

**COMMISSION IMPLEMENTING REGULATION (EU) No 1079/2012****of 16 November 2012****laying down requirements for voice channels spacing for the single European sky****(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 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) <sup>(1)</sup>, and in particular Article 3(5) thereof,

Whereas:

- (1) The Commission has issued a mandate to Eurocontrol in accordance with Article 8(1) of Regulation (EC) No 549/2004 of the European Parliament and of the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the framework Regulation) <sup>(2)</sup> to develop requirements for the coordinated introduction of air-ground voice communications based on 8,33 kHz channel spacing. This Regulation is based on the resulting mandate report of 12 July 2011.
- (2) The first phase of the mandate led to the adoption of Commission Regulation (EC) No 1265/2007 of 26 October 2007 laying down requirements on air-ground voice channel spacing for the single European sky <sup>(3)</sup> which aimed at the coordinated introduction of air-ground voice communications based on 8,33 kHz channel spacing in the airspace above Flight Level (FL) 195.
- (3) Specific provisions of Regulation (EC) No 1265/2007, mainly regarding procedures, were already applicable in the airspace below FL 195.
- (4) Previous conversions to 8,33 kHz channel spacing above FL 195 have reduced frequency congestion, but have not eliminated it. Many Member States find it increasingly difficult to satisfy the demand for new frequency assignments in the aeronautical mobile route service band 117,975-137 MHz ('the VHF band').
- (5) The only realistic option to resolve the medium to long-term congestion problem in the VHF band is the further deployment of air-ground voice communications based on 8,33 kHz channel spacing.
- (6) Inability to meet future demand for frequency assignments will delay or make impossible airspace improvements to increase capacity and will lead to increase in delays entailing significant costs.
- (7) The Network Manager set up by Commission Regulation (EU) No 677/2011 of 7 July 2011 laying down detailed rules for the implementation of air traffic management (ATM) network functions and amending Regulation (EU) No 691/2010 <sup>(4)</sup> coordinates and harmonises the processes and procedures to enhance the efficiency of aeronautical frequency management. It also coordinates the early identification of needs and resolution of frequency problems.
- (8) Harmonised frequency use in the entire European airspace under Member States responsibility for specific applications will further optimise the use of limited radio spectrum resources. Therefore the 8,33 kHz channel spacing conversion of frequencies should take into account the possible actions of the Network Manager for harmonised frequency use mainly by general aviation for air-to-air communications purposes and for specific applications related to general aviation activities.
- (9) The investment made as a result of Regulation (EC) No 1265/2007 has substantially reduced the cost of deployment of 8,33 kHz channel spacing in the airspace below FL 195 for air navigation service providers and for operators flying above FL 195.
- (10) The requirements for general aviation aircraft operating under visual flight rules to be equipped with radios with 8,33 kHz channel spacing capability will impose a considerable cost with limited operational benefits for those aircraft.
- (11) The European Organisation for Civil Aviation Equipment (Eurocae) specification ED-23B should be considered as sufficient means of compliance with regard to the capabilities of the airborne equipment.
- (12) Airborne equipment compliant with the Eurocae specification ED-23C provides improved communications characteristics. It should therefore be considered as the preferred option to ED-23B whenever possible.
- (13) The arrangements for State aircraft should take into account their specific constraints with appropriate implementation dates.

<sup>(1)</sup> OJ L 96, 31.3.2004, p. 26.<sup>(2)</sup> OJ L 96, 31.3.2004, p. 1.<sup>(3)</sup> OJ L 283, 27.10.2007, p. 25.<sup>(4)</sup> OJ L 185, 15.7.2011, p. 1.

- (14) This Regulation should not cover military operations and training in accordance with Article 1(2) of Regulation (EC) No 549/2004.
- (15) Member States which apply North Atlantic Treaty Organisation ('NATO') combined frequency requirements should maintain the 122,1 MHz frequency in 25 kHz channel spacing for the accommodation of State aircraft not equipped with radios with 8,33 kHz channel spacing capability, until a suitable alternative is found.
- (16) With a view to maintaining or enhancing existing safety levels of operations, Member States should ensure that the parties concerned carry out a safety assessment including hazard identification, risk assessment and mitigation processes. Harmonised implementation of those processes to the systems covered by this Regulation necessitates the identification of specific safety requirements for all interoperability and performance requirements.
- (17) In accordance with Regulation (EC) No 552/2004, implementing rules for interoperability should describe the specific conformity assessment procedures to be used to assess the conformity or suitability for use of constituents as well as the verification of systems.
- (18) The level of maturity of the market for the constituents to which this Regulation applies is such that their conformity or suitability for use can be assessed through internal production control, using procedures based on Module A in Annex II to Decision No 768/2008/EC of the European Parliament and of the Council of 9 July 2008 on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC<sup>(1)</sup>.
- (19) For reasons of clarity, Regulation (EC) No 1265/2007 should be repealed.
- (20) The measures provided for in this Regulation are in accordance with the opinion of the Single Sky Committee,
2. This Regulation shall apply to flight data processing systems serving air traffic control units providing services to general air traffic, their constituents and associated procedures.
3. This Regulation shall apply to all flights operating as general air traffic, within the airspace of the International Civil Aviation Organisation ('ICAO') EUR region where Member States are responsible for the provision of air traffic services in accordance with Regulation (EC) No 550/2004 of the European Parliament and of the Council<sup>(2)</sup>.
4. The conversion requirements shall not apply to frequency assignments:
- (a) that will remain in 25 kHz channel spacing on the following frequencies:
- (i) the emergency frequency (121,5 MHz);
  - (ii) the auxiliary frequency for search and rescue operations (123,1 MHz);
  - (iii) the VHF digital link (VDL) frequencies (136,725 MHz, 136,775 MHz, 136,825 MHz, 136,875 MHz, 136,925 MHz and 136,975 MHz);
  - (iv) the aircraft communications addressing and reporting system (ACARS) frequencies (131,525 MHz, 131,725 MHz and 131,825 MHz);
- (b) where offset carrier operation within a 25 kHz channel spacing is utilised.
5. Radios intended to operate exclusively in one or more frequency assignments that will remain in 25 kHz channel spacing shall not be required to have the 8,33 kHz channel spacing capability.

### Article 3

#### Definitions

For the purpose of this Regulation, the definitions set out in Article 2 of Regulation (EC) No 549/2004 shall apply. The following definitions shall also apply:

- (1) 'channel' means a numerical designator used in conjunction with voice communication equipment tuning, which allows unique identification of the applicable radio frequency and associated channel spacing;
- (2) '8,33 kHz channel spacing' means a channel spacing where the nominal channel centre frequencies are separated in increments of 8,33 kHz;
- (3) 'radio' means any installed, portable or handheld device designed to transmit and/or receive transmissions in the VHF band;
- (4) 'central register' means a register where the national frequency manager registers the necessary operational, technical and administrative details for each frequency assignment in accordance with Regulation (EU) No 677/2011;

HAS ADOPTED THIS REGULATION:

#### Article 1

##### Subject matter

This Regulation lays down requirements for the coordinated introduction of air-ground voice communications based on 8,33 kHz channel spacing.

#### Article 2

##### Scope

1. This Regulation shall apply to all radios operating in the 117,975-137 MHz band ('the VHF band') allocated to the aeronautical mobile route service, including systems, their constituents and associated procedures.

<sup>(1)</sup> OJ L 218, 13.8.2008, p. 82.

<sup>(2)</sup> OJ L 96, 31.3.2004, p. 10.

- (5) '8,33 kHz conversion' means the replacement of a frequency assignment registered in the central register and using 25 kHz channel spacing by a frequency assignment using 8,33 kHz channel spacing;
- (6) 'frequency assignment' means authorisation given by a Member State to use a radio frequency or radio frequency channel under specified conditions for the purpose of operating radio equipment;
- (7) 'operator' means a person, organisation or enterprise engaged in or offering to engage in an aircraft operation;
- (8) 'flights operated under visual flight rules' means any flights operated under visual flight rules as defined in Annex 2 to the 1944 Chicago Convention on International Civil Aviation ('the Chicago Convention');
- (9) 'State aircraft' means any aircraft used by military, customs or police;
- (10) 'offset carrier operation' means a case where the designated operational coverage cannot be ensured by a single ground transmitter and where, in order to minimise the interference problems, the signals from two or more ground transmitters are offset from the nominal channel centre frequency;
- (11) 'aircraft radio equipment' means one or more radios located on board an aircraft and used by an authorised flight crew member during flight;
- (12) 'radio upgrade' means the replacement of a radio by a radio of a different model or part number;
- (13) 'designated operational coverage' means the volume of airspace in which a particular service is provided and in which the service is afforded frequency protection;
- (14) 'air traffic control unit' ('ATC unit') means area control centre, approach control unit or aerodrome control tower;
- (15) 'working position' means the furniture and technical equipment at which a member of the air traffic services ('ATS') staff undertakes the tasks associated with his operational responsibilities;
- (16) 'radio-telephony' means a form of radio-communication primarily intended for the exchange of information in the form of speech;
- (17) 'letter of agreement' means an agreement between two adjacent ATS units that specifies how their respective ATS responsibilities are to be coordinated;
- (18) 'Integrated Initial Flight Plan Processing System' ('IFPS') means a system within the European Air Traffic Management Network through which a centralised flight planning processing and distribution service, dealing with the reception, validation and distribution of flight plans, is provided within the airspace covered by this Regulation;
- (19) 'transport-type State aircraft' means fixed wing State aircraft that are designed for the purpose of transporting persons and/or cargo;
- (20) 'airport operator' means the managing body of an airport as defined in Council Regulation (EEC) No 95/93 <sup>(1)</sup>;
- (21) 'operational control communication' means communication carried out by aircraft operators, which also affect air transport safety, regularity and efficiency of flights.

#### Article 4

#### Interoperability and performance requirements of radio equipment

1. Manufacturers of radios intended to operate in the VHF band, or their authorised representatives established in the Union, shall ensure that from 17 November 2013 all radios placed on the market, are 8,33 kHz channel spacing capable.

2. Air navigation service providers, operators and other users or owners of radios shall ensure that all radio equipment put into service from 17 November 2013, includes the 8,33 kHz channel spacing capability.

3. Member States shall ensure that aircraft for which the individual certificates of airworthiness or individual flight permits are first issued in the Union from 17 November 2013 and have a radio equipment requirement, are fitted with radios having the 8,33 kHz channel spacing capability.

4. Air navigation service providers, operators and other users or owners of radios shall ensure that from 17 November 2013 their radios include the 8,33 kHz channel spacing capability whenever they are subject to radio upgrades.

5. Member States shall ensure that by 31 December 2017 at the latest all radios have the 8,33 kHz channel spacing capability with the exception of ground radios operated by air navigation service providers.

6. In addition to 8,33 kHz channel spacing capability, the equipment referred to in paragraphs 1-5 shall be able to tune to 25 kHz spaced channels.

7. Users or owners of ground radios having the 8,33 kHz channel spacing capability shall ensure that the performance of these radios and the transmitter/receiver ground constituent complies with the ICAO standards specified in point 1 of Annex II.

<sup>(1)</sup> OJ L 14, 22.1.1993, p. 1.

8. Users or owners of aircraft radio equipment having the 8,33 kHz channel spacing capability shall ensure that the performance of these radios comply with the ICAO standards specified in point 2 of Annex II.

#### Article 5

##### Obligations of operators

1. An operator shall not operate an aircraft above FL 195 unless the aircraft radio equipment has the 8,33 kHz channel spacing capability.

2. From 1 January 2014 an operator shall not operate an aircraft flying under instrument flight rules in airspace class A, B or C of the Member States listed in Annex I unless the aircraft radio equipment has the 8,33 kHz channel spacing capability.

3. With regard to the carriage requirements of 8,33 kHz channel spacing radio equipment identified in paragraph 2, an operator shall not operate an aircraft flying under visual flight rules in areas operating in 8,33 kHz channel spacing unless the aircraft radio equipment has the 8,33 kHz channel spacing capability.

4. Without prejudice to Article 2(5), from 1 January 2018 an operator shall not operate an aircraft in airspace where carriage of radio is required unless the aircraft radio equipment has the 8,33 kHz channel spacing capability.

#### Article 6

##### Requirements on 8,33 kHz conversions

1. Member States shall ensure that for sectors with a lower level at or above FL 195 all voice frequency assignments are converted to 8,33 kHz channel spacing.

2. If under exceptional circumstances it is not possible to comply with paragraph 1, Member States shall communicate the reasons to the Commission.

3. Member States listed in Annex I shall implement, by 31 December 2014 at the latest, a number of new 8,33 kHz channel spacing conversions equivalent to at least 25 % of the total number of the 25 kHz frequency assignments in the central register and allocated to a specific area control centre ('ACC') in a Member State. These conversions shall not be limited to ACC frequency assignments and shall not include operational control communication frequency assignments.

4. The total number of State 25 kHz ACC frequency assignments identified in paragraph 3 shall not take into account:

(a) frequency assignments where 25 kHz offset carrier operation is utilised;

(b) frequency assignments that stay in 25 kHz as a result of a safety requirement;

(c) 25 kHz frequency assignments used to accommodate State aircraft.

5. Member States listed in Annex I shall communicate to the Commission, by 31 December 2013 at the latest, the number of conversions which can be achieved pursuant to paragraph 3.

6. If the 25 % target identified in paragraphs 3 and 4 cannot be achieved, the Member State shall provide, in its communication to the Commission, the justification for not having achieved the 25 % target and shall propose an alternative date by when those conversions shall be performed.

7. The communication to the Commission shall also identify the frequency assignments for which conversion is not feasible and shall state the reasons why the conversion is not feasible.

8. Member States listed in Annex I shall ensure that from 1 January 2015, all operational control communication frequency assignments in the central register are 8,33 kHz channel spacing frequency assignments.

9. Where, due to technical reasons, compliance with paragraph 8 can not be ensured, the Member States shall communicate to the Commission, by 31 December 2014 at the latest, the operational control communication frequency assignments which will not be converted and shall provide the justification for not making the conversions.

10. Member States shall ensure that, by 31 December 2018 at the latest, all frequency assignments are converted to 8,33 kHz channel spacing with the exception of:

(a) frequency assignments that stay in 25 kHz as a result of a safety requirement;

(b) 25 kHz frequency assignments used to accommodate State aircraft.

#### Article 7

##### Obligations of air navigation service providers

1. Air navigation service providers shall ensure that their 8,33 kHz channel spacing voice communication systems allow an operationally acceptable voice communication between controllers and pilots within the designated operational coverage.

2. Air navigation service providers shall implement the notification and initial coordination processes in their flight data processing systems in accordance with Commission Regulation (EC) No 1032/2006 <sup>(1)</sup> as follows:

(a) the information about the 8,33 kHz channel spacing capability of a flight shall be transmitted between ATC units;

<sup>(1)</sup> OJ L 186, 7.7.2006, p. 27.

- (b) the information about the 8,33 kHz channel spacing capability of a flight shall be made available at the appropriate working position;
- (c) the controller shall have the means to modify the information about the 8,33 kHz channel spacing capability of a flight.

#### Article 8

##### Associated procedures

1. Air navigation service providers, operators and other users of radios shall ensure that all six digits of the numerical designator are used to identify the transmitting channel in radio-telephony communications, except where both the fifth and sixth digits are zeros, in which case only the first four digits shall be used.
2. Air navigation service providers, operators and other users of radios shall ensure that their air-ground voice communication procedures are in accordance with the ICAO provisions specified in point 3 of Annex II.
3. Air navigation service providers shall ensure that the procedures applicable to aircraft equipped with radios having the 8,33 kHz channel spacing capability and to aircraft which are not equipped with such equipment are specified in the letters of agreement between ATS units.
4. All operators and agents acting on their behalf shall ensure that the letter Y is inserted in item 10 of the flight plan for aircraft equipped with radios having the 8,33 kHz channel spacing capability.
5. Operators and agents acting on their behalf shall ensure that when planning to fly in airspace requiring the carriage of radios with the 8,33 kHz channel spacing capability, the appropriate indicator is included in the flight plan for aircraft not equipped but which have been granted exemption from the mandatory carriage of equipment.
6. In the case of a change in the 8,33 kHz channel spacing capability status for a flight, the operators or the agents acting on their behalf shall send a modification message to IFPS with the appropriate indicator inserted in the relevant item.
7. The Network Manager shall ensure that IFPS processes and distributes the information on the 8,33 kHz channel spacing capability received in the flight plans.

#### Article 9

##### Arrangements for State aircraft

1. Member States shall ensure that transport-type State aircraft operating flights above FL 195 are equipped with radios having the 8,33 kHz channel spacing capability.

2. Where procurement constraints prevent compliance with paragraph 1, Member States shall ensure that transport-type State aircraft operating flights above FL 195 are equipped with radios having the 8,33 kHz channel spacing capability by 31 December 2012 at the latest.

3. Member States shall ensure that non-transport-type State aircraft operating flights above FL 195 are equipped with radios having the 8,33 kHz channel spacing capability.

4. Member States may allow non-compliance with paragraph 3 due to:

- (a) compelling technical or budgetary constraints;
- (b) procurement constraints.

5. When procurement constraints prevent compliance with paragraph 3, Member States shall ensure that non-transport-type State aircraft operating flights above FL 195 are equipped with radios having the 8,33 kHz channel spacing capability by 31 December 2015 at the latest.

6. Member States shall ensure that new State aircraft entering into service from 1 January 2014 are equipped with radios having the 8,33 kHz channel spacing capability.

7. Member States shall ensure that from 1 January 2014, whenever the radios installed on-board the State aircraft are subject to radio upgrades, the new radios have the 8,33 kHz channel spacing capability.

8. Member States shall ensure that all State aircraft are equipped with radios having the 8,33 kHz channel spacing capability by 31 December 2018 at the latest.

9. Without prejudice to national procedures for the communication of information on State aircraft, Member States shall communicate to the Commission by 30 June 2018 at the latest the list of State aircraft that cannot be equipped with radios having the 8,33 kHz channel spacing capability in accordance with paragraph 8 due to:

- (a) compelling technical or budgetary constraints;
- (b) procurement constraints.

10. Where procurement constraints prevent compliance with paragraph 8, Member States shall also provide to the Commission by 30 June 2018 at the latest the date by which the aircraft concerned will be equipped with radios having the 8,33 kHz channel spacing capability. That date shall not be later than 31 December 2020.

11. Paragraph 8 shall not apply in respect of State aircraft that will be withdrawn from operational service by 31 December 2025.

12. Air traffic service providers shall ensure that State aircraft not equipped with radios having the 8,33 kHz channel spacing capability can be accommodated, provided that they can be safely handled within the capacity limits of the air traffic management system on UHF or 25 kHz frequency assignments.

13. Member States shall publish procedures for the handling of State aircraft which are not equipped with radios having the 8,33 kHz channel spacing capability in their national aeronautical information publications.

14. Air traffic service providers shall communicate to the Member State that has designated them on an annual basis, their plans for the handling of State aircraft which are not equipped with radios having the 8,33 kHz channel spacing capability, taking into account the capacity limits associated with the procedures referred to in paragraph 13.

#### Article 10

##### Safety requirements

Member States shall take the necessary measures to ensure that any changes to the existing systems referred to in Article 2(1) or the introduction of new systems, are preceded by a safety assessment, including hazard identification, risk assessment and mitigation, conducted by the parties concerned. During this safety assessment, the requirements specified in Annex III shall be taken into consideration as a minimum.

#### Article 11

##### Conformity or suitability for use of constituents

1. Before issuing an EC declaration of conformity or suitability for use pursuant to Article 5 of Regulation (EC) No 552/2004, manufacturers of constituents of the systems referred to in Article 2(1) of this Regulation shall assess the conformity or suitability for use of these constituents in compliance with the requirements set out in Annex IV, Part A, to this Regulation.

2. Where a certificate issued in accordance with Regulation (EC) No 216/2008 of the European Parliament and of the Council<sup>(1)</sup> applies to constituents, it shall be considered as an EC declaration of conformity or suitability for use if it includes a demonstration of compliance with the applicable interoperability, performance and safety requirements of this Regulation.

#### Article 12

##### Verification of systems

1. Air navigation service providers which can demonstrate or have demonstrated to their national supervisory authority that they fulfil the conditions set out in Annex V shall conduct a verification of the systems referred to in Article 2(1) in compliance with the requirements set out in Annex IV, Part C.

2. Air navigation service providers which cannot demonstrate that they fulfil the conditions set out in Annex V shall subcontract to a notified body a verification of the systems

referred to in Article 2(1). The verification shall be conducted in compliance with the requirements set out in Annex IV, Part D.

3. Where a certificate issued in accordance with Regulation (EC) No 216/2008 applies to systems, it shall be considered as an EC declaration of verification if it includes a demonstration of compliance with the applicable interoperability, performance and safety requirements of this Regulation.

#### Article 13

##### Additional requirements

1. Member States shall ensure that all relevant stakeholders are made duly aware of the requirements laid down in this Regulation and that they are adequately trained for their job functions.

2. The Network Manager shall ensure that the personnel operating the IFPS involved in flight planning are made duly aware of the requirements laid down in this Regulation and that they are adequately trained for their job functions.

3. Air navigation service providers shall:

(a) develop and maintain operations manuals containing the necessary instructions and information to enable all their relevant personnel to apply this Regulation;

(b) ensure that the manuals referred to in point (a) are accessible and kept up to date and that their update and distribution are subject to appropriate quality and documentation management;

(c) ensure that the working methods and operating procedures comply with this Regulation.

4. The Network Manager shall ensure that the centralised flight planning processing and distribution service:

(a) develops and maintains operations manuals containing the necessary instructions and information to enable all relevant personnel to apply this Regulation;

(b) ensures that the manuals referred to in point (a) are accessible and kept up to date and that their update and distribution are subject to appropriate quality and documentation management;

(c) ensures that its working methods and operating procedures comply with this Regulation.

5. Operators shall ensure that the personnel operating radio equipment are made duly aware of this Regulation, that they are adequately trained to use this equipment and that instructions are available in the cockpit where feasible.

6. Member States shall take the necessary measures to ensure compliance with this Regulation including the publication of relevant information in the national aeronautical information publications.

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

*Article 14***Exemptions**

1. In the framework of the first paragraph of Article 4 of Commission Regulation (EC) No 730/2006 <sup>(1)</sup>, Member States may issue temporary derogations from airborne carriage obligations laid down in Article 5(1) of this Regulation for flights operated under visual flight rules.
2. Member States may take local measures granting exemptions from the compliance with Articles 4(5), 5(4) and 6(10) for cases having limited impact on the network.
3. Member States taking the local measures referred to in paragraph 2, shall provide the Commission with detailed information justifying the need for exemptions at the latest: one year before the dates identified in Articles 4(5), 5(4) and 6(10).

4. Within six months from receipt of detailed information from the Member States pursuant to paragraph 3 and after consultation with the Network Manager, the Commission may review any exemption granted pursuant to paragraph 2 if the impact on the network is not limited.

*Article 15***Repeal**

Regulation (EC) No 1265/2007 is repealed.

*Article 16***Entry into force**

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

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

Done at Brussels, 16 November 2012.

*For the Commission*  
*The President*

José Manuel BARROSO

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<sup>(1)</sup> OJ L 128, 16.5.2006, p. 3.

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ANNEX I

**Member States referred to in Articles 5 and 6**

The Member States referred to in Articles 5(2), 6(3), 6(5) and 6(8) are the following:

- Germany,
  - Ireland,
  - France,
  - Italy,
  - Luxembourg,
  - Hungary,
  - Netherlands,
  - Austria,
  - United Kingdom.
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## ANNEX II

**ICAO provisions referred to in Articles 4 and 8**

1. Chapter 2 'Aeronautical Mobile Service', Section 2.1 'Air-ground VHF communication system characteristics' and Section 2.2 'System characteristics of the ground installations' of Annex 10 to the Chicago Convention, Volume III, Part 2 (Second Edition — July 2007 incorporating Amendment No 85).
2. Chapter 2 'Aeronautical Mobile Service', Section 2.1 'Air-ground VHF communication system characteristics', Section 2.3.1 'Transmitting function' and Section 2.3.2 'Receiving function' excluding Subsection 2.3.2.8 'VDL — Interference Immunity Performance' of Annex 10 to the Chicago Convention, Volume III, Part 2 (Second Edition — July 2007 incorporating Amendment No 85).
3. Section 12.3.1.4 '8,33 kHz channel spacing' of ICAO PANS-ATM Doc. 4444 (15th Edition — 2007 incorporating Amendment No 2).

## ANNEX III

**Requirements referred to in Article 10, to be taken into consideration during the safety assessment**

1. The interoperability and performance requirements set out in Articles 4(6), 4(7), 4(8), 7(1) and 7(2) shall be taken into consideration during the safety assessment.
2. The associated procedures requirements set out in Article 8 shall be taken into consideration during the safety assessment.
3. The State aircraft arrangements set out in Article 9(13) and (14) shall be taken into consideration during the safety assessment.
4. The requirements supporting compliance set out in Article 13(1), (2), (5) and (6) shall be taken into consideration during the safety assessment.
5. Member States shall ensure that when a frequency assignment is to be converted to 8,33 kHz channel spacing, the new frequency assignment is tested for a trial period of an appropriate duration, during which time safe operation is verified, prior to registration in the central register.
6. Member States shall ensure that conversions to 8,33 kHz channel spacing are made considering the ICAO guidance material on frequency planning criteria as described in Part II — 'VHF Air-Ground Communications Frequency Assignment Planning Criteria' of the EUR Frequency Management Manual — ICAO EUR Doc. 011.
7. Air navigation service providers shall ensure that procedures for handling non-8,33 kHz equipped aircraft operating in airspace requiring the carriage of radios with the 8,33 kHz channel spacing capability are published and applied as appropriate.
8. Air navigation service providers and/or airport operators shall ensure that procedures for handling non-8,33 kHz equipped vehicles through airport areas using 8,33 kHz channel spacing are published and applied as appropriate.
9. Member States which convert frequency assignments to 8,33 kHz channel spacing in any part of their airspace shall:
  - (a) ensure that operators of aircraft operating in such airspace are informed that these aircraft must be equipped with radios having the 8,33 kHz channel spacing capability;
  - (b) ensure that appropriate training is provided to flight crew members that use 25 kHz radios in airspace where the carriage of radios having the 8,33 kHz channel spacing capability is required, as specified in Article 2(5);
  - (c) perform a local safety assessment prior to the conversion that takes into account all the traffic expected to cross that airspace and the potential issues arising from the voice communication system in operation in all surrounding airspace.

## ANNEX IV

## PART A

**Requirements for the assessment of the conformity or suitability for use of constituents referred to in Article 11**

1. The verification activities shall demonstrate the conformity of constituents or their suitability for use in accordance with the performance requirements of this Regulation whilst these constituents are in operation in the test environment.
2. The application by the manufacturer of the module described in Part B shall be considered as an appropriate conformity assessment procedure to ensure and declare the compliance of constituents. Equivalent or more stringent procedures are also authorised.

## PART B

**Internal production control module**

1. This module describes the procedure whereby the manufacturer or his authorised representative established within the Union who carries out the obligations laid down in point 2, ensures, and declares that the constituents concerned satisfy the requirements of this Regulation. The manufacturer or his authorised representative established within the Union must draw up a written declaration of conformity or suitability for use in accordance with point 3 of Annex III to Regulation (EC) No 552/2004.
2. The manufacturer must establish the technical documentation described in point 4. He or his authorised representative established within the Union must keep the documentation at the disposal of the relevant national supervisory authorities for inspection purposes and at the disposal of the air navigation service providers that integrate these constituents in their systems, for a period ending at least 10 years after the last constituent has been manufactured. The manufacturer or his authorised representative established within the Union shall inform the Member States where and how the above technical documentation is available.
3. Where the manufacturer is not established within the Union, he shall designate the person(s) who place(s) the constituents on the Union market. These person(s) shall inform the Member States where and how the technical documentation can be made available.
4. Technical documentation must demonstrate the conformity of the constituents with the requirements of this Regulation. It must, as far as relevant for the assessment, cover the design, manufacture and operation of the constituents.
5. The manufacturer or his authorised representative must keep a copy of the declaration of conformity or suitability for use with the technical documentation.

## PART C

**Requirements for the verification of systems referred to in Article 12(1)**

1. The verification of systems identified in Article 2(1) shall demonstrate the conformity of these systems with the interoperability, performance and safety requirements of this Regulation in an assessment environment that reflects the operational context of these systems. In particular:
  - the verification of communication systems shall demonstrate that 8,33 kHz channel spacing is in use for voice communications in accordance with Article 4 and that the performance of the 8,33 kHz voice communication systems complies with Article 4(7),
  - the verification of systems for flight data processing shall demonstrate that the functionality described in Article 7(2) is properly implemented.
2. The verification of systems identified in Article 2(1) shall be conducted in accordance with appropriate and recognised testing practices.
3. Test tools used for the verification of systems identified in Article 2(1) shall have appropriate functionalities.
4. The verification of systems identified in Article 2(1) shall produce the elements of the technical file required by point 3 of Annex IV to Regulation (EC) No 552/2004 including the following elements:
  - description of the implementation,
  - the report of inspections and tests achieved before putting the system into service.
5. The air navigation service provider shall manage the verification activities and shall in particular:
  - determine the appropriate operational and technical assessment environment reflecting the operational environment,
  - verify that the test plan describes the integration of systems identified in Article 2(1) in an operational and technical assessment environment,

- verify that the test plan provides full coverage of the applicable interoperability, performance and safety requirements of this Regulation,
  - ensure the consistency and quality of the technical documentation and the test plan,
  - plan the test organisation, staff, installation and configuration of the test platform,
  - perform the inspections and tests as specified in the test plan,
  - write the report presenting the results of inspections and tests.
6. The air navigation service provider shall ensure that the systems identified in Article 2(1) operated in an operational assessment environment meet the interoperability, performance and safety requirements of this Regulation.
7. Upon satisfying 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 D

##### **Requirements for the verification of systems referred to in Article 12(2)**

1. The verification of systems identified in Article 2(1) shall demonstrate the conformity of these systems with the interoperability, performance and safety requirements of this Regulation in an assessment environment that reflects the operational context of these systems. In particular:
- the verification of communication systems shall demonstrate that 8,33 kHz channel spacing is in use for voice communications in accordance with Article 4 and that the performance of the 8,33 kHz voice communication systems complies with Article 4(7),
  - the verification of systems for flight data processing shall demonstrate that the functionality described in Article 7(2) is properly implemented.
2. The verification of systems identified in Article 2(1) shall be conducted in accordance with appropriate and recognised testing practices.
3. Test tools used for the verification of systems identified in Article 2(1) shall have appropriate functionalities.
4. The verification of systems identified in Article 2(1) shall produce the elements of the technical file required by point 3 of Annex IV to Regulation (EC) No 552/2004 including the following elements:
- description of the implementation,
  - the report of inspections and tests achieved before putting the system into service.
5. The air navigation service provider shall determine the appropriate operational and technical assessment 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:
- verify that the test plan describes the integration of systems identified in Article 2(1) in an operational and technical assessment environment,
  - verify that the test plan provides full coverage of the applicable interoperability, performance and safety requirements of this Regulation,
  - ensure the consistency and quality of the technical documentation and the test plan,
  - plan the test organisation, staff, installation and configuration of the test platform,
  - perform the inspections and tests as specified in the test plan,
  - write the report presenting the results of inspections and tests.
7. The notified body shall ensure that the systems identified in Article 2(1) operated in an operational assessment environment meet the interoperability, performance and safety requirements of this Regulation.
8. Upon satisfying 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 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.

## ANNEX V

**Conditions referred to in Article 12**

1. The air navigation service provider must have in place reporting methods within the organisation which ensure and demonstrate impartiality and independence of judgement 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 judgement 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 the equipment that enables them to properly perform the required checks.
  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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