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## Regulation (EU) 1321/2014 Annex Vb Part-ML and Non-Complex Motor Powered Aircraft

#### Introduction

This IAN is a summary of the key elements in Part ML concerning non-complex motor powered aircraft, in the Regulation (EU) No <u>1321/2014</u> as amended by Regulation (EU) No 2020/270.

#### Part-ML

- 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 2730 kg maximum take-off mass (MTOM) or less;
  - (2) rotorcraft of 1200 kg MTOM or less, certified for a maximum of up to 4 occupants;
  - (3) other ELA2 aircraft.

#### Definitions

Article 2 of (EU) No <u>1321/2014</u> as amended by (EU) No <u>2015/1088</u> contains a list of definitions related to Non-Complex Motor Powered Aircraft.

**'Large aircraft'** means an aircraft, classified as an aeroplane with a maximum take-off mass of more than 5 700 kg, or a multi-engined helicopter;

#### 'Complex motor-powered aircraft' shall mean:

- (i) an aeroplane:
- with a maximum certificated take-off mass exceeding 5 700 kg, or
- certificated for a maximum passenger seating configuration of more than nineteen, or
- certificated for operation with a minimum crew of at least two pilots, or
- equipped with (a) turbojet engine(s) or more than one turboprop engine, or
- (ii) a helicopter certificated:
- for a maximum take-off mass exceeding 3 175 kg, or
- for a maximum passenger seating configuration of more than nine, or
- for operation with a minimum crew of at least two pilots, or
- (iii) a tilt rotor aircraft;

'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 3 for hot air balloons, 1 050 m 3 for gas balloons, 300 m 3 for tethered gas balloons;

(iv) an airship designed for not more than 4 occupants and a maximum design lifting gas or hot air volume of not more than 3 400 m 3 for hot air airships and 1 000 m 3 for gas airships;

'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 airship;
- (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.

'LSA aircraft' means a light sport aeroplane which has all of the following characteristics:

- 1. a Maximum Take-Off Mass (MTOM) of not more than 600 kg;
- 2. a maximum stalling speed in the landing configuration (VS0) of not more than 45 knots Calibrated Airspeed (CAS) at the aircraft's maximum certified take-off mass and most critical centre of gravity;
- 3. a maximum seating capacity of no more than two persons, including the pilot;
- 4. a single, non-turbine engine fitted with a propeller;
- 5. a non-pressurised cabin.

'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;

'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).

'owner' means the person responsible for the continuing airworthiness of the aircraft, including, alternatively:

(i) the registered owner of the aircraft;

#### Note The operator may be a commercial ATO/DTO or ATO/DTO

The following table provides a summary of Part-ML main provisions and alleviations established in ML.A.201, ML.A.302, ML.A.801 and ML.A.901.

	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 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	

\*: A CAMO/CAO(-CAM) is not required but the owner may decide to contract a CAMO/CAO(-CAM). \*\*: in the limit of their privileges

\*\*\*: together with the 100-h/annual inspection

#### Part-ML Accountability

#### Responsibilities

ML.A.201 clearly refers to the responsibilities of the owner for continuing airworthiness of the aircraft.

These responsibilities can be contracted or shared with Part-CAO/CAMO or Part-145 organisations as applicable.

GM1 ML.A.201 Responsibilities illustrates clearly who can discharge the responsibilities for continuing airworthiness, maintenance, Airworthiness Reviews, ARCs and AMPs.

The continuing airworthiness arrangement between the owner and the contracted CAO/CAMO shall be in accordance with Appendix I to Part-ML.

A template for Appendix I to Part-ML may be found at: <u>http://www.transport.gov.mt/aviation/aircraft/airworthiness/airworthiness-forms</u>.

#### **Aircraft Maintenance Programme**

#### ML.A.302 states:

- (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:
  - 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.

The detailed technical requirements for aircraft maintenance programme are specified in the new points of ML.A. 302(c) and (i). This is also covered in IAN 03.

#### MLA.302 (d) states:

#### A MIP:

- (1) shall contain the following inspection intervals:
  - (a) for aeroplanes, touring motor gliders ('TMGs') and balloons, every annual or 100-h 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;

(iii) 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;

(iv) for hot-air balloons:

envelope, burner, basket, fuel containers, equipment and instruments;

(v) 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.

# **EASA Form AMP** can be used for the development of an AMP under Part-ML. The template can be found in **AMC2 ML.A.302**

#### Changes and Repairs Date

#### ML.A.304 Data for Modifications and repairs

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.

#### Standard Changes (SC)

Standard Changes may be carried out in accordance with <u>Certification Specifications for Standard Changes and Standard Repairs (CS-STAN)</u>, pursuant to <u>ED 2015/016/R</u>.

CS-STAN defines detailed acceptable methods, techniques and practices, including requirements for the marking of the parts and instruction for continued airworthiness in order to implement Standard Changes without the need for a design approval for:

- (i) Aeroplanes of 5700 kg Maximum Take-Off Mass (MTOM) or less;
- (ii) Rotorcraft of 3175 kg MTOM or less;
- (iii) Sailplanes and powered sailplanes and airships as defined in ELA1 and ELA2

#### NOTE:

## In addition to the condition of 21.A.90B, for each SC, the CS may further restrict its applicability to certain aircraft or to come areas of an aircraft or to certain aircraft operations.

Guidance on the implementation of SC can be found in <u>AMC M.A.801</u> or AMC ML.A.801 of the AMC to Part-M/ML.

CAMO's and Maintenance Organisations that have aircraft within the above enlisted criterion within their scope of approval shall amend the Part CAMO CAME Section 1.7/ (Part-145 MOE Section 2.9 or Part CAO CAE (whichever applicable) to meet the requirements set by <u>AMC M.A.801</u> or AMC MLA.801

Documentation of preparation and embodiment of the SC is executed by an EASA Form 123. On completion of the SC, an Aircraft Logbook entry referring to EASA Form 123 must be executed. Both EASA Form 123 and the maintenance release to service are required to be signed by the same person (the certifying staff). Only natural or legal persons entitled to release to service an aircraft after maintenance in accordance with Part-ML or Part-145 are considered as an eligible installer responsible for the embodiment of a SC/SR when in compliance with applicable requirements.

Any restriction or limitation applicable due to the embodiment of the SC is included in the aircraft manuals or records, as necessary, and in the EASA Form 123.

#### A template of EASA Form 123 is found in AMC1 ML.A.801.

The person/organization responsible for the continuing airworthiness of the aircraft shall ensure that the manuals, limitations, supplements, ICA's and other information referenced in the EASA Form 123 is transcribed/forwarded or inserted in the applicable documentation (AFM, AMP/ Weight and Balance schedule etc.).

#### NOTE:

If specific data issued by the TC holder exists for the changes as described in CS-STAN subpart B, the TC holder data takes precedence over a SC. Where the change conflicts with the TC holder data, CS-STAN should not be followed and the change should be approved following Part-21 Subparts D or M.

Equipment installed as part of a SC cannot be used to eliminate or reduce the existing airworthiness limitations and operational limitations of the aircraft.

#### Part-ML Subpart E - Components

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)		
Components maintained in accordance with component maintenance data (data issued by the component manufacturer)				
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>(iv)Aircraft-rated maintenance organisations; and/or</li> <li>(v) 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>		

#### Controlled storage of unserviceable components

Independent certifying staff should send unserviceable components to an approved maintenance organization or under the custody of owner under the conditions specified in M.A.504(b).

#### Part-ML Subpart H – 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.

#### Limited Pilot-owner maintenance

#### ML.A.803 states:

(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.

Pilot-owner authorization is covered by ML.A.803 which states the qualification of the Pilot-owner and details of how maintenance is logged in the aircraft logbooks.

Appendix II to Part-ML and its AMC contains basic principles related to limited pilot-owner maintenance (competence and responsibility, tasks, performance of the maintenance).

The scope of the limited pilot-owner maintenance shall be specified in the aircraft maintenance programme.

The names of all pilot-owners competent and designated to perform Pilot-owner maintenance shall be listed in the maintenance programme.

#### **Certificate of Release to Service**

- (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;
  - 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.

#### AMC M.A.802(e) Aircraft certificate of release to service

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 Part-M 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'.

#### Appendix III to Part-ML - Complex maintenance tasks not to be released by the Pilot-owner

This Appendix 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:

#### **CRS Statement**

When the aircraft release to service is issued under Part-M Subpart H by a Part-CAO or independent certifying staff, 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 Part-M and in respect to that work the aircraft is considered ready for release to service'.

When the aircraft release to service is issued by a Pilot-owner a certificate of release to service should contain the following statement:

b) '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'.

#### Part-ML Subpart I - Airworthiness Review Certificate

#### Issue of ARC

- (a) An ARC is issued in accordance with Appendix IV (EASA Form 15c) 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) 2018/395<sup>36</sup> or, in the case of sailplanes, not following Subpart DEC of Annex II (Part-SAO) to Regulation (EU) 2018/1976<sup>37</sup>, 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.

#### Qualification of airworthiness review staff shall be in accordance with ML.A.904

#### Part-ML makes reference to Part-CAO which is Annex Vd of Regulation EU No 1321/2014

#### Part-CAO – Combined Airworthiness Organisation

A combined airworthiness organisation (CAO) is an approval for the maintenance and continuing airworthiness management of aircraft and components for installation thereon 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.