

## II

(Non-legislative acts)

## REGULATIONS

**COMMISSION REGULATION (EU) 2015/1039****of 30 June 2015****amending Regulation (EU) No 748/2012 as regards flight testing****(Text with EEA relevance)**

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/EC <sup>(1)</sup>, and in particular Articles 5(5) and 7(6) thereof,

Whereas:

- (1) Commission Regulation (EU) No 748/2012 <sup>(2)</sup> should be amended in order to regulate, as part of the flight conditions, the competence and experience for pilots and for lead flight test engineers, depending on the complexity of the flight tests performed and of the aircraft, with a view to increasing safety and enhancing the harmonisation of the competency and experience requirements for flight test crew members within the Union.
- (2) Requirements for production and design organisations conducting flight testing, a requirement to have a flight test operations manual defining the organisation's policies and the necessary procedures in relation to flight test should also be introduced, so as to promote the safe conduct of flight testing. That manual should include policies and procedures for crew composition and competence, presence on board of persons other than crew members, risk and safety management, identification of instruments and equipment required to be carried.
- (3) Commission Regulation (EC) No 2042/2003 <sup>(3)</sup> has been recast in the interest of clarity. Since the EASA Form 15a, as laid down in the Appendix II to the Annex I (Part 21) to Regulation (EU) No 748/2012, refers to Regulation (EC) No 2042/2003, it is necessary to update that reference.
- (4) It is necessary to provide sufficient time for the aeronautical industry and the Member States to adapt to those requirements. Therefore, appropriate transitional provisions should be provided for. For certain amendments, however, a specific deferred application date should be provided in light of the nature of those amendments.
- (5) The measures provided for in this Regulation are based on the opinion issued by the Agency in accordance with Article 19(1) of Regulation (EC) No 216/2008.
- (6) The measures provided for in this Regulation are in accordance with the opinion of the European Aviation Safety Agency Committee, established by Article 65 of Regulation (EC) No 216/2008,

<sup>(1)</sup> OJ L 79, 19.3.2008, p. 1.

<sup>(2)</sup> 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).

<sup>(3)</sup> 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 (OJ L 315, 28.11.2003, p. 1).

HAS ADOPTED THIS REGULATION:

*Article 1*

**Amendment**

Annex I (Part 21) to Regulation (EU) No 748/2012 is amended in accordance with the Annex to this Regulation.

*Article 2*

**Transitional provisions**

1. Member States that at 21 July 2015 issued national licences for flight test crew members other than pilots may continue to do so in accordance with their national law until 31 December 2017. The holders of those licences may continue to exercise their privileges until that date.
2. After 31 December 2017, applicants for or holders of a permit to fly may continue to use the services of pilots engaged in Category Three or Four flight tests referred to in Appendix XII to Annex I to Regulation (EU) No 748/2012 and of flight test engineers that were conducting flight test activities in accordance with the applicable rules of national law before that date. Any such use shall remain limited to the scope of functions of the flight test crew members as established before 31 December 2017.

The scope of functions of the flight test crew member shall be established by the applicant for or holder of a permit to fly that uses or plans to use their services, based on the flight test crew members' flight test experience and training, and on the relevant records of the applicant for or the holder of a permit to fly. That scope of functions of a flight test crew member shall be made available to the competent authority.

Any addition or any other amendment to the scope of the functions established for these flight test crew members by the applicant for or holder of a permit to fly that uses or plans to use their services shall comply with the requirements of Appendix XII to Annex I to Regulation (EU) No 748/2012.

3. Until 31 December 2015, the competent authorities may continue to issue the airworthiness review certificate EASA Form 15a, as laid down in Appendix II to Annex I to Regulation (EU) No 748/2012, in force prior to 21 July 2015. Certificates issued before 1 January 2016 remain valid until they are changed, suspended or revoked.

*Article 3*

**Entry into force and application**

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 21 July 2015.

However:

- (a) points 2 and 3 of the Annex shall apply from 1 January 2016; to the extent reference is made to Appendix XII to Annex I to Regulation (EU) No 748/2012, point (b) applies;
- (b) point 6 of the Annex as regards point D of Appendix XII shall apply from 1 January 2018, without prejudice to requirements already resulting from the Annex I (Part-FCL) to Commission Regulation (EU) No 1178/2011 <sup>(1)</sup>.

<sup>(1)</sup> Commission Regulation (EU) No 1178/2011 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).

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

Done at Brussels, 30 June 2015.

*For the Commission*

*The President*

Jean-Claude JUNCKER

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## ANNEX

Annex I (Part 21) to Regulation (EU) No 748/2012 is amended as follows:

(1) in the table of contents the following entry is added:

‘Appendix XII — Categories of flight tests and associated flight test crew qualifications 85’;

(2) in point 21.A.143 (a), the following point 13 is added:

‘13. if flight tests are to be conducted, a flight test operations manual defining the organisation’s policies and procedures in relation to flight test. The flight test operations manual shall include:

- (i) a description of the organisation’s processes for flight test, including the flight test organisation involvement into the permit to fly issuance process;
- (ii) crewing policy, including composition, competency, currency and flight time limitations, in accordance with Appendix XII to this Annex I (Part 21), where applicable;
- (iii) procedures for the carriage of persons other than crew members and for flight test training, when applicable;
- (iv) a policy for risk and safety management and associated methodologies;
- (v) procedures to identify the instruments and equipment to be carried;
- (vi) a list of documents that need to be produced for flight test.’;

(3) in point 21.A.243, point (a) is replaced by the following:

‘(a) The design organisation shall furnish a handbook to the Agency describing, directly or by cross-reference, the organisation, the relevant procedures and the products or changes to products to be designed. If flight tests are to be conducted, a flight test operations manual defining the organisation’s policies and procedures in relation to flight test shall be furnished. The flight test operations manual shall include:

- (i) a description of the organisation’s processes for flight test, including the flight test organisation involvement into the permit to fly issuance process;
- (ii) crewing policy, including composition, competency, currency and flight time limitations, in accordance with Appendix XII to this Annex I (Part 21), where applicable;
- (iii) procedures for the carriage of persons other than crew members and for flight test training, when applicable;
- (iv) a policy for risk and safety management and associated methodologies;
- (v) procedures to identify the instruments and equipment to be carried;
- (vi) a list of documents that need to be produced for flight test.’;

(4) in point 21.A.708 (b), point 2 is replaced by the following:

‘2. any conditions or restrictions put on the flight crew to fly the aircraft, in addition to those defined in Appendix XII to this Annex I (Part 21).’;

(5) Appendix II is replaced by the following:

*Appendix II*

**Airworthiness Review Certificate — EASA Form 15a**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <p>[MEMBER STATE]</p> <p>A Member of the European Union (*)</p> <p><b>AIRWORTHINESS REVIEW CERTIFICATE</b></p> <p>ARC reference: .....</p> <p>Pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council for the time being into force, the [COMPETENT AUTHORITY OF THE MEMBER STATE] hereby certifies that the following aircraft:</p> <p>Aircraft manufacturer: .....</p> <p>Manufacturer's designation: .....</p> <p>Aircraft registration: .....</p> <p>Aircraft serial number: .....</p> <p>is considered airworthy at the time of the review.</p> <p>Date of issue: ..... Date of expiry: .....</p> <p>Airframe Flight Hours (FH) at date of issue (**): .....</p> <p>Signed: ..... Authorisation No: .....</p> <p>1st Extension: The aircraft has remained in a controlled environment in accordance with point M.A.901 of Annex I to Commission Regulation (EU) No 1321/2014 for the last year. The aircraft is considered to be airworthy at the time of the issue.</p> <p>Date of issue: ..... Date of expiry: .....</p> <p>Airframe Flight Hours (FH) at date of issue (**): .....</p> <p>Signed: ..... Authorisation No: .....</p> <p>Company Name: ..... Approval reference: .....</p> <p>2nd Extension: The aircraft has remained in a controlled environment in accordance with point M.A.901 of Annex I to Commission Regulation (EU) No 1321/2014 for the last year. The aircraft is considered to be airworthy at the time of the issue.</p> <p>Date of issue: ..... Date of expiry: .....</p> <p>Airframe Flight Hours (FH) at date of issue (**): .....</p> <p>Signed: ..... Authorisation No: .....</p> <p>Company Name: ..... Approval reference: .....</p> |
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(\*) Delete for non-EU Member States.

(\*\*) Except for balloons and airships.;

(6) the following Appendix XII is added:

*Appendix XII*

**Categories of flight tests and associated flight test crew qualifications**

**A. General**

This Appendix establishes the qualifications necessary for flight crew involved in the conduct of flight tests for aircraft certified or to be certified in accordance with CS-23 for aircraft with a maximum take-off mass (MTOM) of or above 2 000 kg, CS-25, CS-27, CS-29 or equivalent airworthiness codes.

**B. Definitions**

1. "Flight test engineer" means any engineer involved in flight test operations either on the ground or in flight.
2. "Lead flight test engineer" means a flight test engineer assigned for duties in an aircraft for the purpose of conducting flight tests or assisting the pilot in the operation of the aircraft and its systems during flight test activities.
3. "Flight tests" mean:
  - 3.1. flights for the development phase of a new design (aircraft, propulsion systems, parts and appliances);
  - 3.2. flights to demonstrate compliance to certification basis or conformity to type design;
  - 3.3. flights intended to experiment new design concepts, requiring unconventional manoeuvres or profiles for which it could be possible to exit the already approved envelope of the aircraft;
  - 3.4. flight test training flights.

**C. Categories of flight tests**

1. *General*

The descriptions below address the flights performed by design and production organisations under Annex I (Part 21).

2. *Scope*

If more than one aircraft is involved in a test, each individual aircraft flight shall be assessed under this Appendix to determine if it is a flight test and when appropriate, its category.

The flights referred to in point (6)(B)(3) are the only flights that belong to the scope of this Appendix.

3. *Categories of flight tests*

Flights tests include the following four categories:

3.1. Category One (1)

- (a) Initial flight(s) of a new type of aircraft or of an aircraft of which flight or handling characteristics may have been significantly modified;
- (b) Flights during which it can be envisaged to potentially encounter flight characteristics significantly different from those already known;
- (c) Flights to investigate novel or unusual aircraft design features or techniques;
- (d) Flights to determine or expand the flight envelope;

- (e) Flights to determine the regulatory performances, flight characteristics and handling qualities when flight envelope limits are approached;
- (f) Flight test training for Category 1 flight tests.
- 3.2. Category Two (2)
- (a) Flights not classified as Category 1 on an aircraft whose type is not yet certified;
- (b) Flights not classified Category 1 on an aircraft of an already certified type, after embodiment of a not yet approved modification and which:
- (i) require an assessment of the general behaviour of the aircraft; or
- (ii) require an assessment of basic crew procedures, when a new or modified system is operating or is needed; or
- (iii) are required to intentionally fly outside of the limitations of the currently approved operational envelope, but within the investigated flight envelope;
- (c) Flight test training for Category 2 flight tests.
- 3.3. Category Three (3)
- Flights performed for the issuance of statement of conformity for a new-built aircraft which do not require flying outside of the limitations of the type certificate or the aircraft flight manual.
- 3.4. Category Four (4)
- Flights not classified as Category 1 or 2 on an aircraft of an already certified type, in case of an embodiment of a not yet approved design change.

#### D. Competence and experience of pilots and lead flight test engineers

##### 1. General

Pilots and lead flight test engineers shall have the competences and experience specified in the following table.

| Aircraft                                                                                                                                                                                  | Categories of flight tests |                    |                    |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------|--------------------|--------------------|
|                                                                                                                                                                                           | 1                          | 2                  | 3                  | 4                  |
| CS-23 commuter or aircraft having a design diving speed (M <sub>d</sub> ) above 0,6 or a maximum ceiling above 7 260 m (25 000 ft), CS-25, CS-27, CS-29 or equivalent airworthiness codes | Competence level 1         | Competence level 2 | Competence level 3 | Competence level 4 |
| Other CS-23 with an MTOM of or above 2 000 kg                                                                                                                                             | Competence level 2         | Competence level 2 | Competence level 3 | Competence level 4 |

##### 1.1. Competence level 1

1.1.1. Pilots shall comply with the requirements of Annex I (Part-FCL) to Commission Regulation (EU) No 1178/2011 of 3 November 2011 <sup>(1)</sup>.

1.1.2. Lead flight test engineer shall have:

- (a) satisfactorily completed a Competence level 1 training course; and
- (b) a minimum of 100 hours of flight experience, including flight test training.

<sup>(1)</sup> 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).

## 1.2. Competence level 2

1.2.1. Pilots shall comply with the requirements of Annex I (Part-FCL) to Regulation (EU) No 1178/2011.

1.2.2. The lead flight test engineer shall have:

- (a) satisfactorily completed a Competence level 1 or level 2 training course; and
- (b) a minimum of 50 hours of flight experience, including flight test training.

The competence level 1 or level 2 training courses for Lead flight test engineer shall cover at least the following subjects:

- (i) Performance;
- (ii) Stability and control/handling qualities;
- (iii) Systems;
- (iv) Test management; and
- (v) Risk/safety management.

## 1.3. Competence level 3

1.3.1. Pilot(s) shall hold a valid licence appropriate to the category of aircraft under test, issued in accordance with Part-FCL and hold a Commercial Pilot Licence (CPL) as a minimum. In addition, the pilot-in-command shall:

- (a) hold a flight test rating; or
- (b) have at least 1 000 hours of flight experience as pilot-in-command on aircraft having similar complexity and characteristics; and
- (c) have participated, for each class or type of aircraft, in all flights that are part of the programme leading to the issuance of the individual certificate of airworthiness of at least five aircraft.

1.3.2. Lead flight test engineer shall:

- (a) satisfy Competence level 1 or level 2; or
- (b) have gained a significant amount of flight experience relevant to the task; and
- (c) have participated in all flights that are part of the programme leading to the issuance of the individual certificate of airworthiness of at least five aircraft.

## 1.4. Competence level 4

1.4.1. Pilot(s) shall hold a valid licence appropriate to the category of aircraft under test, issued in accordance with Part-FCL and hold a CPL as a minimum. The pilot-in-command shall hold a flight test rating or have at least 1 000 hours as pilot-in-command on aircraft having similar complexity and characteristics.

1.4.2. Competence and experience for lead flight test engineers is defined in the flight test operations manual.

## 2. *Lead flight test engineers*

Lead flight test engineers shall receive an authorisation from the organisation that employs them detailing the scope of their functions within the organisation. The authorisation shall contain the following information:

- (a) name;
- (b) date of birth;



- (c) experience and training;
- (d) position in organisation;
- (e) scope of the authorisation;
- (f) date of first issue of the authorisation;
- (g) date of expiry of the authorisation, if appropriate; and
- (h) identification number of the authorisation.

Lead flight test engineers shall only be appointed for a specific flight if they are physically and mentally fit to safely discharge assigned duties and responsibilities.

The organisation shall make all relevant records related to authorisations available to their holders.

#### **E. Competence and experience of other flight test engineers**

Other flight test engineers on board the aircraft shall have an amount of experience and training commensurate with the tasks assigned to them as crew members, and in accordance with the flight test operations manual, when applicable.

The organisation shall make all relevant records related to their flight activities available to the relevant flight test engineer.'

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