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Version: 31 Dec 2020

## **Commission Regulation (EC) No 633/2007**

of 7 June 2007

**laying down requirements for the application of a flight message transfer protocol used for the purpose of notification, coordination and transfer of flights between air traffic control units**

(Text with EEA relevance)

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## **Commission Regulation (EC) No 633/2007**

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**laying down requirements for the application of a flight message transfer protocol used for the purpose of notification, coordination and transfer of flights between air traffic control units**

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Regulation (EC) No 552/2004 of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regulation), and in particular Article 3(1) thereof,

Having regard to Regulation (EC) No 549/2004 of the European Parliament and the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the framework Regulation), and in particular Article 8(2) thereof,

Whereas:

- (1) Information exchanges between flight data processing systems are established between air traffic control units for the purposes of notification, coordination and transfer of flights and for the purposes of civil-military coordination. These information exchanges should rely upon appropriate and harmonised communication protocols to secure their interoperability.
- (2) The European Organisation for the Safety of Air Navigation (Eurocontrol) has been given a mandate in accordance with Article 8(1) of Regulation (EC) No 549/2004 to develop requirements for a flight message transfer protocol to be used for the purpose of notification, coordination and transfer of flights. This Regulation is based on the resulting mandate report of 31 March 2005.
- (3) The Eurocontrol standard for Flight Data Exchange was annexed to Commission Regulation (EC) No 2082/2000 of 6 September 2000 adopting Eurocontrol standards and amending Directive 97/15/EC, adopting Eurocontrol standards and amending Council Directive 93/65/EEC, making its use mandatory within the Community in the event of procurement of new flight data processing systems. As Regulation (EC) No 2082/2000 was repealed with effect from 20 October 2005, it is necessary to update Community legislation, so as to ensure the consistency of relevant regulatory provisions.
- (4) (4) of flight data should therefore be adopted.
- (5) The Transmission Control Protocol together with the Internet Protocol (TCP/IP) is currently considered as the most appropriate basis to meet the communication requirements of flight data exchanges between air traffic control units.
- (6) This Regulation should cover the application of a flight message transfer protocol used for the information exchanges in accordance with Commission Regulation (EC) No 1032/2006 of 6 July 2006 laying down requirements for automatic systems for the exchange of flight data for the purpose of notification, coordination and transfer of flights between air traffic control units.
- (7) This Regulation should not cover military operations and training as referred in Article 1(2) of Regulation (EC) No 549/2004.
- (8) In a statement on military issues related to the Single European Sky, the Member States committed themselves to cooperate with each other, taking into account national military requirements, in order that the concept of flexible use of airspace is fully and uniformly applied in all Member States by all users of airspace.
- (9) The application of the concept of flexible use of airspace, as defined in Article 2(22) of Regulation (EC) No 549/2004, requires the establishment of systems for the timely exchange of flight data between air traffic service units and controlling military units.
- (10) In accordance with Article 3(3)(d) of Regulation (EC) No 552/2004, implementing rules for interoperability should describe the specific conformity assessment procedures to be used to assess either the conformity or the suitability for use of constituents as well as the verification of systems.
- (11) In accordance with Article 10(2) of Regulation (EC) No 552/2004, the date for the application of the essential requirements and transitional arrangements may be specified by the relevant implementing rules for interoperability.
- (12) Manufacturers and air navigation service providers should be afforded a period of time to develop new constituents and systems in conformity with the new technical requirements.
- (13) The measures provided for in this Regulation are in accordance with the opinion of the Single Sky Committee established by Article 5 of Regulation (EC) No 549/2004,

HAS ADOPTED THIS REGULATION:

## *Article 1*

### **Subject matter and scope**

1. This Regulation lays down requirements for the application of a flight message transfer protocol for information exchanges between flight data processing systems for the purpose of notification, coordination and transfer of flights between air traffic control units and for the purposes of civil-military coordination, in accordance with Regulation (EC) No 1032/2006.

2. This Regulation shall apply to:

- (a) communication systems supporting the coordination procedures between air traffic control units using a peer-to-peer communication mechanism and providing services to general air traffic;
- (b) communication systems supporting the coordination procedures between air traffic services units and controlling military units, using a peer-to-peer communication mechanism.

## *Article 2*

### **Definitions**

For the purpose of this Regulation the definitions in Article 2 of Regulation (EC) No 549/2004 shall apply.

The following definitions shall also apply:

1. 'flight message transfer protocol' means a protocol for electronic communication comprising message formats, their encoding for interchange and sequence rules used for the information exchanges between flight data processing systems;

2. 'flight data processing system' means the part of an air traffic services system which receives, automatically processes and distributes to air traffic control units working positions, flight plan data and associated messages;

3. 'air traffic control unit' (hereinafter ATC unit) means variously area control centre, approach control unit or aerodrome control tower;

4. 'working position' means the furniture and technical equipment at which a member of the air traffic services staff undertakes task associated with their job;

5. 'area control centre' (hereinafter ACC) means a unit established to provide air traffic control service to controlled flights in control areas under its responsibility;

6. 'civil-military coordination' means the coordination between civil and military parties authorised to make decisions and agree a course of action;

7. 'air traffic services unit' (hereinafter ATS unit) means a unit, civil or military, responsible for providing air traffic services;

8. 'controlling military unit' means any fixed or mobile military unit handling military air traffic and/or pursuing other activities that, due to their specific nature, may require airspace reservation or restriction;

9. 'peer-to-peer communication mechanism' means a mechanism for communication established between two ATC units or between ATS units and controlling military units in which each party has the same

communication capabilities for the information exchange between flight data processing systems and either party can initiate the communication.

### *Article 3*

#### **Application of the flight message transfer protocol**

1. Air navigation service providers shall ensure that the systems referred to in Article 1(2)(a) apply the flight message transfer protocol in accordance with the interoperability requirements specified in Annex I.
2. Member States shall ensure that the systems referred to in Article 1(2)(b) apply the flight message transfer protocol in accordance with the interoperability requirements specified in Annex I.

### *Article 4*

#### **Conformity assessment of constituents**

Before issuing an EC declaration of conformity referred to in Article 5 of Regulation (EC) No 552/2004, manufacturers of constituents of the systems referred to in Article 1(2) of this Regulation applying a flight message transfer protocol shall assess the conformity of these constituents in compliance with the requirements set out in Annex II.

### *Article 5*

#### **Verification of systems**

1. Air navigation service providers which can demonstrate that they fulfil the conditions set out in Annex III shall conduct a verification of the systems referred to in Article 1(2)(a) in compliance with the requirements set out in Annex IV Part A.
  2. Air navigation service providers which cannot demonstrate that they fulfil the conditions set out in Annex III shall subcontract to a notified body a verification of the systems referred to in Article 1(2)(a).
- This verification shall be conducted in compliance with the requirements set out in Annex IV, Part B.
3. Member States shall ensure that the verification of the systems referred in Article 1(2)(b) demonstrates the conformity of these systems with the interoperability requirements of this Regulation.

### *Article 6*

#### **Compliance**

Member States shall take the necessary measures to ensure compliance with this Regulation.

### *Article 7*

#### **Transitional arrangements**

1. The essential requirements set out in Annex II to Regulation (EC) No 552/2004 shall apply to the putting into service of European air traffic management network (hereinafter EATMN) systems referred in Article 1(2), of this Regulation from 1 January 2009.

2. The transitional arrangements in Article 10(3) of Regulation (EC) No 552/2004 shall apply, where appropriate, from the same date.

3. Where a Member State or an air navigation service provider is developing a flight message transfer protocol in conjunction with the implementation of Regulation (EC) No 1032/2006 between its systems, the systems referred to in Article 1(2)(a) and (b) shall comply with the requirements of Annex I by 31 December 2012 .

4. Where a Member State or an air navigation service provider has ordered or signed a binding contract to that effect or developed a flight message transfer protocol for the systems referred to in Article 1(2)(a) and (b) before the date of entry into force of this Regulation so that the compliance with the requirements of point 6 of Annex I cannot be guaranteed, the air navigation service provider or the controlling military unit may use other versions of the Internet protocol for peer-to-peer communications between their systems until 31 December 2014 .

Those Member States and air navigation service providers shall ensure that all peer-to-peer communications from their systems to those of other Member States or air navigation service providers comply with the requirements specified in Annex I, unless a bilateral agreement concluded before 20 April 2011 allows the use of other versions of the Internet protocol for a transitional period ending no later than 31 December 2014 .

5. The Member States referred to in paragraphs 3 and 4 shall communicate to the Commission before 20 April 2011 detailed information on the measures applied by the air navigation service provider or the controlling military units to ensure interoperability of the systems referred to in Article 1(2)(a) and (b) within the EATMN.

## *Article 8*

### **Entry into force and application**

This Regulation shall enter into force on the 20th day following its publication in the Official Journal of the European Union.

It shall apply from 1 January 2009 to all EATMN systems referred to in Article 1(2) put into service after that date.

It shall apply from 20 April 2011 to all EATMN systems referred to in Article 1(2) in operation by that date.

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

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## **ANNEX I**

### **Interoperability requirements referred to in Article 3**

1. Each flight message transfer peer entity shall have an identifier.
  2. An identification function shall ensure that communications can take place only between authorised flight message transfer peer entities.
  3. A connection management function shall establish and release connections between flight message transfer peer entities ensuring that flight data transfer can be achieved only during the lifetime of a connection.
  4. A data transfer function shall send and receive flight data messages between connected flight message transfer peer entities.
  5. A monitoring function shall verify the continuity of service of a connection between flight message transfer peer entities.
  6. All functions exchanged between flight message transfer entities shall use Transmission Control Protocol over Internet Protocol, IP version 6.
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## **ANNEX II**

### **Requirements for the assessment of the conformity of constituents carried out under Article 4**

1. The verification activities shall demonstrate the conformity of constituents implementing flight message transfer protocol with the applicable interoperability requirements of this Regulation whilst these constituents are in operation in the test environment.
  2. The manufacturer shall manage the verification activities and shall in particular:
    - (a) determine the appropriate test environment;
    - (b) verify that the test plan describes the constituents in the test environment;
    - (c) verify that the test plan provides full coverage of applicable requirements;
    - (d) ensure the consistency and quality of the technical documentation and the test plan;
    - (e) plan the test organisation, staff, installation and configuration of the test platform;
    - (f) perform the inspections and tests as specified in the test plan;
    - (g) write the report presenting the results of inspections and tests.
  3. The manufacturer shall ensure that the constituents implementing flight message transfer protocol, integrated in the test environment, meet the applicable interoperability requirements of this Regulation.
  4. Upon satisfactory completion of verification of conformity, the manufacturer shall under its responsibility draw up the EC declaration of conformity, specifying notably the requirements of this Regulation met by the constituent and its associated conditions of use in accordance with Annex III(3) to Regulation (EC) No 552/2004.
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## **ANNEX III**

## **Conditions referred to in Article 5**

1. The air navigation service provider must have in place reporting methods within the organisation which ensure and demonstrate impartiality and independence of judgment in relation to the verification activities.
  2. The air navigation service provider must ensure that the personnel involved in verification processes carry out the checks with the greatest possible professional integrity and the greatest possible technical competence and are free of any pressure and incentive, in particular of a financial type, which could affect their judgment or the results of their checks, in particular from persons or groups of persons affected by the results of the checks.
  3. The air navigation service provider must ensure that the personnel involved in verification processes have access to equipment which enables them to perform the required checks properly.
  4. The air navigation service provider must ensure that the personnel involved in verification processes have sound technical and vocational training, satisfactory knowledge of the requirements of the verifications they have to carry out, adequate experience of such operations, and the ability required to draw up the declarations, records and reports to demonstrate that the verifications have been carried out.
  5. The air navigation service provider must ensure that the personnel involved in verification processes are able to perform their checks with impartiality. Their remuneration shall not depend on the number of checks carried out or on the results of such checks.
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## **ANNEX IV**

### **Part A: Requirements for the verification of systems carried out under Article 5(1)**

1. The verification of systems implementing flight message transfer protocol shall demonstrate the conformity of these systems with the interoperability requirements of this Regulation in a simulated environment that reflects the operational context of these systems.
2. The verification of systems implementing flight message transfer protocol shall be conducted in accordance with appropriate and recognised testing practices.
3. Test tools used for the verification of systems implementing flight message transfer protocol shall have appropriate functions to secure comprehensive coverage of the tests.
4. The verification of systems implementing flight message transfer protocol shall produce the elements of the technical file required by Annex IV(3) to Regulation (EC) No 552/2004 and the following elements:
  - (a) description of the implementation of flight message transfer protocol;
  - (b) the report on inspections and tests conducted before putting the system into service.
5. The air navigation service provider shall manage the verification activities and shall in particular:



- (a) determine the appropriate simulated operational and technical environment reflecting the operational environment;
- (b) verify that the test plan describes the integration of flight message transfer protocol in the system tested in a simulated operational and technical environment;
- (c) verify that the test plan provides full coverage of the interoperability requirements of this Regulation;
- (d) ensure the consistency and quality of the technical documentation and the test plan;
- (e) plan the test organisation, staff, installation and configuration of the test platform;
- (f) perform the inspections and tests as specified in the test plan;
- (g) write the report presenting the results of the inspections and tests.

6.The air navigation service provider shall ensure that the implementation of flight message transfer protocol, integrated in systems operated in a simulated operational environment, meets the interoperability requirements of this Regulation.

7.Upon satisfactory completion of verification of compliance, air navigation service providers shall draw up the EC declaration of verification of system and submit it to the national supervisory authority together with the technical file, as required by Article 6 of Regulation (EC) No 552/2004.

## **Part B: Requirements for the verification of systems carried out under Article 5(2)**

1.The verification of systems implementing flight message transfer protocol shall demonstrate the conformity of these systems with the interoperability requirements of this Regulation in a simulated environment that reflects the operational context of these systems.

2.The verification of systems implementing flight message transfer protocol shall be conducted in accordance with appropriate and recognised testing practices.

3.Test tools used for the verification of systems implementing flight message transfer protocol shall have appropriate functions to secure comprehensive coverage of the tests.

4.The verification of systems implementing flight message transfer protocol shall produce the elements of the technical file required by Annex IV(3) to Regulation (EC) No 552/2004 and the following elements:

- (a) description of the implementation of flight message transfer protocol;
- (b) the report on inspections and tests conducted before putting the system into service.

5.The air navigation service provider shall determine the appropriate simulated operational and technical environment reflecting the operational environment and shall have verification activities performed by a notified body.

6.The notified body shall manage the verification activities and shall in particular:

- (a) verify that the test plan describes the integration of flight message transfer protocol in the system tested in a simulated operational and technical environment;
- (b) verify that the test plan provides full coverage of the interoperability requirements of this Regulation;
- (c) ensure the consistency and quality of the technical documentation and the test plan;
- (d) plan the test organisation, staff, installation and configuration of the test platform;



- (e) perform the inspections and tests as specified in the test plan;
- (f) write the report presenting the results of the inspections and tests.

7. The notified body shall ensure that the implementation of flight message transfer protocol, integrated in systems operated in a simulated operational environment, meets the interoperability requirements of this Regulation.

8. Upon satisfactory completion of verification tasks, the notified body shall draw up a certificate of conformity in relation to the tasks it carried out.

9. Then, the air navigation service provider shall draw up the EC declaration of verification of systems and submit it to the national supervisory authority together with the technical file, as required by Article 6 of Regulation (EC) No 552/2004.