

COMMISSION IMPLEMENTING REGULATION (EU) No 1206/2011**of 22 November 2011****laying down requirements on aircraft identification for surveillance 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)⁽¹⁾ 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 the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the framework Regulation)⁽²⁾ to develop requirements for the performance and the interoperability of surveillance within the European air traffic management network (EATMN). This Regulation is based on the resulting mandate report of 9 July 2010.
- (2) Individual aircraft identification should be established in accordance with the International Civil Aviation Organisation (ICAO) procedures before air traffic services using a surveillance system are provided for the aircraft.
- (3) Seamless operations depend on the unambiguous and continuous identification of individual aircraft operating as general air traffic under instrument flight rules throughout the airspace of the single European sky.
- (4) The current method for identifying individual aircraft uses discrete secondary surveillance radar transponder codes ("SSR codes" –), assigned in accordance with ICAO procedures and the air navigation plan for the European region.
- (5) Traffic growth over the last decade has resulted in a routine lack of available discrete SSR codes to meet demand during peak periods, and so individual aircraft identification in European airspace cannot currently be guaranteed.
- (6) An initial operational capability to use the downlinked aircraft identification feature should be deployed in a harmonised manner within a defined volume of airspace of the single European sky in order to reduce the overall demand for discrete SSR code assignments to achieve individual aircraft identification.
- (7) In order to optimise the availability of discrete SSR codes, improved and harmonised capabilities for the automatic assignment of SSR codes to aircraft should be deployed by those air navigation service providers that will not have a capability to use the downlinked aircraft identification feature.
- (8) A capability to use the downlinked aircraft identification feature throughout the airspace of the single European sky should be deployed in order to overcome the need for discrete SSR codes to identify general air traffic operating under instrument flight rules.
- (9) A reduction in the requirement for discrete SSR code assignments when using the downlinked aircraft identification feature - can best be achieved by the integrated initial flight plan processing system identifying those flights that are eligible for the assignment of an agreed conspicuity code and on air navigation service providers assigning the agreed conspicuity code to those eligible flights when identification using the downlinked aircraft identification feature is successful.
- (10) The downlinked aircraft identification feature can only be used to achieve individual aircraft identification where air navigation service providers deploy appropriate surveillance sensors, surveillance data processing and distribution system functionality, flight data processing system functionality, air-to-ground and ground-to-ground communications, controller display functionality, and provide for procedures and personnel training.
- (11) The degree to which air navigation service providers can actually employ the capability to use the downlinked aircraft identification feature to reduce the requirement for the assignment of discrete SSR codes is dependent on the level of equipment of aircraft with the downlinked aircraft identification feature, on the extent that the routes of those aircraft are within contiguous coverage

⁽¹⁾ OJ L 96, 31.3.2004, p. 26.⁽²⁾ OJ L 96, 31.3.2004, p. 1.

of systems providing the capability, and on the overarching requirement to ensure efficient and safe operations.

- (12) Warnings of the unintentional duplication of SSR code assignments to more than one aircraft should be provided to controllers in order to prevent the potential misidentification of aircraft.
- (13) The uniform application of specific procedures within the airspace of the single European sky is critical for the achievement of interoperability and seamless operations.
- (14) All changes to facilities and services that are made as a result of the implementation of this Regulation should be reflected by Member States in the ICAO European Air Navigation Plan through the normal procedure for amendment.
- (15) This Regulation should not cover military operations and training as referred in Article 1(2) of Regulation (EC) No 549/2004.
- (16) With a view to maintaining or enhancing existing safety levels of operations, Member States should be required to ensure that the parties concerned conduct a safety assessment including hazard identification, risk assessment and mitigation processes. Harmonised implementation of these processes to the systems covered by this Regulation requires 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 either the conformity or the suitability for use of constituents as well as the verification of systems.
- (18) In the case of air traffic services provided primarily to aircraft flying as general air traffic under military supervision, procurement constraints could prevent compliance with this Regulation.
- (19) The measures provided for in this Regulation are in accordance with the opinion of the Single Sky Committee,

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter

This Regulation lays down requirements for the systems contributing to the provision of surveillance information, their constituents and associated procedures in order to ensure the unambiguous and continuous individual identification of aircraft within the EATMN.

Article 2

Scope

1. This Regulation shall apply to the surveillance chain constituted of:
- airborne constituents of surveillance systems and their associated procedures;
 - ground-based surveillance systems, their constituents and associated procedures;
 - systems and procedures for air traffic services, in particular flight data processing systems, surveillance data processing systems and human machine interface systems;
 - ground-to-ground and air-to-ground communication systems, their constituents and associated procedures used for the distribution of surveillance data.
2. This Regulation shall apply to all flights operating as general air traffic in accordance with instrument flight rules within the airspace defined in Article 1(3) of Regulation (EC) No 551/2004 of the European Parliament and of the Council ⁽¹⁾.

Article 3

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:

- 'aircraft identification' means a group of letters, figures or a combination thereof which is either identical to, or the coded equivalent of, the aircraft call sign to be used in air-ground communications, and which is used to identify the aircraft in ground-ground air traffic services communications;
- 'SSR code' means one of the 4 096 secondary surveillance radar identity codes that can be transmitted by airborne constituents of surveillance systems;
- 'discrete SSR code' means a four-digit secondary surveillance radar identity code with the last two digits not being "00";
- 'downlinked aircraft identification' means the aircraft identification transmitted by airborne constituents of surveillance systems via an air-to-ground surveillance system;
- 'conspicuity code' means an individual SSR code designated for special purposes;
- 'over-flight' means a flight that enters defined airspace from an adjacent sector, then transits across the defined airspace and exits the defined airspace into an adjacent sector outside;

⁽¹⁾ OJ L 96, 31.3.2004, p. 20.

- (7) 'arriving flight' means a flight that enters defined airspace from an adjacent sector, then transits across the defined airspace and lands at a destination within the defined airspace;
- (8) 'departing flight' means a flight that originates at an aerodrome within defined airspace, then transits across the defined airspace and either lands at an aerodrome within the defined airspace or exits the defined airspace into an adjacent sector outside;
- (9) 'operator' means a person, organisation or enterprise engaged in or offering to engage in an aircraft operation;
- (10) 'code allocation list' means a document specifying the overall distribution of SSR codes to Member States and air traffic service (ATS) units that has been agreed by Member States and published in the air navigation plan for the ICAO European Region;
- (11) 'co-operative surveillance chain' means a surveillance chain requiring both ground and airborne components to determine surveillance data items;
- (12) 'integrated initial flight plan processing system' 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.
4. Air navigation service providers establishing individual aircraft identification using discrete SSR codes outside of the airspace defined in Annex I shall ensure that they comply with the requirements laid down in Annex III.
5. Air navigation service providers shall ensure that:
- (a) systems referred to in points (b), (c) and (d) of Article 2(1) are deployed as necessary to support the requirements laid down in paragraphs 3 and 4 of this Article;
- (b) systems or procedures referred to in points (b), (c) and (d) of Article 2(1) are deployed as necessary to inform controllers when SSR code assignments are unintentionally duplicated.
6. Member States shall ensure that:
- (a) volumes of airspace are declared to the centralised flight planning processing and distribution service referred to in point (1) of Annex II to support the requirements of paragraphs 1 and 2 of this Article and point (b) of this paragraph;
- (b) the integrated initial flight plan processing system communicates to all affected air navigation service providers those flights that are eligible for the use of the conspicuity code referred to in point (c);
- (c) a single conspicuity code is agreed by all Member States and coordinated with European third countries for assignment solely to aircraft where individual aircraft identification is established by using the downlinked aircraft identification feature.

Article 4

Performance requirements

1. Member States responsible for the provision of air traffic services in the airspace defined in Annex I shall ensure that a capability is implemented to be able to establish individual aircraft identification using downlinked aircraft identification for:

- (a) at least 50 % of all over-flights of the defined airspace of the individual Member State and;
- (b) at least 50 % of the combined total number of all arriving flights and departing flights within the defined airspace of the individual Member State.

2. Air navigation service providers shall ensure that, at the latest, by 2 January 2020, the cooperative surveillance chain has the necessary capability to allow them to establish individual aircraft identification using the downlinked aircraft identification feature.

3. Air navigation service providers establishing individual aircraft identification using the downlinked aircraft identification feature shall ensure that they comply with the requirements laid down in Annex II.

Article 5

Safety requirements

1. Member States shall ensure that any changes to the existing systems referred to in points (b), (c) and (d) of 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.

2. During the assessments identified in paragraph 1, the requirements set out in Annex IV shall be taken into consideration as a minimum.

Article 6

Conformity or suitability for use of constituents

Before issuing an EC declaration of conformity or suitability for use provided for in Article 5 of Regulation (EC) No 552/2004, manufacturers of constituents of the systems referred to in Article 2(1) of this Regulation or their authorised representatives established in the Union, shall assess the conformity or suitability for use of those constituents in compliance with the requirements set out in Annex V.

However, certification processes complying with Regulation (EC) No 216/2008 of the European Parliament and of the Council ⁽¹⁾, shall be considered as acceptable procedures for the conformity assessment of constituents if they include the demonstration of compliance with the applicable performance and safety requirements of this Regulation.

Article 7

Verification of systems

1. Air navigation service providers which can demonstrate or have demonstrated that they fulfil the conditions set out in Annex VI shall conduct a verification of the systems referred to in points (b), (c) and (d) of Article 2(1) in compliance with the requirements set out in Part A of Annex VII.
2. Air navigation service providers which cannot demonstrate that they fulfil the conditions set out in Annex VI shall sub-contract to a notified body a verification of the systems referred to in points (b), (c) and (d) of Article 2(1). This verification shall be conducted in compliance with the requirements set out in Part B of Annex VII.
3. Certification processes complying with Regulation (EC) No 216/2008 shall be considered as acceptable procedures for the verification of systems if they include the demonstration of compliance with the applicable performance and safety requirements of this Regulation.

Article 8

Additional requirements for air navigation service providers

1. Air navigation service providers shall ensure that all personnel concerned are made duly aware of the requirements laid down in this Regulation and that they are adequately trained for their job functions.
2. Air navigation service providers shall:
 - (a) develop and maintain operations manuals containing the necessary instructions and information to enable all related 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 configuration management;
 - (c) ensure that the working methods and operating procedures comply with this Regulation.

Article 9

Additional requirements for operators

1. Operators shall take the necessary measures to ensure that the personnel operating and maintaining surveillance equipment

are made aware of the relevant provisions of this Regulation and that they are adequately trained for their job functions, and that instructions about how to use that equipment are available in the cockpit.

2. Operators shall take the necessary measures to ensure that the downlinked aircraft identification feature is provided on aircraft when operationally required as set out in Article 4(1) and (2).

3. Operators shall ensure that the setting of the downlinked aircraft identification feature referred to in paragraph 4 complies with item 7 'aircraft identification' of the flight plan referred to in point 2 of the Annex to Commission Regulation (EC) No 1033/2006 ⁽²⁾.

4. Operators of those aircraft having the capability to change the downlinked aircraft identification feature referred to in paragraph 2 when airborne shall ensure that the downlinked aircraft identification feature is not changed during the flight unless requested by the air navigation service provider.

Article 10

Additional requirements for Member States

Member States shall ensure compliance with this Regulation including the publication of relevant information in the national aeronautical information publications.

Article 11

Exemptions

1. For the specific case of approach areas where air traffic services are provided by military units or under military supervision and when procurement constraints prevent compliance with Article 4(2), Member States shall communicate to the Commission by 31 December 2017 at the latest, the date of compliance with downlinked aircraft identification that shall not be later than 2 January 2025.
2. Following consultation with the Network Manager and not later than 31 December 2018, the Commission may review the exemptions communicated under paragraph 1 that could have a significant impact on the EATMN.

Article 12

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 9 February 2012.

⁽¹⁾ OJ L 79, 19.3.2008, p. 1.

⁽²⁾ OJ L 186, 7.7.2006, p. 46.

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

Done at Brussels, 22 November 2011.

For the Commission
The President
José Manuel BARROSO

ANNEX I

Airspace referred to in Article 4(1) and (4)

The airspace referred to in Article 4(1) and (4) shall include the following Flight Information Regions (FIR) and Upper Flight information Regions (UIR):

- 1) Wien FIR;
 - 2) Praha FIR;
 - 3) Brussels FIR/UIR;
 - 4) Bordeaux, Brest, Marseille, Paris and Reims FIRs, and the France UIR;
 - 5) Bremen, Langen and Munchen FIRs, and Hannover and Rhein UIRs;
 - 6) Athinai FIR and Hellas UIR;
 - 7) Budapest FIR;
 - 8) Brindisi FIR/UIR, Milano FIR/UIR and Roma FIR/UIR;
 - 9) Amsterdam FIR;
 - 10) Bucharest FIR.
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ANNEX II

Performance requirements referred to in Article 4(3)

1. Airspace volumes where individual aircraft identification is established using the downlinked aircraft identification feature shall be declared to the centralised flight planning processing and distribution service for input into the integrated initial flight plan processing system.
 2. Except when one of the conditions set out in point (3) apply, the conspicuity code established in accordance with point (c) of Article 4(6) shall be assigned to departing aircraft or to aircraft for which, in accordance with point 6, a code change is required, where the following conditions apply:
 - (a) the downlinked aircraft identification matches the corresponding entry in the flight plan for that aircraft;
 - (b) the integrated initial flight plan processing system has communicated that the aircraft is eligible for the assignment of the conspicuity code.
 3. The conspicuity code shall not be assigned to aircraft referred to in point (2) if any of the following conditions apply:
 - (a) contingency measures that require the assignment of discrete SSR codes to aircraft have been put in place by an air navigation service provider experiencing unplanned ground surveillance sensor outages;
 - (b) exceptional military contingency measures require air navigation service providers to assign discrete SSR codes to aircraft;
 - (c) an aircraft which is eligible for the assignment of the conspicuity code established in accordance with point (c) of Article 4(6) exits or is otherwise diverted outside the airspace volume referred to in point (1).
 4. Aircraft that are not assigned the conspicuity code established in accordance with point (c) of Article 4(6) shall be assigned an SSR code that is in compliance with a code allocation list agreed by Member States and coordinated with European third countries.
 5. When an SSR code has been assigned to an aircraft, a check shall be made at the earliest opportunity to confirm that the SSR code set by the pilot is identical to that assigned to the flight.
 6. SSR codes assigned to aircraft being transferred from air navigation service providers in neighbouring States shall be automatically checked to see if the assignments can be retained in compliance with a code allocation list agreed by Member States and coordinated with European third countries.
 7. Formal arrangements with the following minimum content shall be established with neighbouring air navigation service providers that are establishing individual aircraft identification by using discrete SSR codes:
 - (a) an obligation on the neighbouring air navigation service providers to transfer aircraft with verified discrete SSR codes assigned in compliance with a code allocation list agreed by Member States and coordinated with European third countries;
 - (b) an obligation to notify accepting units about any observed irregularity in the operation of airborne constituents of surveillance systems.
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ANNEX III

Performance requirements referred to in Article 4(4)

Individual systems used for the assignment of SSR codes shall have the following functional capabilities:

- (a) SSR codes shall be automatically assigned to aircraft in compliance with a code allocation list agreed by Member States and coordinated with European third countries;
- (b) SSR codes assigned to aircraft being transferred from air navigation service providers in neighbouring States shall be checked to see if the assignments can be retained in compliance with a code allocation list agreed by Member States and coordinated with European third countries;
- (c) SSR codes shall be classified into different categories to allow for differentiated code assignment;
- (d) SSR codes from the different categories referred to in point (c) shall be assigned according to the directions of flights;
- (e) multiple simultaneous assignments of the same SSR code shall be made to flights operating in conflict-free directions.

ANNEX IV

Requirements referred to in Article 5

1. The performance requirements specified in Article 4(3), (4), (5)(b) and (6).
2. The additional requirements specified in Article 9(1), (2), (3) and (4).

ANNEX V

Requirements for the assessment of the conformity or suitability for use of constituents referred to in Article 6

1. The verification of compliance activities shall demonstrate the conformity or suitability for use of constituents with the applicable requirements of this Regulation whilst these constituents are in operation in the test environment.
 2. The manufacturer shall manage the conformity assessment 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 in accordance with the test plan;
 - (g) write the report presenting the results of inspections and tests.
 3. The manufacturer shall ensure that the constituents referred to in Article 6, integrated in the test environment meet the applicable requirements of this Regulation.
 4. Upon satisfying completion of verification of conformity or suitability for use, the manufacturer shall under its responsibility draw up the EC declaration of conformity or suitability for use, specifying notably the applicable requirements of this Regulation met by the constituent and its associated conditions of use in accordance with point (3) of Annex III to Regulation (EC) No 552/2004.
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ANNEX VI

Conditions referred to in Article 7(1) and (2)

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 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 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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ANNEX VII

PART A

Requirements for the verification of systems referred to in Article 7(1)

1. The verification of systems identified in points (b), (c) and (d) of Article 2(1) shall demonstrate the compliance of those systems with the performance and safety requirements of this Regulation in an assessment environment that reflects the operational context of those systems.
2. The verification of systems identified in points (b), (c) and (d) of 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 points (b), (c) and (d) of Article 2(1) shall have appropriate functionalities.
4. The verification of systems identified in points (b), (c) and (d) of 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:
 - (a) description of the implementation;
 - (b) 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:
 - (a) determine the appropriate operational and technical assessment environment reflecting the operational environment;
 - (b) verify that the test plan describes the integration of systems identified in points (b), (c) and (d) of Article 2(1) in an operational and technical assessment environment;
 - (c) verify that the test plan provides full coverage of the applicable performance and safety 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 inspections and tests.
6. The air navigation service provider shall ensure that the systems identified in points (b), (c) and (d) of Article 2(1) operated in an operational assessment environment meet the 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 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.

PART B

Requirements for the verification of systems referred to in Article 7(2)

1. The verification of systems identified in points (b), (c) and (d) of Article 2(1) shall demonstrate the compliance of those systems with the performance and safety requirements of this Regulation in an assessment environment that reflects the operational context of these systems.
2. The verification of systems identified in points (b), (c) and (d) of 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 points (b), (c) and (d) of Article 2(1) shall have appropriate functionalities.
 4. The verification of systems identified in points (b), (c) and (d) of 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:
 - (a) description of the implementation;
 - (b) 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:
 - (a) verify that the test plan describes the integration of systems identified in points (b), (c) and (d) of Article 2(1) in an operational and technical assessment environment;
 - (b) verify that the test plan provides full coverage of the applicable performance and safety 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 inspections and tests.
 7. The notified body shall ensure that the systems identified in points (b), (c) and (d) of Article 2(1) operated in an operational assessment environment meet the 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.
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