisation to the pilot-in-command, on the basis of the flight crew licence held, provided that the organisation ensures that sufficient practical training has been carried out so that such a commander can accomplish the task to the required standard.
- (d) The CAO shall record the details concerning certifying staff and maintain an up-to-date list of all certifying staff, together with details on their scope of approval, as part of the organisation's exposition.

# CAO.A.045 Airworthiness review staff

Regulation (EU) 2021/700

- (a) In order for it to be approved to carry out airworthiness reviews and, if applicable, to issue permits to fly, a CAO shall have appropriate airworthiness review staff who shall comply with all of the following requirements:
  - (1) they acquired experience in continuing airworthiness of at least 1 year for sailplanes and balloons and of at least 3 years for all other aircraft;
  - (2) they hold an appropriate licence issued in accordance with Article 5 of this Regulation or an aeronautical degree or equivalent, or they acquired experience in continuing airworthiness in addition to that referred to in point (1) of at least 2 years for sailplanes and balloons and at least 4 years for all other aircraft;
  - (3) they acquired appropriate aeronautical-maintenance training.
- (b) Before the CAO issues an authorisation to an airworthiness review staff to perform airworthiness review, the CAO shall nominate the person who will perform an airworthiness review of an aircraft under supervision of the competent authority or under the supervision of a person already authorised as airworthiness review staff of the CAO. If this supervision is satisfactory, the competent authority shall formally accept the staff to become airworthiness review staff.
- (c) The CAO shall ensure that its airworthiness review staff can demonstrate appropriate recent continuing airworthiness experience.
- (d) Each airworthiness review staff shall be identified in the CAE in a list that contains the airworthiness review authorisation referred in point (b).
- (e) The CAO shall maintain a record of all its airworthiness review staff, which shall include details of any appropriate qualification and a summary of relevant continuing airworthiness experience and training of the person concerned, as well as a copy of his or her authorisation. It shall retain that record for a period of at least 2 years after the date at which the person concerned no longer works for the CAO.

# AMC1 CAO.A.045 Airworthiness review staff

ED Decision 2020/002/R

- (a) Airworthiness review staff already authorised to perform airworthiness review for an organisation approved in accordance Part-M Subpart F, Part-M Subpart G, Part-CAMO or Part-145 is considered to be authorised in accordance with Part-CAO when such organisation applies for a Part-CAO approval. This means that no additional supervision is needed to be authorised to be accepted to continue carrying out airworthiness reviews. This does not supersede the requirement for the organisation to ensure that all personnel is competent for the job they are authorised.
- (b) 'Experience in continuing airworthiness' in <a href="CAO.A.045(a)">CAO.A.045(a)</a> refers to any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks.
- (c) 'Appropriate recent continuing airworthiness experience' in <u>CAO.A.045(c)</u> refers to the fact that in order to keep the validity of the airworthiness review staff authorisation, the airworthiness review staff should have either:

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- (1) been involved in continuing airworthiness management activities for at least 6 months in every 2-year period; or
- (2) conducted at least one airworthiness review in the last 12-month period.
- (d) In order to restore the validity of the authorisation, the airworthiness review staff should conduct at a satisfactory level an airworthiness review under the supervision of the competent authority or, if accepted by the competent authority, under the supervision of another currently valid authorised airworthiness review staff of the CAO concerned in accordance with an approved procedure.
- (e) A person that holds a relevant engineering degree or an aircraft maintenance technician qualification with additional education should be considered as holding the equivalent to an aeronautical degree. 'Relevant engineering degree' refers to an engineering degree from mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components.

# CAO.A.050 Components, equipment and tools

Regulation (EU) 2019/1383

- (a) The CAO shall:
  - (1) hold the equipment and tools specified in the maintenance data provided for in point CAO.A.055, or verified equivalents as listed in the CAE, as necessary for day-to-day maintenance within the scope of the organisation's approval;
  - (2) have a procedure to ensure that it has access to all other equipment and tools necessary to carry out its work, used only on an occasional basis, where needed.
- (b) The CAO shall ensure that the tools and equipment it uses are controlled and calibrated to an officially recognised standard. It shall keep records of such calibrations and the standards used and comply with point <u>CAO.A.090</u>.
- (c) The CAO shall inspect, classify and appropriately segregate all incoming components in accordance with points M.A.501 and M.A.504 of Annex I (Part-M) or with points ML.A.501 and ML.A.504 of Annex Vb (Part-ML), as applicable.

# AMC1 CAO.A.050(a) Components, equipment and tools

ED Decision 2020/002/R

- (a) The tools 'necessary for day-to-day maintenance' refers to those needed to perform standard maintenance practices plus those needed in order to complete the normal servicing tasks as well as those needed up to the annual/100-hour or equivalent inspections and which are common to the majority of aircraft contained in the scope of approval.
- (b) The availability of tools rarely used because the particular maintenance task is very rarely performed can be handled through a procedure in accordance with CAO.A.050(a)(2).

# **CAO.A.055** Maintenance data and work orders

Regulation (EU) 2019/1383

(a) The CAO shall hold and use applicable current maintenance data specified in point M.A.401 of Annex I (Part-M) or in point ML.A.401 of Annex Vb (Part-ML), as applicable, in the performance of maintenance, including modifications and repairs. However, in the case of customer-

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- provided maintenance data, it shall only be required to hold such data when the work is in progress.
- (b) Before the commencement of maintenance, a written work order shall be agreed between the CAO and the person or organisation requesting maintenance, in a manner that clearly establishes the maintenance to be carried out.

# AMC1 CAO.A.055 Maintenance data and work orders

ED Decision 2020/002/R

It is not required to continuously hold all the maintenance data. It is acceptable to have a procedure to ensure that the specific maintenance data required for a particular maintenance activity will be available before that maintenance takes place.

# **CAO.A.060 Maintenance standards**

Regulation (EU) 2019/1383

When performing maintenance, the CAO shall comply with all of the following requirements:

- (a) ensure that any person performing maintenance is qualified in accordance with the requirements of this Annex;
- (b) ensure that the area in which maintenance is carried out is well organised and clean (no dirt or contamination);
- (c) use the methods, techniques, standards and instructions specified in the maintenance data and work orders referred to in point <u>CAO.A.055</u>;
- (d) use the tools, equipment and material specified in point CAO.A.050;
- (e) ensure that maintenance is performed in accordance with any environmental limitations specified in the maintenance data referred to in point CAO.A.055;
- (f) ensure that proper facilities are used in case of inclement weather or lengthy maintenance;
- (g) ensure that the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised;
- (h) ensure that an error-capturing method is implemented after the performance of any critical maintenance task;
- (i) perform a general verification after completion of maintenance in order to ensure that the aircraft or component is clear of all tools, equipment and any extraneous parts and material and that all access panels removed have been refitted;
- (j) ensure that all maintenance performed is properly recorded and documented.

# AMC1 CAO.A.060(g) Maintenance standards

ED Decision 2020/002/F

- (a) To minimise the risk of errors and to prevent omissions, the approved CAO when performing maintenance, should ensure that:
  - (1) every maintenance task is signed off only after completion;
  - (2) the grouping of tasks for the purpose of sign-off allows critical steps to be clearly identified; and

- (3) any work performed by personnel under supervision (i.e. temporary staff, trainees) is checked and signed off by an authorised person.
- (b) To minimise the possibility of an error being repeated in identical tasks that involve removal/installation or assembly/disassembly of several components of the same type fitted to more than one system, whose failure could have an impact on safety, the approved CAO when performing maintenance should plan different persons to perform identical tasks in different systems. However, when only one person is available, then this person should perform reinspection of the tasks as described in AMC2 CAO.A.060(h).

# AMC1 CAO.A.060(h) Maintenance standards

ED Decision 2020/002/R

## **CRITICAL MAINTENANCE TASKS**

The following maintenance tasks should primarily be reviewed to assess their impact on safety:

- (a) tasks that may affect the control of the aircraft's flight path and attitude, such as the installation, rigging and adjustments of flight controls;
- (b) tasks that may affect aircraft stability control systems (autopilots, fuel transfer);
- (c) tasks that may affect the propulsive force of the aircraft, including the installation of aircraft engines, propellers and rotors; and
- (d) the overhaul, calibration or rigging of engines, propellers, transmissions and gearboxes.

# AMC2 CAO.A.060(h) Maintenance standards

ED Decision 2020/002/R

#### INDEPENDENT INSPECTION

Independent inspection is one possible error-capturing method.

- (a) What is an independent inspection
  - An independent inspection is an inspection, which is performed by an 'independent qualified person', of a task carried out by an 'authorised person', taking into account that:
  - (1) the 'authorised person' is the person who performs the task or supervises the task, and assumes the full responsibility for the completion of the task in accordance with the applicable maintenance data;
  - (2) the 'independent qualified person' is the person who performs the independent inspection and attests to the satisfactory completion of the task, and that no deficiencies have been found. The 'independent qualified person' does not issue a certificate of release to service (CRS); therefore, he or she is not required to hold certification privileges;
  - (3) the CRS is issued by the 'authorised person' after the independent inspection has been carried out satisfactorily; and
  - (4) the work card system should record the identification of each person, the date and the details of the independent inspection, as necessary, before the CRS is issued.

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(b) Qualifications of personnel performing independent inspections

The organisation should have procedures to demonstrate that the 'independent qualified person' has been trained and has gained experience in the specific control systems to be inspected. This training and experience could be demonstrated, for example, by:

- (i) holding a Part-66 licence in the same subcategory as the licence subcategory or equivalent necessary to release or sign off the critical maintenance task; or
- (ii) holding a Part-66 licence in the same category and specific training in the task to be inspected; or
- (iii) having received appropriate training and having gained relevant experience in the specific task to be inspected.
- (c) How to perform an independent inspection

The independent inspection should ensure, for example, the correct assembly, locking and sense of operation of the parts involved. When inspecting control systems that have undergone maintenance, the 'independent qualified person' should consider the following points independently:

- (1) all those parts of the system that have actually been disconnected or disturbed should be inspected for their correct assembly and locking;
- (2) the system as a whole should be inspected for full and free movement over the complete range;
- (3) cables should be tensioned correctly with adequate clearance at secondary stops;
- (4) the operation of the control system as a whole should be observed to ensure that the controls operate in the correct sense;
- (5) if different control systems are interconnected so that they affect each other, all the interactions should be checked through the full range of the applicable controls; and
- (6) software that is part of the critical maintenance task should be checked; for example, its version and its compatibility with the aircraft configuration.
- (d) What to do in unforeseen cases when only one person is available

#### REINSPECTION

- (1) Reinspection is subject to the same conditions as the independent inspection is, except that the 'authorised person' performing the maintenance task is also acting as 'independent qualified person' and performs the inspection.
- (2) For critical maintenance tasks, reinspection should only be used in unforeseen circumstances when only one person is available to carry out the task and perform the independent inspection. The circumstances cannot be considered to be unforeseen if the person or organisation has not assigned a suitable 'independent qualified person' to that particular task.
- (3) The CRS is issued by the 'authorised person' after the reinspection has been performed satisfactorily.
- (4) The work card system should record the identification of the 'authorised person' and the date and the details of the reinspection, as necessary, before the CRS is issued.



# CAO.A.065 Aircraft certificate of release to service

Regulation (EU) 2019/1383

At the completion of any aircraft maintenance carried out in accordance with this Annex, an aircraft CRS shall be issued in accordance with point M.A.801 of Annex I (Part-M) or point ML.A.801 of Annex Vb (Part-ML), as applicable.

# CAO.A.070 Component certificate of release to service

Regulation (EU) 2019/1383

- At the completion of all component maintenance in accordance with this Annex, a component (a) CRS shall be issued in accordance with point M.A.802 of Annex I (Part-M) or point ML.A.802 of Annex Vb (Part-ML), as applicable. An EASA Form 1 shall be issued in accordance with Appendix II to Annex I (Part-M), except as provided for in points (b) or (d) of point M.A.502 of Annex I (Part-M) and point ML.A.502 of Annex Vb (Part-ML) and for components fabricated in accordance with point (c) of point CAO.A.020.
- The EASA Form 1 referred to in point (a) may be generated from a computer database. (b)

# GM1 CAO.A.070 Component certificate of release to service

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#### **COMPONENTS MAINTAINED BY A CAO**

Appendix II to Part-M, point (5), blocks 12 and 14a describe how the component maintenance release is formalised by the CAO on EASA Form 1.

Used components maintained by a CAO appropriately approved for component maintenance and released on an EASA Form 1 cannot be installed on complex motor-powered aircraft or aircraft used by an air carrier licensed in accordance with Regulation (EC) No 1008/2008.

# AMC1 CAO.A.070(a) Component certificate of release to service

- 1. An aircraft component which has been maintained off the aircraft requires the issuance of a CRS for such maintenance and another CRS in regard to being installed properly on the aircraft when such installation occurs. When an organisation maintains a component for use by the same organisation, an EASA Form 1 may not be necessary depending upon the organisation's internal release procedures defined in the CAE.
- 2. In the case of components in storage prior to Part-145, Part-M and Part 21 and not released on an EASA Form 1 or equivalent in accordance with M.A.501(a)(1) or ML.A.501(a), or removed serviceable from a serviceable aircraft or from an aircraft which has been withdrawn from service, the following applies:
  - 2.1. An EASA Form 1 may be issued for an aircraft component which has been:
    - maintained before Part-145 or Part-M became effective, or manufactured before Part 21 became effective;
    - used on an aircraft and removed in a serviceable condition. Examples include leased and loaned aircraft components;

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- removed from aircraft which have been withdrawn from service, or from aircraft which have been involved in abnormal occurrences such as accidents, incidents, heavy landings or lightning strikes;
- maintained by an unapproved organisation.
- 2.2. An appropriately rated Part-CAO maintenance organisation may issue an EASA Form 1 as detailed in points 2.5 to 2.9, as appropriate, in accordance with the procedures detailed in the CAE as approved by the competent authority. The appropriately rated Part-CAO maintenance organisation is responsible for ensuring that all reasonable measures have been taken to ensure that only approved and serviceable aircraft components are issued with an EASA Form 1 under this point 2.
- 2.3. For the purposes of this point 2 only, 'appropriately rated' refers to an organisation with an approval class rating for the type of component or for the product in which it may be installed.
- 2.4. An EASA Form 1 issued in accordance with this point 2 should be issued by signing in block 14b and stating 'Inspected/Tested' in block 11. In addition, block 12 should specify:
  - 2.4.1. when the last maintenance was carried out and by whom;
  - 2.4.2. if the component is unused, when the component was manufactured and by whom with a cross reference to any original documentation which should be included in the Form;
  - 2.4.3. a list of all airworthiness directives (ADs), repairs and modifications known to have been incorporated. If no ADs or repairs or modifications are known to be incorporated, then this should be so stated;
  - 2.4.4. the detail of life used for service life-limited parts being any combination of fatigue, overhaul or storage life;
  - 2.4.5. for any aircraft component having its own maintenance history record, reference to the particular maintenance history record as long as the record contains the details that would otherwise be required in block 12. The maintenance history record and acceptance test report or statement, if applicable, should be attached to EASA Form 1.

## 2.5. New/unused aircraft components

- 2.5.1. Any unused aircraft component in storage without an EASA Form 1 up to the effective date(s) for Part 21 that was manufactured by an organisation acceptable to the competent authority at the time may be issued with an EASA Form 1 by an appropriately rated maintenance organisation approved under Part-CAO. EASA Form 1 should be issued in accordance with the following points, which should be included in a procedure within the CAE.
  - Note 1: It should be understood that the release of a stored but unused aircraft component in accordance with this point represents a maintenance release under Part-CAO and not a production release under Part 21. It is not intended to bypass the production release procedure agreed by the Member State for parts and subassemblies intended for fitment on the manufacturers' own production line.
  - (a) An acceptance test report or statement should be available for all used and unused aircraft components that are subject to acceptance testing after manufacturing or maintenance as appropriate.

- (b) The aircraft component should be inspected for compliance with the manufacturer's instructions and limitations for storage and condition including any requirement for limited storage life, inhibitors, controlled climate and special storage containers. In addition, or in the absence of specific storage instructions, the aircraft component should be inspected for damage, corrosion and leakage to ensure good condition.
- (c) The storage life used of any storage life-limited parts should be established.
- 2.5.2. If it is not possible to establish satisfactory compliance with all applicable conditions specified in point 2.5.1 (a) to (c) inclusive, the aircraft component should be disassembled by an appropriately rated organisation and subjected to a check for incorporated ADs, repairs and modifications and inspected/tested in accordance with the maintenance data to establish satisfactory condition and, if relevant, all seals, lubricants and life-limited parts replaced. Upon satisfactory completion after reassembly, an EASA Form 1 may be issued stating what was carried out and the reference to the maintenance data included.
- 2.6. Used aircraft components removed from a serviceable aircraft
  - 2.6.1. Serviceable aircraft components removed from a Member State registered aircraft may be issued with an EASA Form 1 by an appropriately rated organisation subject to compliance with this point 2.6.1.
    - (a) The organisation should ensure that the component was removed from the aircraft by an appropriately qualified person.
    - (b) The aircraft component may only be deemed serviceable if the last flight operation with the component fitted revealed no faults on that component or related system.
    - (c) The aircraft component should be inspected for satisfactory condition including in particular damage, corrosion or leakage and compliance with any additional maintenance data.
    - (d) The aircraft record should be researched for any unusual events that could affect the serviceability of the aircraft component such as involvement in accidents, incidents, heavy landings or lightning strikes. Under no circumstances may an EASA Form 1 be issued in accordance with this point 2.6 if it is suspected that the aircraft component has been subjected to extremes of stress, temperatures or immersion which could affect its operation.
    - (e) A maintenance history record should be available for all used serialised aircraft components.
    - (f) Compliance with known modifications and repairs should be established.
    - (g) The flight hours/cycles/landings as applicable of any service life-limited parts including time since overhaul should be established.
    - (h) Compliance with known applicable airworthiness directives should be established.
    - (i) Subject to satisfactory compliance with this point 2.6.1, an EASA Form 1 may be issued and should contain the information as specified in point 2.4 including the aircraft from which the aircraft component was removed.

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- 2.6.2. Serviceable aircraft components removed from a non-Member State registered aircraft may only be issued with an EASA Form 1 if the components are leased or loaned from the maintenance organisation approved under Part-CAO that retains control of the airworthiness status of the components. An EASA Form 1 may be issued and should contain the information as specified in point 2.4 including the aircraft from which the aircraft component was removed.
- 2.7. Used aircraft components removed from an aircraft withdrawn from service
  - Serviceable aircraft components removed from a Member State registered aircraft withdrawn from service may be issued with an EASA Form 1 by a maintenance organisation approved under Part-CAO subject to compliance with this point 2.7.
  - (a) Aircraft withdrawn from service are sometimes dismantled for spares. This is considered to be a maintenance activity and should be accomplished under the control of an organisation approved under Part-CAO, employing procedures approved by the competent authority.
  - (b) To be eligible for installation, components removed from such aircraft may be issued with an EASA Form 1 by an appropriately rated organisation following a satisfactory assessment.
  - (c) As a minimum, the assessment will need to satisfy the standards set out in points 2.5 and 2.6 as appropriate. This should, where known, include the possible need for the alignment of scheduled maintenance that may be necessary to comply with the maintenance programme applicable to the aircraft on which the component is to be installed.
  - (d) Irrespective of whether the aircraft holds a certificate of airworthiness or not, the organisation responsible for certifying any removed component should ensure that the manner in which the components were removed and stored are compatible with the standards required by Part-CAO.
  - (e) A structured plan should be formulated to control the aircraft disassembly process. The disassembly is to be carried out by an appropriately rated organisation under the supervision of certifying staff, who will ensure that the aircraft components are removed and documented in a structured manner in accordance with the appropriate maintenance data and disassembly plan.
  - (f) All recorded aircraft defects should be reviewed and the possible effects these may have on both normal and standby functions of removed components are to be considered.
  - (g) Dedicated control documentation is to be used as detailed by the disassembly plan, to facilitate the recording of all maintenance actions and component removals performed during the disassembly process. Components found to be unserviceable are to be identified as such and quarantined pending a decision on the actions to be taken. Records of the maintenance accomplished to establish serviceability are to form part of the component maintenance history.
  - (h) Suitable Part-CAO facilities for the removal and storage of removed components are to be used which include suitable environmental conditions, lighting, access equipment, aircraft tooling and storage facilities for the work to be undertaken. While it may be acceptable for components to be removed, given local environmental conditions, without the benefit of an enclosed facility, subsequent

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disassembly (if required) and storage of the components should be in accordance with the manufacturer's recommendations.

2.8. Used aircraft components maintained by organisations not approved in accordance with Part-M Subpart F, Part-CAO or Part-145

For used components maintained by a maintenance organisation not approved under Part-M Subpart F, Part-CAO or Part-145, due care should be taken before acceptance of such components. In such cases, an appropriately rated maintenance organisation approved under Part-CAO should establish satisfactory conditions by:

- (a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data;
- (b) replacing all service life-limited components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition;
- (c) reassembling and testing as necessary the component; and
- (d) completing all certification requirements as specified in <u>CAO.A.070</u>.

In the case of used components maintained by an FAA Part-145 repair station (USA) or by a TCCA CAR573 approved maintenance organisation (Canada) that does not hold an EASA Part-145, Part-CAO or Part-M Subpart F approval, the conditions (a) through (d) described above may be replaced by the following conditions:

- (a) availability of a Form 8130-3 (FAA) or TCCA 24-0078 (TCCA) or an Authorized Release Certificate Form One (TCCA);
- (b) verification of compliance with all applicable airworthiness directives;
- (c) verification that the component does not contain repairs or modifications that have not been approved in accordance with Part 21;
- (d) inspection for satisfactory condition including in particular damage, corrosion or leakage; and
- (e) issuance of an EASA Form 1 in compliance with points 2.2, 2.3 and 2.4.

These alleviated requirements are based on the fact that credit can be taken for their technical capabilities and their competent authority oversight, as attested by the following documents:

- Maintenance Annex Guidance (MAG) between the FAA and EASA
- Maintenance Annex Guidance (MAG) between the TCCA and EASA
- 2.9. Used aircraft components removed from an aircraft involved in an accident or incident

Such components should only be issued with an EASA Form 1 when processed in accordance with point 2.7 and a specific work order including all additional necessary tests and inspections made necessary by the accident or incident. Such a work order may require input from the TC holder or original manufacturer as appropriate. This work order should be referenced in block 12.

3. A certificate should not be issued for any component when it is known that the component is unserviceable except in the case of a component undergoing a series of maintenance processes at several approved maintenance organisations and the component needs a certificate for the previous maintenance process carried out for the next approved maintenance organisation to

- accept the component for subsequent maintenance processes. In such a case, a clear statement of limitation should be endorsed in block 12.
- 4. The certificate is to be used for export/import purposes, as well as for domestic purposes, and serves as an official certificate for components from the manufacturer/maintenance organisation to users. It should only be issued by organisations approved by a competent authority or the Agency as applicable within the scope of the approval.

# CAO.A.075 Continuing-airworthiness management

Regulation (EU) 2019/1383

- (a) All continuing airworthiness management shall be carried out in accordance with the requirements of Subpart C of Annex I (Part-M) or Subpart C of Annex Vb (Part-ML), as applicable.
- (b) For every aircraft managed, the CAO shall:
  - (1) develop and control the AMP for the aircraft managed and:
    - (i) in the case of aircraft complying with Annex Vb (Part-ML), approve the AMP and its amendments, or
    - (ii) in the case of aircraft complying with Annex I (Part-M), present the AMP and its amendments to the competent authority for approval, unless the approval is covered by an indirect approval procedure in accordance with point (c) of point M.A.302 of Annex I (Part-M);
  - (2) provide a copy of the AMP to the owner;
  - (3) ensure that data used for any modification and repairs complies with points <u>M.A.304</u> or <u>ML.A.304</u>, as applicable;
  - (4) ensure that all maintenance is performed in accordance with the AMP and released in accordance with Section A, Subpart H of Annex I (Part-M), Section A of Annex II (Part-145) or Section A, Subpart H of Annex Vb (Part-ML), as applicable;
  - (5) ensure that all applicable ADs and all operational directives with a continuing airworthiness impact are implemented;
  - (6) ensure that all defects discovered during maintenance or reported are corrected by an appropriately approved maintenance organisation or by independent certifying staff;
  - (7) ensure that the aircraft is brought for maintenance to an appropriately approved organisation or to independent certifying staff, whenever necessary;
  - (8) coordinate the scheduled maintenance, application of ADs, replacement of service-lifelimited parts and component inspection in order to ensure the work is carried out properly;
  - (9) manage and archive all continuing-airworthiness records and, if applicable, the aircraft technical log;
  - (10) ensure that the mass-and-balance statement reflects the current status of the aircraft.



## AMC1 CAO.A.075 Continuing airworthiness management

ED Decision 2020/002/R

- The CAO holding the CAO.A.095(b) privilege is in charge of the continuing airworthiness management and this includes the tasks specified respectively in M.A.301 points (b), (c), (f), (g) and (h), and ML.A.301 points (b), (c), (d) and (e).
- (b) If the CAO does not hold the appropriate maintenance privilege, then the CAO should conclude a contract with the appropriate maintenance organisation(s) in agreement with the owner/operator.
- (c) The CAO bears the responsibility for the airworthy condition of the aircraft for which it performs the continuing airworthiness management. Thus, it should be satisfied before the intended flight that all required maintenance has been properly carried out.
- (d) The fact that the CAO has contracted a maintenance organisation should not prevent it from checking at the maintenance facilities on any aspect of the contracted work to fulfil its responsibility for the airworthiness of the aircraft.
- (e) The contract between the CAO and the maintenance organisation(s) should specify in detail the responsibilities and the work to be performed by each party.

## CAO.A.080 Continuing airworthiness management data

Regulation (EU) 2020/270

The CAO shall hold and use applicable current maintenance data specified in point M.A.401 of Annex I (Part-M) or point ML.A.401 of Annex Vb (Part-ML), as applicable, for the performance of the continuing airworthiness management tasks referred to in point CAO.A.075 of this Annex (Part-CAO). That data may be provided by the owner, subject to a contract as referred in points M.A.201(h)(2) or M.A.201(i)(1) or M.A.201(i)(3) of Annex I (Part-M), or points ML.A.201(e)(1) or ML.A.201(f) of Annex Vb (Part-ML), in which case the CAO only needs to hold such data for the duration of the contract, unless where it is to retain the data pursuant to point <u>CAO.A.090(b)</u> of this Annex (Part-CAO).

# AMC1 CAO.A.080 Continuing airworthiness management data

When there is no contract yet for continuing airworthiness management, there is no need to hold the current continuing airworthiness management data.

#### **CAO.A.085** Airworthiness review

Regulation (EU) 2020/270

The CAO shall perform any airworthiness reviews in accordance with point M.A.901 of Annex I (Part-M) or point ML.A.903 of Annex Vb (Part-ML), as applicable.

# CAO.A.090 Record-keeping

Regulation (EU) 2019/1383

- (a) The CAO shall retain the following records:
  - the maintenance records necessary to demonstrate that all requirements of this Annex have been met for the issuance of the CRS, including the subcontractor's release documents; the CAO shall provide a copy of each CRS to the owner of the aircraft,

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together with a copy of any specific repair or modification data used for the repairs or modifications carried out;

- (2) the continuing airworthiness management records required by any of the following:
  - (i) point M.A.305 and, if applicable, point M.A.306 of Annex I (Part-M);
  - (ii) point ML.A.305 of Annex Vb (Part-ML);
- (3) where the CAO has the privilege referred to in point (c) of point CAO.A.095, it shall retain a copy of each airworthiness review certificate (ARC) issued in accordance with point (a) of point ML.A.901 of Annex Vb (Part-ML) and recommendation issued or, as applicable, extended, together with all supporting documents;
- (4) where the CAO has the privilege referred to in point (d) of point <u>CAO.A.095</u>, it shall retain a copy of each permit to fly issued in accordance with point 21.A.729 of Annex I (Part-21) to Regulation (EU) No 748/2012.
- (b) The CAO shall retain a copy of the records described in point (a)(1), and any associated maintenance data, for a period of 3 years from the date at which it released to service the aircraft or aircraft component to which the work relates.
- (c) The CAO shall retain a copy of the records referred to in points (a)(2) to (a)(4) for a period of 2 years from the date at which the aircraft has been permanently withdrawn from service.
- (d) All records shall be stored in a manner that ensures protection from damage, alteration and theft.
- (e) All computer hardware used for backup of the maintenance records shall be stored in a different location from that containing those data and in an environment that ensures that they remain in good condition.
- (f) Where the continuing airworthiness management of an aircraft is transferred to another organisation or person, all the records retained under points (a)(2) to (a)(4) shall be transferred to that organisation or person. From the moment of the transfer, points (b) and (c) shall apply to that organisation or person.
- (g) Where the CAO terminates its operation, all retained records shall be transferred as follows:
  - the records referred to in point (a)(1) shall be transferred to the last owner or customer
    of the respective aircraft or component or shall be stored as specified by the competent
    authority;
  - (2) the records referred to in point (a)(2) to (a)(4) shall be transferred to the owner of the aircraft.

# CAO.A.095 Privileges of the organisation

Regulation (EU) 2020/270

The CAO shall have the following privileges:

- (a) Maintenance
  - (1) Maintain any aircraft or component for which it is approved at the locations specified in the approval certificate and the CAE.
  - (2) Arrange for the performance of specialised services at another organisation appropriately qualified under the control of the CAO, in accordance with the appropriate procedures set out in the CAE and approved by the competent authority.

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- (3) Maintain any aircraft or component for which it is approved at any location, where the need of such maintenance arises either from the unserviceability of the aircraft or the need for supporting occasional maintenance, in accordance with the conditions specified in the CAE.
- (4) Issue certificates of release to service upon completion of maintenance, in accordance with point <u>CAO.A.065</u> or <u>CAO.A.070</u>.
- (b) Continuing airworthiness management
  - (1) Manage the continuing airworthiness of any aircraft for which it is approved.
  - (2) Approve the AMP, in accordance with point (b)(2) of point ML.A.302, for aircraft managed in accordance with Annex Vb (Part-ML).
  - (3) Carry out limited continuing airworthiness tasks with any contracted organisation working under their quality system, as listed on the approval certificate.
  - (4) Extend, in accordance with point M.A.901(f) of Annex I (Part-M) or point ML.A.901(c) of Annex Vb (Part-ML), an ARC that has been issued by the competent authority, another organisation or person as applicable.
- (c) Airworthiness review:
  - (1) A CAO with its principal place of business in one of the Member States, the approval of which includes the privileges referred to in point (b), may be approved to carry out airworthiness reviews in accordance with point <a href="M.A.901">M.A.901</a> of Annex I (Part-M) or point <a href="ML.A.903">ML.A.903</a> of Annex Vb (Part-ML), as applicable, and:
    - (i) issue the related ARC or recommendation for the issuance of the ARC;
    - (ii) extend the validity of an existing ARC.
  - (2) A CAO with its principal place of business in one of the Member States, the approval of which includes the privileges referred to in point (a), may be approved to carry out airworthiness reviews in accordance with point <a href="ML.A.903">ML.A.903</a> of Annex Vb (Part-ML) and issue the related ARC.
- (d) Permit to fly
  - A CAO with its principal place of business in one of the Member States, the approval of which includes the privileges referred to in point (c), may be approved to issue a permit to fly in accordance with point (d) of point 21.A.711 of Annex I (Part-21) to Regulation (EU) No 748/2012 for those aircraft for which it can issue the ARC when it attests conformity with the approved flight conditions, in accordance with an adequate procedure provided for in the CAE.
- (e) A CAO may be approved for one or more privileges.

# GM1 CAO.A.095 Privileges of the organisation

ED Decision 2020/002/R

A CAO can be approved to perform airworthiness reviews although it does not hold the privileges of continuing airworthiness management (for aircraft to which Part-ML is applicable). This means that the certificate will show the boxes 'maintenance' and 'airworthiness reviews' ticked.

# AMC1 CAO.A.095(b)(3) Privileges of the organisation

ED Decision 2020/009/R

#### SUBCONTRACTING OF CONTINUING AIRWORTHINESS TASKS

- (a) The CAO may subcontract certain continuing airworthiness management tasks to qualified organisations. The subcontracted organisation performs the continuing airworthiness management tasks as an integral part of the CAO quality system, irrespective of any other approval held by the subcontracted organisation (including CAMO, CAO or Part-145 approval).
- (b) The CAO remains accountable for the satisfactory completion of the continuing airworthiness management tasks irrespective of any contract that may be established.
- (c) In order to fulfil this responsibility, the CAO should be satisfied that the actions taken by the subcontracted organisation meet the standards required by Part-CAO. Therefore, the CAO management of such activities should be accomplished by:
  - (1) active control through direct involvement; and/or
  - (2) endorsing the recommendations made by the subcontracted organisation.
- (d) In order to retain ultimate responsibility, the CAO should limit subcontracted tasks to the activities specified below:
  - (1) airworthiness directive analysis and planning;
  - (2) service bulletin analysis;
  - (3) planning of maintenance;
  - (4) reliability monitoring, engine health monitoring;
  - (5) maintenance programme development and amendments; and
  - (6) any other activities, which do not limit the CAO responsibilities, as agreed by the competent authority.
- (e) The CAO's controls associated with subcontracted continuing airworthiness management tasks should be reflected in the associated contract and be in accordance with the CAO policy and procedures defined in the CAE. When such tasks are subcontracted, the quality system is considered to be extended to the subcontracted organisations.
- (f) With the exception of engines and auxiliary power units, contracts would normally be limited to one organisation per aircraft type for any combination of the subcontracted activities. Where contracts are made with more than one organisation, the CAO should demonstrate that adequate coordination controls are in place and that the individuals' responsibilities are clearly defined in the related contracts.
- (g) Contracts should not authorise the subcontracted organisation to subcontract elements of the continuing airworthiness management tasks to other organisations.
- (h) The competent authority should exercise oversight of the subcontracted activities through the CAO approval. The contracts should be acceptable to the competent authority. The CAO should only subcontract to organisations which are specified by the competent authority on EASA Form 3-CAO (page 2, block titled 'List of organisation(s) working under a quality system').
- (i) The subcontracted organisation should agree to notify the CAO of any changes affecting the contract as soon as practical. The CAO should then inform its competent authority. Failure to do so may invalidate the competent authority's acceptance of the contract.

(j) <u>Appendix II to AMC1 CAMO.A.125(d)(3)</u> provides information on the subcontracting of continuing airworthiness management tasks by the CAMO. The same principles may be applied to the CAO.

# CAO.A.100 Quality system and organisational review

Regulation (EU) 2019/1383

- (a) To ensure that the CAO continues to meet the requirements of this Annex, this organisation shall establish a quality system and designate a quality manager.
- (b) The quality system shall monitor the carrying out of the activities of the organisation covered by this Annex. It shall monitor in particular:
  - (1) that all those activities are performed in accordance with the approved procedures;
  - (2) that all contracted maintenance tasks are carried out in accordance with the contract;
  - (3) that the organisation continues to comply with the requirements of this Annex.
- (c) The records of that monitoring shall be retained for at least the previous 2 years.
- (d) Where the organisation holding a CAO approval is additionally approved in accordance with an Annex other than this Annex, the quality system may be combined with that required by the other Annex.
- (e) A CAO shall be considered as a small CAO when one of the following condition is met:
  - (1) the scope of the CAO does only contain aircraft covered by Part-ML.
  - (2) the CAO does not exceed 10 full-time equivalent staff involved in maintenance.
  - (3) the CAO does not exceed 5 full-time equivalent staff involved in continuing airworthiness management.
- (f) In the case of a small CAO, the quality system may be replaced by regular organisational reviews, subject to the approval of the competent authority. In that case, the CAO shall not contract continuing airworthiness management tasks to other parties.

# GM1 CAO.A.100(a) Quality system and organisational review

D Decision 2020/002/R

#### **QUALITY SYSTEM — GENERAL**

- (a) The primary objectives of the quality system are to provide an independent monitoring function on how the organisation ensures compliance with the applicable requirements, policies and procedures, and to request actions where non-compliances are identified.
- (b) The independence of the quality system is established by always ensuring that audits are carried out by personnel who are not responsible for the functions, procedures or products that are audited.

# AMC1 CAO.A.100(a) Quality system and organisational review

D Decision 2020/002/R

#### QUALITY SYSTEM — FEEDBACK

(a) The quality system should include a feedback system: it should ensure that all findings resulting from the independent audits are properly investigated and corrected in a timely manner. It

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- should address who is required to rectify each non-compliance and the procedure to be followed if rectification is not completed within appropriate timescales. The procedure should enable the accountable manager to be kept informed of any safety issues and the extent of compliance with Part-CAO.
- (b) The audit reports referenced in <u>AMC1 CAO.A.100(b)</u> should be sent to the relevant department for rectification action giving target rectification dates. Rectification dates should be discussed with such department before the quality department or nominated auditor confirms such dates in the report. The relevant department is required to rectify findings and inform the quality manager or the auditor of such rectification.
- (c) The accountable manager should hold regular meetings with staff to check the progress of any corrective actions. If these meetings are delegated to the quality manager on a day-to-day basis, then the accountable manager should:
  - (1) meet the senior staff involved at least twice per year to review the overall performance of the compliance monitoring function; and
  - (2) receive at least a half-yearly summary report on non-compliance findings.

# AMC1 CAO.A.100(b) Quality system and organisational review

ED Decision 2020/002/R

#### **QUALITY SYSTEM — INDEPENDENT AUDIT**

- (a) An essential element of the quality system is the independent audit.
- (b) The independent audit should be an objective process of routine sample checks of all aspects of the organisation's ability to carry out continuing airworthiness management and/or maintenance to the standards required by Regulation (EU) No 1321/2014. It should include some product sampling (e.g. product audit) as this is the end result of the process.
- (c) The independent audit should provide an objective overview of the complete set of continuing-airworthiness-management- and/or maintenance-related activities.
- (d) The organisation should establish an audit plan to show when and how often the activities as required by Part-M, Part-ML and Part-CAO will be audited.
- (e) The audit plan should ensure that all aspects of Part-CAO compliance are verified every year, including all the subcontracted activities, and the auditing may be carried out as a complete single exercise or (sub)divided over the annual period. The independent audit should not require each procedure to be verified against each product line when it can be shown that the particular procedure is common to more than one product line and the procedure has been verified every year without resultant findings. Where findings have been identified, the particular procedure should be verified against other product lines until the findings have been rectified, after which the independent audit procedure may revert to a 1-year interval for the particular procedure.
- (f) Provided that there are no safety-related findings, the audit planning cycle specified in this AMC may be increased by up to 100 %, subject to agreement by the competent authority.
- (g) Where the organisation has more than one location approved, the quality system should include a description of how these locations are integrated into the system, and include a plan to audit each location at a frequency consistent with the extent of activity at the particular location, not exceeding 2 years.

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(h) A report should be issued each time an audit is carried out describing what was checked and the resulting non-compliance findings against applicable requirements and procedures.

# GM1 CAO.A.100(b) and CAO.B.055 Quality system and organisational review and Continuing oversight

ED Decision 2021/009/R

# THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) FOR PERFORMING REMOTE AUDITS

Similar provisions to those in GM1 145.A.65(c)(1) and 145.B.30 apply.

# GM1 CAO.A.100(e) Quality system and organisational review

FD Decision 2020/002/F

An organisation that holds both maintenance and continuing airworthiness management privileges can be considered to be at the same time:

- a small CAO for one privilege; and
- not a small CAO for the other privilege.

In these situations, the organisation is not considered to be a small CAO as a whole.

# AMC1 CAO.A.100(f) Quality system and organisational review

ED Decision 2020/002/R

#### **ORGANISATIONAL REVIEW**

- (a) The primary objectives of organisational review are to provide a monitoring function on how the organisation ensures compliance with the applicable requirements, policies and procedures, and to request actions where non-compliances are identified.
- (b) The CAO should identify the:
  - (1) person responsible for the organisational review;
  - frequency of the reviews;
  - (3) scope and content of the reviews;
  - (4) persons accomplishing the reviews;
  - (5) procedure for planning, performing and processing review findings; and
  - (6) procedure for ensuring corrective actions are carried out in the appropriate time frame.
- (c) Appendix II to AMC1 CAO.A.100(f) should be used to manage the organisational reviews.
- (d) The following continuing airworthiness management activities should not be considered to be subcontracting and, as a consequence, they may be performed without a quality system, although they need to be described in the CAE and be approved by the competent authority:
  - (1) Subscription to a technical publisher that provides maintenance data (aircraft maintenance manuals, illustrated parts catalogues, service bulletins, etc.).
  - (2) Contracting the use of a software tool for the management of <u>CAO.A.080</u> continuing airworthiness data and <u>CAO.A.090</u> records, provided that:

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- (i) if the tool is used by several organisations, each organisation has access to its own data only;
- (ii) introduction of data can only be performed by personnel of the CAO; and
- (iii) the data can be retrieved at any time.

# CAO.A.105 Changes to the organisation

Regulation (EU) 2021/700

- (a) In order to enable the competent authority to determine continued compliance with this Annex, the CAO shall notify the competent authority of any proposal to carry out any of the following changes, before such changes take place:
  - (1) changes affecting the information contained in the approval certificate laid down in Appendix I and the terms of approval of this Annex;
  - (2) changes of the persons referred to in points CAO.A.035(a) and (b);
  - (3) changes in the aircraft types covered by the scope of work referred to in point (a)(1) of point <u>CAO.A.020</u> in the case of aeroplanes of more than 2 730 kg maximum take-off mass (MTOM) and in the case of helicopters of more than 1 200 kg MTOM or certified for more than 4 occupants;
  - (4) changes in the scope of work referred to in point (a)(2) of <u>CAO.A.020</u> in the case of complete turbine engines;
  - (5) changes in the control procedure set out in point (b) of this point.
- (b) Any other changes in locations, facilities, equipment, tools, material, procedures, scope of work and staff shall be controlled by the CAO through a control procedure provided for in the CAE. The CAO shall submit a description of those changes and the corresponding CAE amendments to the competent authority within 15 days from the day on which the change took place.

# CAO.A.110 Continued validity

Regulation (EU) 2019/1383

- (a) An approval shall be issued for an unlimited duration and shall remain valid subject to:
  - (1) the organisation remaining in compliance with the requirements of this Annex, in particular how the findings are handled in accordance with point CAO.A.115;
  - (2) the competent authority being granted access to the organisation to determine continued compliance with the requirements of this Annex;
  - (3) the competent authority not having surrendered or revoked the approval.
- (b) Upon surrender or revocation of the approval, the organisation shall return the approval certificate to the competent authority.

# CAO.A.115 Findings

Regulation (EU) 2019/1383

(a) A Level 1 finding is any significant non-compliance with Part-CAO requirements which lowers the safety standard and seriously hazards flight safety.



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- (b) A Level 2 finding is any non-compliance with the Part-CAO requirements which may lower the safety standard and possibly hazard flight safety.
- (c) After receiving a notification of a finding in accordance with point <u>CAO.B.060</u>, the CAO shall adopt a corrective action plan and demonstrate to the satisfaction of the competent authority that it has taken the necessary corrective action to address the finding within the time period set by that authority.



## **SECTION B — AUTHORITY REQUIREMENTS**

# CAO.B.010 Scope

Regulation (FU) 2019/1383

This Section establishes the administrative requirements to be met by the competent authorities in connection to the requirements for organisations set out in Section A.

## **CAO.B.017 Means of compliance**

Regulation (EU) 2019/1383

- (a) The Agency shall develop Acceptable Means of Compliance ('AMC') that may be used to demonstrate compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (b) Alternative means of compliance may be used to demonstrate compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts
- (c) The competent authority shall establish a system to consistently evaluate that all alternative means of compliance used by organisations under its oversight allow for the establishment of compliance with Regulation (EU) No 2018/1139 and its delegated and implementing acts.
- (d) The competent authority shall evaluate all alternative means of compliance proposed by an organisation in accordance with point <a href="CAO.A.017">CAO.A.017</a> by analysing the documentation provided and, if considered necessary, conducting an inspection of the organisation.
  - When the competent authority finds that the alternative means of compliance are in accordance with Regulation (EU) 2018/1139 and its delegated and implementing acts, it shall without undue delay:
  - (1) notify the applicant that the alternative means of compliance may be used and, if applicable, amend the approval or certificate of the applicant accordingly;
  - (2) notify the Agency of their content, including copies of all relevant documentation.

# **GM1 CAO.B.017** Means of compliance

ED Decision 2020/002/R

#### **ALTERNATIVE MEANS OF COMPLIANCE**

Alternative means of compliance that are used by a CAO, may be used by another CAO only if they are processed again in accordance with point <u>CAO.B.017(d)</u>.

# CAO.B.020 Record-keeping

Regulation (EU) 2019/1383

- (a) The competent authority shall establish a system of record-keeping that allows adequate traceability of the process to keep the records for issuing, continuing, changing, suspending or revoking each issued certificate.
- (b) The records of the competent authority for the oversight of organisations approved in accordance with this Annex shall include, as a minimum:
  - the application for an organisation approval;

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- (2) the organisation approval certificate, including any changes thereto;
- (3) a copy of the audit programme of the organisation, listing the dates at which audits were carried out and when they are due;
- (4) the continuing-oversight records, including all audit records, as provide for in point CAO.B.055;
- (5) all findings, actions required to close the findings and recommendations;
- (6) copies of all relevant correspondence with the organisation;
- (7) details of any exemption in accordance with point CAO.B.035 and enforcement actions;
- (8) any report from other competent authorities relating to the oversight of the organisation;
- (9) CAE and its amendments;
- (10) copies of any other document approved by the competent authority.
- (c) The retention period for the records listed under point (b) shall be at least 5 years.
- (d) All records shall be made available to the competent authority of another Member State or the Agency, upon request.

# CAO.B.025 Mutual exchange of information

Regulation (EU) 2019/1383

- (a) Where necessary for the performance of their tasks under this Regulation, the competent authorities shall exchange information.
- (b) In the case of a potential safety threat involving several Member States, the competent authorities concerned shall assist each other in carrying out the necessary oversight action.

# CAO.B.030 Responsibilities

Regulation (EU) 2019/1383

The competent authority shall conduct the necessary inspections and investigations in order to verify and ensure that the organisations for which it is responsible in accordance with point  $\underline{\mathsf{CAO.1}}$  meets the requirements of Section A of this Annex.

# CAO.B.035 Exemptions

Regulation (EU) 2019/1383

Where a Member State grants an exemption from the requirements of this Annex in accordance with paragraph 2 of Article 71 of Regulation (EU) 2018/1139, the competent authority shall record the exemption. It shall retain those records as provided for in point (b)(6) of point <u>CAO.B.020</u>.

# CAO.B.040 Application

Regulation (EU) 2019/1383

Where facilities of the CAO are located in more than one Member State, the initial certification procedure and continued oversight of the approval shall be carried out in cooperation with the competent authorities designated by the Member States in whose territory the other facilities are located.



## CAO.B.045 Initial certification procedure

Regulation (EU) 2020/270

- (a) Where it has been established that the organisation meets the requirements laid down in points (a) and (b) of <u>CAO.A.035</u>, the competent authority shall formally notify the applicant about the acceptance of the personnel.
- (b) The competent authority shall ensure that the procedures specified in the CAE comply with Section A, and that the accountable manager has signed the commitment statement referred to in point (a)(1) of CAO.A.025.
- (c) The competent authority shall verify that the organisation complies with Section A.
- (d) The competent authority shall convene a meeting with the accountable manager at least once during the investigation for approval to ensure that he or she fully understand the significance of the approval and the statement referred to in point (a)(1) of <u>CAO.A.025</u>
- (e) All findings in accordance with point <u>CAO.B.060</u> shall be confirmed in writing to the applicant organisation.
- (g) Before issuing the approval the competent authority shall close all be findings after the organisation has corrected them.

# GM1 CAO.B.045(a) Initial certification procedure

ED Decision 2020/002/R

#### FORMAL ACCEPTANCE OF MANAGEMENT STAFF

The approval by the competent authority of the CAE, containing in accordance with <u>CAO.A.025(a)(3)</u> the nominative list of <u>CAO.A.035(a)</u> and (b) persons, constitutes the formal notification of acceptance by the competent authority of this personnel.

# AMC1 CAO.B.045 Initial certification procedure

ED Decision 2020/002/R

#### **VERIFICATION OF COMPLIANCE**

- (a) In order to verify the organisation's compliance with the applicable requirements, the competent authority should conduct an audit of the organisation, including interviews of the personnel, and inspections carried out at the organisation's facilities.
- (b) The competent authority should only conduct such an audit if it is satisfied that the application and the supporting documentation are in compliance with the applicable requirements.
- (c) The audit should focus on the following areas:
  - (1) the management structure, including the names and qualifications of personnel required by points <u>CAO.A.035(b)</u>, and the adequacy of the organisation and its management structure;
  - (2) the personnel:
    - (i) the adequacy of the number of staff, and their qualifications and experience with regard to the intended terms of approval and the associated privileges;
    - (ii) the validity of licences and/or authorisations, as applicable;
  - (3) the quality system (or organisational review);

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- (4) the facilities and their adequacy regarding the organisation's scope of work;
- (5) the documentation required by Part-CAO, including:
  - (i) the verification that the procedures specified in the CAE comply with the applicable requirements; and
  - (ii) the verification that the accountable manager has signed the exposition statement.
- (d) If an application for an organisation certificate is refused, the applicant should be informed of the right of appeal that exists under national law.

# AMC2 CAO.B.045 Initial certification procedure

ED Decision 2020/002/R

#### **MAINTENANCE DATA**

The organisation is not required to continuously hold all the maintenance data. It is acceptable to have a procedure to ensure that the specific maintenance data required for a particular maintenance activity will be available before that maintenance takes place.

However, the organisation should be able to demonstrate its maintenance capability and find means to comply with <u>CAO.A.050(a)</u> when it does not hold all current applicable maintenance data before the approval.

# AMC1 CAO.B.045(c) Initial certification procedure

ED Decision 2020/002/R

An EASA Form 613 should be used for this activity (see <u>Appendix I to AMC1 CAO.B.045(c) and AMC1 CAO.B.055(b)</u>).

#### CAO.B.050 Issuance of the initial certificate

Regulation (EU) 2020/270

- (a) Where the competent authority has established that the applicant complies with point CAO.B.045, it shall issue the certificate, using the EASA Form 3-CAO template laid down in Appendix I and specifying the terms of approval.
- (b) The competent authority shall include the reference number of the CAO as specified in the EASA Form 3-CAO template laid down in Appendix I.

# CAO.B.055 Continuing oversight

Regulation (EU) 2019/1383

- (a) The competent authority shall establish and keep up-to-date, an oversight programme, specifying all CAOs to which it has issued a certificate and the dates at which it has audited and is scheduled to audit those CAOs.
- (b) The competent authority shall audit at periods not exceeding 24 months each CAO to which it has issued an approval. Those audits shall concentrate, in particular, on the changes to the organisation notified to it in accordance with the procedure specified in point (b) of point CAO.A.105.

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- (c) A relevant sample of the aircraft managed by the CAO, if the organisation is approved to do so, shall be surveyed at every 24-month period. The size of the sample shall be decided by the competent authority based on the result of prior audits and earlier product surveys.
- (d) The competent authority shall confirm in writing any finding during those audits to the CAO.
- (e) The competent authority shall record any findings during those audits, any actions required to close the findings and any recommendations issued.
- (f) The competent authority shall convey a meeting with the accountable manager of the CAO at least once every 24 months.

## AMC1 CAO.B.055 Continuing oversight

ED Decision 2020/002/R

At the successful conclusion of the audit(s), including verification of the CAE, an audit report form should be completed by the auditing surveyor including all recorded findings, closure actions and the recommendation. An EASA Form 613 should be used for this activity (see <a href="Appendix I to AMC CAO.B.045(c)">Appendix I to AMC CAO.B.045(c)</a> and CAO.B.055(b)).

A review of EASA Form 613 audit report form should be carried out by a competent independent person nominated by the competent authority. Satisfactory review of the audit form should be indicated by a signature on the audit form.

## AMC2 CAO.B.055 Continuing oversight

ED Decision 2020/002/R

#### **SUBCONTRACTED ACTIVITIES**

- (a) If a CAO subcontracts continuing airworthiness management tasks, all subcontracted organisations should also be audited by the competent authority at periods not exceeding 24 months to ensure that the subcontracted continuing airworthiness management tasks are carried out in compliance with Part-CAO, Part-M and Part-ML, as applicable.
- (b) If a CAO subcontracts specialised maintenance tasks, the competent authority should determine whether the subcontracted organisation needs to be audited and included in the oversight programme, taking into account the specific nature and complexity of the subcontracted activities and the results of previous oversight activities of the CAO. Consideration may also be given to subcontracted organisation holding an organisation approval or a certification to an industry standard.
- (c) For these audits, the competent authority inspector should ensure that he or she is accompanied throughout the audit by a senior technical member of the CAO.

NOTE: When a CAO subcontracts tasks, the competent authority should also ensure that the CAO has sufficient control over the subcontracted organisation.

# **CAO.B.060 Findings**

Regulation (EU) 2019/1383

- (a) When during audits or by any other means, evidence is found showing non-compliance to the Part-CAO requirements, the competent authority shall take the following actions:
  - (1) for Level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the Level 1

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- finding, the CAO approval, until successful corrective action has been taken by the organisation; and
- (2) for Level 2 findings, the competent authority shall grant a corrective action period of no more than 3 months, appropriate to the nature of the finding — in certain circumstances, at the end of this first period and subject to the nature of the finding, the competent authority can extend this 3-month period subject to a satisfactory corrective action plan.
- (b) Action shall be taken by the competent authority to suspend in whole or in part the approval in case of failure to comply within the timescale set out by the competent authority.

# AMC1 CAO.B.060(a)(1) Findings

ED Decision 2020/002/R

#### **LEVEL 1 FINDINGS**

Where a level 1 finding directly relates to an aircraft, the competent authority should inform the State in which the aircraft is registered.

For a level 1 finding related to maintenance, it may be necessary for the competent authority to ensure that further maintenance and re-certification of all affected products is accomplished, dependent upon the nature of the finding.

# CAO.B.065 Changes

Regulation (EU) 2019/1383

- (a) Upon receiving an application for a change in accordance with point (a) of point <u>CAO.A.105</u>, the competent authority shall verify the organisation's compliance with the applicable requirements before issuing the approval of the change.
- (b) The competent authority may indicate the conditions under which the CAO shall operate during the change unless the competent authority determines that the organisation's certificate shall be suspended because of the nature or extent of the changes.
- (c) For changes not requiring prior approval, the competent authority shall assess during the oversight activities that the CAO complies with the approved control procedure provided for in point (b) of point CAO.A.105 and complies with the applicable requirements.

# CAO.B.070 Suspension, limitation and revocation

Regulation (EU) 2019/1383

The competent authority shall:

- (a) suspend an approval on reasonable grounds in the case of a potential safety threat; or
- (b) suspend, revoke or limit an approval pursuant to point <u>CAO.B.060</u>.



# **APPENDICES TO ANNEX VD (PART-CAO)**

# Appendix I — Combined airworthiness organisation (CAO) certificate - EASA Form 3-CAO

Regulation (EU) 2020/270

- (a) Within the approval class(es) and rating(s) established by the competent authority, the scope of work specified in the CAE defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisations scope of work are matching.
- (b) An aircraft rating, in relation to the maintenance privileges, means that the CAO may carry out maintenance on the aircraft and any component (including engines), in accordance with aircraft maintenance data or, if agreed by the competent authority, in accordance with component maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such aircraft-rated CAO may temporarily remove a component for maintenance in order to improve access to that component except when such removal creates the need for additional maintenance not eligible for the requirements of point (b). This will be subject to a control procedure in the CAE to be approved by the competent authority.
- (c) An engine rating (turbine, piston or electrical) means that the CAO may carry out maintenance on the uninstalled engine and engine components, in accordance with engine maintenance data or, if agreed by the competent authority, in accordance with component maintenance data, only whilst such components are fitted to the engine. Nevertheless, such engine-rated CAO may temporarily remove a component for maintenance in order to improve access to that component except when such removal creates the need for additional maintenance not eligible for the requirements of point (c). An engine-rated CAO may also carry out maintenance on an installed engine during base and line maintenance subject to a control procedure in the CAE to be approved by the competent authority.
- (d) A component rating (other-than-complete engines) means that the CAO may carry out maintenance on uninstalled components (excluding complete engines) intended for fitment to the aircraft or engine. This CAO may also carry out maintenance on an installed component (other-than-complete engines) during base and line maintenance or at an engine maintenance facility subject to a control procedure in the CAE to be approved by the competent authority.
- (e) An non-destructive testing (NDT) rating is a self-contained rating not necessarily related to a specific aircraft, engine or other component. The NDT rating is only necessary for a CAO that carries out NDT as a particular task for another organisation. A CAO approved with an aircraft, engine or component rating may carry out NDT on products they are maintaining subject to the CAE containing NDT procedures, without the need for an NDT rating.

Page 1 of 2

# [MEMBER STATE (\*)] A Member of the European Union (\*\*)

#### **COMBINED AIRWORTHINESS ORGANISATION CERTIFICATE**

Reference: [MEMBER STATE CODE (\*)].CAO.[XXXX]

Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency and to Regulation (EU) No 1321/2014 and subject to the conditions specified below, the [COMPETENT AUTHORITY OF THE MEMBER STATE (\*)] hereby certifies:

#### [COMPANY NAME AND ADDRESS]

as a combined airworthiness organisation in compliance with Section A of Annex Vd (Part-CAO) to Regulation (EU) No 1321/2014.

#### CONDITIONS:

- (a) this approval is limited to that specified in the terms of approval attached, and in the 'Scope of work' Section of the approved combined airworthiness exposition, as referred to in Section Vd (Part-CAO) to Regulation (EU) No 1321/2014; and
- (b) this approval requires compliance with the procedures specified in the approved combined airworthiness exposition; and
- (c) this approval is valid whilst the approved combined airworthiness organisation remains in compliance with Annex Vd (Part-CAO) to Regulation (EU) No 1321/2014; and
- (d) where the approved combined airworthiness organisation contract out, under their quality system, the service of one or several organisations, this approval remains valid subject to such organisation(s) fulfilling applicable contractual obligations; and
- (e) subject to compliance with the foregoing conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of original issue of the approval certificate:
Date of this revision of the approval certificate:
Revision No:
Signed:
For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE (*)]

- \*) or EASA if EASA is the competent authority
- (\*\*) delete for non-EU Member States or EASA.

EASA Form 3-CAO, Issue 1

Page 2 of 2

#### **COMBINED AIRWORTHINESS ORGANISATION TERMS OF APPROVAL**

Reference: [MEMBER STATE CODE (\*)].CAO.XXXX

Organisation: [COMPANY NAME AND ADDRESS]

CLASS	RATING	PRIVILEGES(***)			
AIRCRAFT (**)	Aeroplanes — other-than-complex	□ Maintenance			
	motor-powered aircraft (**)	☐ Continuing-airworthiness management			
		☐ Airworthiness review			
		□ Permit to fly			
	Aeroplanes up to 2 730 kg maximum	□ Maintenance			
	take-off mass (MTOM) (**)	☐ Continuing-airworthiness management			
		☐ Airworthiness review			
		□ Permit to fly			
	Helicopters — other-than-complex	□ Maintenance			
	motor-powered aircraft (**)	☐ Continuing-airworthiness management			
		☐ Airworthiness review			
		□ Permit to fly			
	Helicopters up to 1 200 kg MTOM,	□ Maintenance			
	certified for a maximum of up to 4	☐ Continuing-airworthiness management			
	occupants (**)	□ Airworthiness review			
		□ Permit to fly			
	Airships (**)	□ Maintenance			
		☐ Continuing-airworthiness management			
		☐ Airworthiness review			
		□ Permit to fly			
	Balloons (**)	□ Maintenance			
		☐ Continuing-airworthiness management			
		☐ Airworthiness review			
		□ Permit to fly			
	Sailplanes (**)	□ Maintenance			
		☐ Continuing-airworthiness management			
		☐ Airworthiness review			
		☐ Permit to fly			
COMPONENTS (**)	Complete turbine engines (**)	☐ Maintenance			
	Complete piston engines (**)				
	Electrical engines (**)				
	Components other than complete				
	engines (**)				
SPECIALISED	Non-destructive testing (NDT) (**)	□ NDT			
SERVICES (**)					

#### **LIMITATIONS**

(to be included only for organisations rated for aeroplanes, helicopters or complete engines, if they only have one person planning and performing all maintenance tasks)

The following maintenance is excluded from the scope of work (\*\*\*):

- maintenance on aeroplanes equipped with a turbine engine;
- maintenance on helicopters equipped with a turbine engine or with more than one piston engine; and
- maintenance on complete piston engines of 450 HP and above, and on complete turbine engines.

List of organisation(s) working under a quality system (***)	
These terms of approval are limited to the products, parts and appliances, and to the activities specifi 'Scope of work' Section of the approved combined airworthiness exposition, Combined airworthiness exposition reference:	
Date of original issue of the exposition:	
Date of last revision approved:Revision No:	
Signed:	
For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE (*)]	

- (\*) or EASA if EASA is the competent authority
- (\*\*) delete as appropriate if the organisation is not approved.
- (\*\*\*) complete as appropriate

EASA Form 3-CAO, Issue 1

# **APPENDICES TO AMC AND GM TO ANNEX VD (PART-CAO)**

# Appendix I to AMC1 CAO.B.045(c) and AMC1 CAO.B.055 — EASA Form 613

ED Decision 2021/009/R

Part-CAO APPROVAL RECOMMENDATION REPORT	EASA FORM 613
Part 1: General	
Name of organisation:	
Approval reference:	
Requested approval rating:	
EASA Form 3-CAO dated*:	
Other approvals held (if applicable):	
Address of facility audited:	
Audit period: from	to
Date(s) of audit(s):	
Audit reference(s):	
Persons interviewed:	
Competent authority inspector(s):	Signature(s):
Competent authority office:	Date of EASA Form 613 Part 1 completion:
	*delete where applicable
	«pp»



Part-CAO APPI	ROVAL RECOMMENDATION REPORT EASA FORM 613					
Part 2: Part-CAO Compliance audit review						
The five columns may be labelled and used as necessary to record the approval product line or facility,						
including the subcontractor's, reviewed. Against each column used regarding the following Part-CAO points,						
please either ti	ick ( $$ ) the box if satisfied with $c$	ompliance or cr	oss (X) the	box if not sa	tisfied with o	compliance,
	e reference of the Part 4 finding					
	icable but it was not reviewed.		,	•		,
Point	Subject					
	<b>-</b>					
M.A.201(c)	Maintenance responsibility					
ML.A.201(c)	Wallice Tesponsibility					
IVIL.A.ZUI(C)						
A A A 402(L)	A:		_			
M.A.403(b)	Aircraft defects					
ML.A.403(b)						
CAO.A.017	Means of compliance					
CAO.A.020	Terms of approval					
	• •	<u> </u>			<u> </u>	
CAO.A.025	Combined airworthiness					
	exposition (see Part 3)					
	exposition (see Fair 5)					
CAO A 030	Facilities		$\neg$			
<u>CAO.A.030</u>	Facilities					
			_			
CAO.A.035	Personnel requirements					
CAO.A.040	Certifying staff					
CAO.A.045	Airworthiness review staff					
					· · · · · · · · · · · · · · · · · · ·	
CAO.A.050	Components, equipment and tools					
	100.5				<u> </u>	
CAO.A.055	Maintenance data and					
CAO.A.033	work orders		$\neg$			
			_			
CAO.A.060	Maintenance standards					
CAO.A.065	Aircraft certificate of release					
	to service					
CAO.A.070	Component certificate of					
	release to service					
CAO.A.075	Continuing-airworthiness					
<u> </u>	management					
	management					
CAO A 000	Continuing airworthings					
CAO.A.080	Continuing-airworthiness		$\neg$			
	management data					
			$\neg$			
CAO.A.085	Airworthiness review					
			_			
CAO.A.090	Record-keeping					



CAO.A.095	Privileges of the organisation	
CAO.A.100	Quality system and organisational review	
CAO.A.105	Changes to the organisation	
Competent authority inspector(s):		Signature(s):
Competent authority office:		Date of EASA Form 613 Part 2 completion:

	PPROVAL RECOMMENDATION REPORT EASA FORM 613
	pliance with the combined airworthiness exposition (CAE) r tick ( $$ ) the box if satisfied with compliance, and
	reference of the Part 4 finding; or enter N/A if an item is not applicable; or N/R if it is applicable
but it was	ot reviewed.
Part A	GENERAL DESCRIPTION
A.1	Statement by the accountable manager
A.2	General presentation of the organisation
A.3	Description and location of the facilities
A.4	Scope of work
A.5	Exposition amendments and changes to the organisation
A.6	Procedure for alternative means of compliance
A.7	Management personnel
A.8	Organisation chart
A.9	Manpower resources
A.10	List of certifying staff
A.11	List of staff responsible for the development and approval of the AMP
A.12	List of airworthiness review staff
A.13	List of staff responsible for the issuance of permits to fly
Part B	GENERAL PROCEDURES
B.1	Quality (or organisational review) system
B.2	Audit plan (or frequency and content of organisational review)
B.3	Monitoring of maintenance contracts
B.4	Qualification, assessment and training of staff
B.5	One-off certification authorisation
B.6	Limited certification authorisation
B.7	Subcontracting

		ECOMMENDATION REPORT EASA FORM 613			
		n the combined airworthiness exposition (CAE)			
Please either tick ( $$ ) the box if satisfied with compliance; or cross (X) if not satisfied with compliance, and					
specify the reference of the Part 4 finding; or enter N/A if an item is not applicable; or N/R if it is applicable but it was not reviewed.					
B.8	l	Maintenance data and continuing airworthiness management data			
B.9		Records management and retention			
B.10		Carrying out the airworthiness review			
B.11		Conformity with approved flight conditions			
B.12		Issue of the permit to fly			
Part C	MAINTEN	NANCE PROCEDURES			
C.1		Maintenance — general			
C.2		Work order acceptance			
C.3		Components, equipment, tools and material (supply, acceptance, segregation, storage, calibration, etc.)			
C.4		Maintenance facility (selection, organisation, cleanliness and environmental			
C.5		limitations) Maintenance accomplishment and maintenance standards			
C.6		Prevention of maintenance error			
C.7		Critical maintenance tasks and error-capturing method			
C.8		Fabrication			
C.9		Certifying staff responsibilities and maintenance release			
C.10		Defects arising during maintenance			
C.11		Maintenance away from approved location			
C.12		Procedure for component maintenance under aircraft or engine rating			
C.13		Procedure for maintenance on installed engine (or component) under engine (or component) rating			
C.14		Special procedures (specialised tasks, non-destructive testing (NDT), engine running, etc.)			
C.15		Issue of ARC under maintenance privilege			
Part D	CONTINU	JING AIRWORTHINESS MANAGEMENT PROCEDURES			
D.1		Continuing airworthiness management — general			
D.2		MEL (and CDL) application			
D.3		AMP development, control and periodic review			
D.4		Airworthiness directives and other mandatory airworthiness requirements			
D.5		Modifications and repairs			
D.6		Pre-flight inspection			
D.7		Defects			
D.8		Establishment of contracts and work orders for the maintenance			
D.9		Coordination of maintenance activities			



Part-CAO AP	PROVAL R	ECOMMENDATION REPORT EASA FORM 613			
Part 3: Compliance with the combined airworthiness exposition (CAE)					
Please either tick ( $$ ) the box if satisfied with compliance; or cross (X) if not satisfied with compliance, and					
specify the reference of the Part 4 finding; or enter N/A if an item is not applicable; or N/R if it is applicable					
but it was no	t reviewed	l.			
D.10		Mass and balance statement			
D.11		Issue of ARC or ARC recommendation			
D.12		ARC extension			
D.13		Maintenance check flights			
Part E	SUPPORT	TING DOCUMENTS			
E.1		Sample documents			
E.2		List of subcontracted organisations			
E.3		List of organisations contracted by the CAO			
E.4		Aircraft technical log system (if applicable)			
E.5		List of the currently approved alternative means of compliance			
E.6		Copy of contracts for subcontracted continuing airworthiness tasks			
•					
CAE reference	ce:	CAE amendment:			
Competent a	uthority a	udit staff: Signature(s):			
Competent a	uthority o	ffice: Date of EASA Form 613 Part 3 completion:			



Part-CAO A	PPROVAL RECOMMENDATION REPORT E	ASA FC	)RN	1 613		
Part 4: Find	ings regarding Part-CAO compliance status					
Each level 1	Each level 1 and 2 finding should be recorded whether it has been rectified or not, and should be identified					
	cross reference to the Part 2 requirement. All non-re		fin	dings shou	ld be copie	ed in writing
to the orga	nisation for them to take the necessary corrective act	ion.				
Part	Audit reference(s):		L	Correctiv	e action	
2 or 3	Findings		е	Date	Date	Reference
ref.			٧	due	closed	
			е			
			Ι			
İ						



Part-CAO APPROVAL RECOMMENDATION REPORT EASA FORM 613
Part 5: Part-CAO approval or continued approval or change recommendation*
Name of organisation:
Approval reference:
Audit reference(s):
The following Part-CAO terms of approval are recommended for this organisation:
Or, it is recommended that the Part-CAO terms of approval specified in EASA Form 3-CAO referenced
Name of recommending competent authority inspector:
Signature of recommending competent authority inspector:
Competent authority office:
Date of recommendation:
EASA Form 613 review: Date:
*delete as appropriate

## Appendix II to AMC1 CAO.A.100(f) — Organisational review

ED Decision 2020/002/R

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, privilege to perform airworthiness reviews, etc.), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the CAE:

- (a) Identification of the person responsible for the organisational review programme

  By default, this person should be the accountable manager, unless he or she delegates this responsibility to (one of) the <u>CAO.A.035(b)</u> person(s).
- (b) Identification and qualification criteria for the person(s) responsible for performing the organisational reviews
  - These persons should have a thorough knowledge of the regulations and of the organisation procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the competent authority).
- (c) Elaboration of the organisational review programme
  - (1) Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the CAE should be addressed.
  - (2) A schedule for the accomplishment of the checklist items. Each item should be checked at least every 12 months. The organisation may choose to conduct one full review annually or to conduct several partial reviews.
- (d) Performance of organisational reviews

Each checklist item should be answered using an appropriate combination of:

- review of records, documentation, etc.;
- sample check of aircraft under contract or being maintained under a work order;
- interview of personnel involved;
- review of discrepancies and internal reports (e.g. notified difficulties when using current procedures and tools, systematic deviations from procedures, etc.);
- review of complaints filed by customers.
- (e) Management of findings and occurrence reports

All findings should be recorded and notified to the affected persons.

- (1) All findings that lower the safety standard and seriously hazard flight safety should be immediately notified to the competent authority and all necessary actions on aircraft in service should be immediately taken.
- (2) All occurrence reports should be reviewed with the aim of continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g. notified difficulties when using current procedures

- and tools, systematic deviations from procedures, unsafe behaviours, etc.), and dismissed alerts that, had they been recognised and appropriately managed before the event, could have resulted in the undesired event being prevented.
- (3) Corrective and preventive actions should be approved by the person responsible for the organisational review programme and implemented within a specified time frame.
- (4) Once the person responsible for the organisational review programme is satisfied that the corrective action is effective, the closure of the finding should be recorded along with a summary of the corrective action.
- (5) The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review programme.

Below is a typical example of a simplified organisational review checklist, to be adapted as necessary to cover the CAE procedures used and the privileges held by the organisation:

#### 1. Scope of work

- Check that all aircraft under contract are covered in EASA Form 3-CAO.
- Check that the scope of work in the CAE is consistent with EASA Form 3-CAO.
- Check that no work has been performed outside the scope of EASA Form 3-CAO and the CAE.
- Is it justified to retain in the approved scope of work aircraft types for which the organisation has no longer aircraft under contract?

#### 2. Maintenance data

- Check that the maintenance data is present and up to date for the ongoing maintenance activity.
- Check that no change has been made to the maintenance data from the design approval holder (DAH) without the DAH being notified.

#### 3. Equipment and tools

- Check the availability of maintenance equipment and tools against the lists in the CAE and check if they are still appropriate with regard to the maintenance data.
- Check tools for proper calibration (sample check).

#### 4. Stores

- Do the stores meet the criteria of the CAE procedures?
- Check by sampling some items in the store for presence of proper documentation and any overdue items.

#### 5. Certification of maintenance

- Has maintenance on products and components been properly certified?
- Have implementations of modifications/repairs been carried out with appropriate approval of such modifications/repairs (sample check)?

#### 6. Maintenance contracted

Sample check of maintenance records:

- Existence and adequacy of the work order;
- Data received from the maintenance organisation:
  - valid CRS including any deferred maintenance;
  - list of removed and installed components and copy of the associated EASA Form 1 or equivalent.
- Obtain a copy of the current approval certificate (EASA Form 3) of the maintenance organisations contracted.

#### 7. Maintenance subcontracted

Check that subcontractors for specialised services are properly controlled by the organisation.

#### 8. Relations with the owners/operators — maintenance

- Has maintenance been carried out with suitable work orders?
- When a maintenance contract has been signed with an owner/operator, have the obligations of the contracts been respected by both parties?

#### Relations with the owners/operators — continuing airworthiness management

- Has a contract (in accordance with <u>Appendix I to Part-M</u> or Appendix I to Part-ML) been signed with each external owner/operator, covering all the aircraft whose airworthiness is managed by the CAO?
- Have the owners/operators under contract fulfilled their obligations identified in the contract? As appropriate:
  - Are the pre-flight checks correctly performed? (interview of pilots)
  - Is the technical log or equivalent correctly used (record of flight hours/cycles, defects reported by the pilot, identification of what maintenance is next due, etc.)?
  - Have flights occurred with overdue maintenance or with defects not properly rectified or deferred? (sample check from the aircraft records)
  - Has maintenance been performed without notifying the CAO (sample check from the aircraft records, interview of the owner/operator)?

#### 10. Maintenance records

- Have the maintenance actions been properly recorded?
- Perform a sample check of maintenance records (including EASA Form 1 or equivalent, and certificates of conformity) to ensure completeness and storage during the appropriate periods.

#### 11. Continuing airworthiness records

- Perform a sample check of continuing airworthiness records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

#### 12. Airworthiness review and permit to fly records

Perform a sample check of airworthiness review and permit to fly records to ensure completeness and storage during the appropriate periods.

#### 13. Airworthiness situation of the fleet

Does the continuing airworthiness status (AD, maintenance programme, life-limited components, deferred maintenance, ARC validity) show any expired items? If so, are the aircraft grounded?

#### 14. Aircraft maintenance programme (AMP) development and control

- For Part-ML aircraft, ensure that the AMP has been approved by the CAO and has been subject to annual review.
- For Part-M aircraft, check that all revisions to the DAH instructions for continuing airworthiness (ICA), since the last review, have been (or are planned to be) incorporated in the maintenance programme, unless otherwise approved by the competent authority.
- Has the maintenance programme taken into account all modifications or repairs?
- Have all maintenance programme amendments been approved at the right level (CAO, competent authority or indirect approval)?
- Does the status of compliance with the maintenance programme reflect the latest approved maintenance programme?
- How has the organisation managed:
  - the tolerances (variations) to the AMP intervals?
  - the deviations from the maintenance tasks to be performed in accordance with the AMP?
- Have the deviations from the DAH ICA in the development of the AMP been properly justified and recorded?

#### 15. ADs (and other safety measures mandated by the competent authority or EASA)

- Have all ADs issued since the last review been incorporated into the AD status?
- Does the AD status correctly reflect the AD content: applicability, compliance date, periodicity, etc.? (sample check on ADs)

#### 16. Modifications/repairs

- Are all modifications/repairs listed in the corresponding status approved in accordance with <u>M.A.304</u> or <u>ML.A.304</u>? (sample check on modifications/repairs)
- Have all the modifications/repairs which have been installed since the last review been incorporated in the corresponding status? (sample check from the aircraft/component logbooks or equivalent)

#### 17. Personnel

- Check that the current accountable manager and other nominated persons are correctly identified in the approved CAE.
- If the number of personnel has decreased or if the activity has increased, check that the organisation has still sufficient and adequate staff.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.
- Check that the staff has been trained, as necessary, to cover changes in:



Annex Vd (Part-CAO)

APPENDICES TO AMC AND GM TO

ANNEX Vd (Part-CAO)

- regulations;
- competent authority publications;
- the CAE and associated procedures;
- the approved scope of work;
- maintenance data (significant ADs, ICA amendments, etc.).

#### 18. Occurrence reporting procedures

Check that reporting is properly performed, actions taken and recorded.

#### 19. Airworthiness review and permit to fly procedures

- Have airworthiness reviews been properly performed and the airworthiness review certificate or recommendation been properly issued?
- Have permits to fly been properly issued and the approved flight condition been complied with?

Annex Vd (Part-CAO)

APPENDICES TO AMC AND GM TO

ANNEX Vd (Part-CAO)

# Appendix III to AMC1 CAO.A.015 — EASA Form 2

ED Decision 2020/002/R

The provisions of Appendix IX to AMC M.A.602 and AMC M.A.702 EASA Form 2 apply.