Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements on data link services for the single European sky (Text with EEA relevance)

COMMISSION REGULATION (EC) No 29/2009

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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)[(1)] and in particular Article 3(1) thereof,

Having regard to 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)[(2)], and in particular Article 8(2) thereof,

Whereas:

(1) Observed and expected increases in air traffic levels within Europe require parallel increases in air traffic control capacity. This leads to a demand for operational improvements, in particular to improve efficiency of communications between controllers and pilots. Voice communications channels are becoming progressively congested and should be supplemented by air-ground data link communications.

(2) A number of studies and trials performed within the Community and Eurocontrol confirmed the capability of data link services to enable the provision of additional air traffic control capacity. These services should be introduced in a coordinated manner to optimise the potential benefits arising from them.

(3) Eurocontrol has been mandated in accordance with Article 8(1) of Regulation (EC) No 549/2004 to develop requirements for the coordinated introduction of data link services. This Regulation is based on the resulting mandate report of 19 October 2007.

(4) This Regulation should not cover military operations and training as referred to in Article 1(2) of Regulation (EC) No 549/2004.

(5) The early introduction of data link services to complement voice controller pilot communications in the en route phase is foreseen by the European Air Traffic Management Master Plan (the ATM Master Plan) resulting from the definition phase of the SESAR project based on Council Regulation (EC) No 219/2007 of 27 February 2007 on the establishment of a Joint Undertaking to develop the new generation European air traffic management system (SESAR)[(3)].

Changes to legislation: *Commission Regulation (EC) No 29/2009 is up to date with all changes known to be in force on or before 27 December 2020. There are changes that may be brought into force at a future date. Changes that have been made appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes*

(6) Data link services should be introduced in continuous and homogeneous parts of the airspace in the single European sky, starting with high density upper airspace. Considering the importance of data link services for the further development of the European Air Traffic Management Network (hereinafter EATMN), their use should be progressively expanded to the largest part of the airspace of the single European sky as defined in Article 1(3) of Regulation (EC) No 551/2004 of the European Parliament and of the Council of 10 March 2004 on the organisation and use of the airspace in the single European sky (the airspace Regulation)[(4)].

(7) A significant number of data link services have been defined by the International Civil Aviation Organisation (hereinafter ICAO) and by the European Organisation for Civil Aviation Equipment (hereinafter Eurocae). Only those which have been sufficiently validated at Eurocontrol level should be the subject of mandatory introduction, based on the standards defined by these organisations.

(8) Traffic capacity increase enabled by data link services is dependent upon the percentage of flights operated with data link capability. A significant percentage of flights, not less than 75 %, should be equipped with such capability in order to allow sufficient capacity increase.

(9) Operators need sufficient notice to equip their aircraft with new capabilities, both for new aircraft and for existing fleet. This should be taken into account when setting dates for mandatory equipment.

(10) A number of aircraft, mainly for long haul oceanic operations, have already been equipped with data link capability using standards known as Future Air Navigation Systems (FANS) 1/A. It would not be economically justified to request operators to install further data link equipment on such aircraft to comply with the requirements of this Regulation. However, convergence should be achieved in the longer term between technical solutions used for oceanic operations and those defined by this Regulation. A suitable date should therefore be set in this respect.

(11) The conditions for the dispatch of an aircraft with data link constituents temporarily inoperative should be specified in the applicable minimum equipment list required by Annex III to Council Regulation (EEC) No 3922/91 of 16 December 1991 on the harmonisation of technical requirements and administrative procedures in the field of civil aviation[(5)] and by Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC[(6)] and its implementing rules.

(12) Criteria for possible exemption, based in particular on economic or compelling technical considerations, should be identified allowing operators exceptionally not to equip specific types of aircraft with data link capability.

(13) Transport type State aircraft represent the largest category of State aircraft flying as general air traffic in the airspace in which this Regulation applies. When Member States decide to equip such type of new aircraft with data link capability relying upon standards

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which are not specific to military operational requirements, they should implement technical solutions complying with this Regulation.

(14) The uniform application within the airspace of the single European sky of specific procedures relating to the use of data link is critical for the achievement of interoperability and seamless operations.

(15) ICAO has defined standardised air-ground applications context management (hereinafter CM) and controller-pilot data link communications (hereinafter CPDLC) for the introduction of data link services. Air traffic service providers and operators should support these applications and use a common standardised message set to ensure end-to-end interoperable implementations of data link services.

(16) Several communication protocols can be used for exchanging data between air-ground applications. However a common set should be deployed as a minimum on the ground side to secure overall interoperability within the airspace of applicability of this Regulation. The protocols defined by ICAO based on the Aeronautical Telecommunication Network (hereinafter ATN) and the very high frequency digital link Mode 2 (hereinafter VDL 2) are currently considered to be the only validated solution for harmonised deployment. Member States should therefore ensure the availability of this solution.

(17) ICAO supplementary regional procedures applicable in Europe are being modified in order to permit the mandatory carriage of data link constituents in the airspace of some Member States.

(18) The possibility should be left for operators and organisations providing communication services for the exchange of data between air-ground applications to use different protocols other than ATN/VDL 2. These protocols should, however, comply with appropriate requirements ensuring that the end-to-end interoperability between air traffic services units and aircraft is maintained.

(19) Air traffic service (hereinafter ATS) providers may choose to rely upon other organisations for the provision of air-ground data link communications services. To ensure appropriate safety, security and efficiency of these services, service level agreements should in this case be established between the parties concerned.

(20) In order to ensure end-to-end interoperability of data link services, aircraft and ATS units with data link capability should be able to establish data link communications irrespective of the arrangements made by operators and ATS providers to ensure the availability of air–ground communications services. Appropriate measures should therefore be taken to this effect.

(21) The information about the data link capability of flights should be included in the flight plan, processed and transmitted between the ATS units. The logon information allowing the use of air-ground data link applications and the possibility for the next ATS unit to start exchanging data with aircraft should also be processed and transmitted between ATS units.

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(22) Measures should be taken by air navigation service providers and other entities providing air-ground data link communications services to ensure appropriate security of information exchanges.

(23) The quality of service of air-ground data link communications should be regularly monitored by ATS providers.

(24) A common addressing scheme should be used to identify in an unambiguous manner all air and ground stations concerned by data link exchanges.

(25) With a view to maintaining or enhancing existing safety levels of operations, Member States should be required to ensure that the parties concerned carry out a safety assessment, including hazard identification, risk assessment and mitigation processes.

(26) 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 the conformity or suitability for use of constituents as well as the verification of systems.

(27) 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 and scope

1 This Regulation lays down requirements for the coordinated introduction of data link services based on air-ground point-to-point data communications as defined in Article 2(5).

2 This Regulation shall apply to:

a flight data processing systems, their constituents and associated procedures, and human-machine interface systems, their constituents and associated procedures, serving air traffic control units providing services to general air traffic;

b airborne human-machine interface constituents and associated procedures;

c air-ground communication systems, their constituents and associated procedures.

[[F1]3 This Regulation shall apply to all flights operating as general air traffic in accordance with instrument flight rules within the airspace above FL285 defined in Parts A and B of Annex I.**]**

4 This Regulation shall apply to air traffic service providers (hereinafter ATS providers) providing services to general air traffic within the airspace referred to in paragraph 3 and in accordance with the relevant dates of application.

Textual Amendments

F1 Substituted by Commission Implementing Regulation (EU) 2015/310 of 26 February 2015 amending Regulation (EC) No 29/2009 laying down requirements on data link services for the single European sky and repealing Implementing Regulation (EU) No 441/2014 (Text with EEA relevance).

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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. ‘data link service’ means a set of related air traffic management transactions, supported by air-ground data link communications, which have a clearly defined operational goal and begin and end on an operational event;

2. ‘operator’ means a person, organisation or enterprise engaged in, or offering to engage in, an aircraft operation;

3. ‘air traffic services unit’ (hereinafter ATS unit) means a unit, civil or military, responsible for providing air traffic services;

4. ‘service level agreement’ means that part of a service contract between organisations in which a certain level of service is agreed, in particular in relation to the quality and performance of the data communications service;

5. ‘air–ground point-to-point data communication’ means a two-way communication between an aircraft and a ground communication entity relying upon a set of distributed functions to achieve:

   (a) the transmission and reception of uplink and downlink bit frames over a mobile data link between ground and aircraft communication systems;

   (b) the transmission and reception of data units between ground and aircraft systems hosting the air-ground applications with:

      (i) the relay of data units throughout ground communication paths and mobile data links;

      (ii) the cooperative mechanisms of both ends for the transport of data units;

6. ‘State aircraft’ means any aircraft used for military, customs and police;

7. ‘transport type State aircraft’ means fixed wing State aircraft that are designed for the purpose of transporting persons and/or cargo;

8. ‘air-ground application’ means a set of cooperative air-ground functions in support of air traffic services;

9. ‘end-to-end communication’ means the transfer of information between peer air-ground applications;

10. ‘air-ground communication’ means a two-way communication between aircraft and ground communication systems;

11. ‘security policy’ means a set of objectives, rules of behaviour for users and administrators, and requirements for system configuration and management that collectively are designed to safeguard systems and communication resources