

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)

*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.

[<sup>F13</sup> 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 \(Text with EEA relevance\)](#).

*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;

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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 concerned with the provision of data link services against acts of unlawful interference;
12. 'addressing information' means information pertaining to the system or network address of an entity participating in air-ground data link communication and enabling the location of the entity to be unambiguously determined;
13. 'integrated initial flight plan processing system' (hereinafter 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;
14. 'inoperative' in relation to an airborne constituent means that the constituent does not accomplish its intended purpose or is not consistently functioning within its operating limits or tolerances.

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## Article 3

### Data link services

1 ATS providers shall ensure that ATS units providing air traffic services within the airspace referred to in Article 1(3) have the capability to provide and operate the data link services defined in Annex II.

[<sup>F12</sup> Without prejudice to paragraph 3, operators shall ensure that aircraft operating flights referred to in Article 1(3) have the capability to operate the data link services defined in Annex II as from 5 February 2020.

[<sup>F23</sup> Paragraph 2 shall not apply to:

- a aircraft with an individual certificate of airworthiness first issued before 1 January 1995;
- b aircraft which have an individual certificate of airworthiness first issued before 31 December 2003 and which will cease operation in the airspace referred to in paragraph 3 of Article 1 before 31 December 2022;
- c aircraft with an individual certificate of airworthiness first issued before 1 January 2018 and fitted prior to this date with data link equipment compliant with the requirements of one of the Eurocae documents specified in point 10 of Annex III;
- d aircraft which have a certified maximum seating capacity of 19 passengers or less and a maximum certified take-off mass of 45 359 Kg (100 000 lbs) or less and with a first individual certificate of airworthiness issued before 5 February 2020;
- e State aircraft;
- f aircraft flying in the airspace referred to in paragraph 3 of Article 1 for testing, delivery or for maintenance purposes or with data link constituents temporarily inoperative under conditions specified in the applicable minimum equipment list required by point 1 of Annex III.]

4 Member States which decide to equip new transport type State aircraft entering into service after 1 January 2019 with data link capability relying upon standards which are not specific to military operational requirements, shall ensure that those aircraft have the capability to operate the data link services defined in Annex II.]

#### 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 \(Text with EEA relevance\)](#).
- F2** Substituted by [Commission Implementing Regulation \(EU\) 2019/1170 of 8 July 2019 amending and correcting Regulation \(EC\) No 29/2009 laying down requirements on data link services for the single European sky \(Text with EEA relevance\)](#).

## Article 4

### Associated procedures

ATS providers providing air traffic services and operators using air traffic services supported by the data link services defined in Annex II shall apply common standardised

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procedures consistent with relevant provisions of the International Civil Aviation Organisation (hereinafter ICAO) for:

1. the establishment of controller — pilot data link communications (hereinafter CPDLC);
2. the exchange of operational CPDLC messages;
3. the transfer of CPDLC;
4. the temporary discontinuation of the use of CPDLC pilot requests;
5. failure and shutdown of CPDLC;
6. the filing of flight plans regarding information pertaining to data link capability.

#### *Article 5*

#### **Obligations of ATS providers for data link communications**

1 ATS providers shall ensure that the ground systems referred to in Article 1(2) and their constituents support the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

2 ATS providers shall ensure that the ground systems referred to in Article 1(2)(c) and their constituents apply end-to-end communications in compliance with the requirements of Part A of Annex IV for data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

3 ATS providers that rely upon other organisations for the provision of communication services for data exchanges with aircraft which are necessary for air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III shall ensure that those services are provided in accordance with the terms and conditions of a service level agreement, including in particular:

- a the description of communication services in accordance with the requirements of the data link services defined in Annex II;
- b the description of the security policy put in place to secure data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III;
- c the relevant materials to be supplied for the monitoring of the quality of service and performances of communication services.

4 ATS providers shall make appropriate arrangements to ensure that data exchanges can be established with all aircraft flying in the airspace under their responsibility and having data link capability in accordance with the requirements of this Regulation, with due regard to possible coverage limitations inherent in the communication technology used.

5 ATS providers shall implement in their flight data processing systems the log on forward and next authority notification processes between ATC units in accordance with Commission Regulation (EC) No 1032/2006<sup>(1)</sup> as far as the requirements for automatic systems for the exchange of flight data supporting data link services are concerned.

6 ATS providers shall monitor the quality of service of communication services and verify their conformance with the level of performance required for the operational environment under their responsibility.

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## Article 6

### Obligations of operators for data link communications

1 Operators shall ensure that airborne systems referred to in Article 1(2)(c) and their constituents installed on-board aircraft referred to in [F2Article 3(2)] support the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

2 Operators shall ensure that airborne systems referred to in Article 1(2)(c) and their constituents installed on-board aircraft referred to in [F2Article 3(2)] apply end-to-end communications in compliance with the requirements of Part A of Annex IV for data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

3 Operators shall ensure that airborne systems referred to in Article 1(2)(c) and their constituents installed on-board aircraft referred to in [F2Article 3(2)] apply air-ground communications in compliance with the requirements of Part B or Part C of Annex IV for data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

4 Operators referred to in paragraph 3 shall make appropriate arrangements to ensure that data exchanges can be established between their aircraft having data link capability and all ATS units which may control the flights they operate in the airspace referred to in Article 1(3), with due regard to possible coverage limitations inherent in the communication technology used.

#### Textual Amendments

- F2** Substituted by [Commission Implementing Regulation \(EU\) 2019/1170 of 8 July 2019 amending and correcting Regulation \(EC\) No 29/2009 laying down requirements on data link services for the single European sky \(Text with EEA relevance\)](#).

## Article 7

### General obligations of Member States for data link communications

1 Member States which have designated ATS providers in the airspace referred to in Article 1(3) shall ensure that air-ground communications services applying the requirements of Part B of Annex IV are available to operators for aircraft flying within that airspace under their responsibility for data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III, with due regard to possible coverage limitations inherent in the communication technology used.

2 Member States shall ensure that air navigation service providers and other entities providing communication services implement an appropriate security policy for data exchanges of the data link services defined in Annex II, notably by applying common security rules to protect distributed physical resources supporting those data exchanges.

3 Member States shall ensure that harmonised procedures apply for the management of addressing information in order to unambiguously identify air and ground communications systems supporting data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

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## Article 8

### Data link communication for transport type State aircraft

1 Member States shall ensure that airborne systems referred to in Article 1(2)(c) and their constituents installed on-board transport type State aircraft referred to in [F<sup>2</sup>Article 3(4)] support the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

2 Member States shall ensure that airborne systems referred to in Article 1(2)(c) and their constituents installed on-board transport type State aircraft referred to in [F<sup>2</sup>Article 3(4)] apply end-to-end communications in compliance with requirements of Part A of Annex IV for data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

3 Member States shall ensure that airborne systems referred to in Article 1(2)(c) and their constituents installed on-board transport type State aircraft referred to in [F<sup>2</sup>Article 3(4)] apply air-ground communications in compliance with requirements specified in Part B or Part C of Annex IV for data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III.

#### Textual Amendments

- F2** Substituted by [Commission Implementing Regulation \(EU\) 2019/1170 of 8 July 2019 amending and correcting Regulation \(EC\) No 29/2009 laying down requirements on data link services for the single European sky \(Text with EEA relevance\)](#).

## Article 9

### Obligations of air navigation services providers and other entities for data link communications

Air navigation service providers and other entities providing communication services for data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III shall ensure that the ground systems referred to in Article 1(2)(c) apply air-ground communications in compliance with requirements of Part B or Part C of Annex IV.

## Article 10

### Safety requirements

Member States shall take the necessary measures to ensure that any changes to the existing systems referred to in Article 1(2) or the introduction of new systems are preceded by a safety assessment, including hazard identification, risk assessment and mitigation, conducted by the parties concerned.

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## Article 11

### Conformity or suitability for use of constituents

Before issuing an EC declaration of conformity or suitability for use 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, or their authorised representatives established in the Community, shall assess the conformity or suitability for use of those constituents in accordance with the requirements set out in Annex V.

However, certification airworthiness processes complying with Regulation (EC) No 216/2008, when applied to airborne constituents referred to in Article 1(2)(b) and (c) of this Regulation, shall be considered acceptable procedures for the conformity assessment of those constituents if they include the demonstration of compliance with the interoperability, performance and safety requirements of this Regulation.

## Article 12

### Verification of systems

1 Air navigation service providers who demonstrate or have demonstrated that they fulfil the conditions set out in Annex VI shall conduct a verification of the systems referred to Article 1(2)(a) and (c) 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 subcontract to a notified body a verification of the systems referred to in Article 1(2)(a) and (c). That verification shall be conducted in accordance with the requirements set out in Part B of Annex VII.

## Article 13

### Additional requirements

1 ATS providers shall ensure that air-ground data exchanges of the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III, are recorded in accordance with the ICAO standards specified in points 6, 7 and 8 of Annex III, insofar as they relate to the ground-based recording function of data link communications.

2 The Eurocae document specified in point 9 of Annex III shall be considered sufficient means of compliance with regard to the requirements for recording of air-ground data exchanges referred to in paragraph 1 identified in the ICAO standards specified in points 6, 7 and 8 of Annex III.

3 ATS providers shall:

- a develop and maintain operations manuals containing the necessary instructions and information to enable all personnel concerned 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.

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4 Member States shall take the necessary measures to 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 personnel concerned 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 configuration management;
- c ensures that the working methods and operating procedures comply with this Regulation.

5 Air navigation service providers shall ensure that all personnel concerned are made duly aware of the relevant provisions of this Regulation and that they are adequately trained for their job functions.

6 Operators shall take the necessary measures to ensure that the personnel operating data link equipment are made duly aware of this Regulation and that they are adequately trained for their job functions, and that instructions about how to use data link equipment are available in the cockpit where feasible.

7 Member States shall take the necessary measures to ensure that the personnel involved in flight planning who operate the IFPS are made duly aware of the requirements laid down in this Regulation and that they are adequately trained for their job functions.

8 Member States shall ensure that relevant information on the use of data link services is published in the national aeronautical information publications.

#### *Article 14*

### **Exemptions**

1 When particular circumstances, based on the criteria defined in paragraph 3, prevent aircraft of specific types from complying with the requirements of this Regulation, the Member States concerned shall communicate to the Commission by 31 December 2012 at the latest, detailed information justifying the need for granting exemptions to these aircraft types.

2 The Commission shall examine the requests for exemption referred to in paragraph 1 and, following consultation with the parties concerned, shall adopt a decision in accordance with the procedure referred to in [F<sup>2</sup>Article 127(3) of Regulation (EU) 2018/1139].

[F<sup>2</sup>3 The criteria referred to in paragraph 1 shall be the following:

- a aircraft types/models combinations, reaching the end of their production life and being produced in limited numbers; and
- b aircraft types/models combinations for which re-engineering costs required would be disproportionate due to old design.]

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#### **Textual Amendments**

- F2** Substituted by [Commission Implementing Regulation \(EU\) 2019/1170 of 8 July 2019 amending and correcting Regulation \(EC\) No 29/2009 laying down requirements on data link services for the single European sky \(Text with EEA relevance\).](#)



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## Article 15

### 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*.

This Regulation shall apply from [F<sup>1</sup>5 February 2018].

#### 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 \(Text with EEA relevance\)](#).

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

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- (1) [OJ L 186, 7.7.2006, p. 27.](#)

### Changes to legislation:

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#### Changes and effects yet to be applied to :

- Art. 1(1) word omitted by [S.I. 2019/459 reg. 125\(2\)](#)
- Art. 1(3) words substituted by [S.I. 2019/459 reg. 125\(3\)](#)
- Art. 3(4) words inserted by [S.I. 2019/459 reg. 127\(b\)](#)
- Art. 3(4) words substituted by [S.I. 2019/459 reg. 127\(a\)](#)
- Art. 7 heading words substituted by [S.I. 2019/459 reg. 128\(2\)](#)
- Art. 7(1) word substituted by [S.I. 2019/459 reg. 128\(3\)\(b\)](#)
- Art. 7(1) words substituted by [S.I. 2019/459 reg. 128\(3\)\(a\)](#)
- Art. 7(2) words substituted by [S.I. 2019/459 reg. 128\(4\)](#)
- Art. 7(3) words substituted by [S.I. 2019/459 reg. 128\(4\)](#)
- Art. 8(1)-(3) words substituted by [S.I. 2019/459 reg. 129](#)
- Art. 10 words substituted by [S.I. 2019/459 reg. 130](#)
- Art. 12(2) words substituted by [S.I. 2019/459 reg. 132](#)
- Art. 13(4) omitted by [S.I. 2019/459 reg. 133](#)
- Art. 13(7) omitted by [S.I. 2019/459 reg. 133](#)
- Art. 13(8) omitted by [S.I. 2019/459 reg. 133](#)
- Art. 14 omitted by [S.I. 2019/459 reg. 134](#)
- Art. 15 omitted by [S.I. 2019/459 reg. 135](#)

#### Changes and effects yet to be applied to the whole legislation item and associated provisions

- Signature words omitted by [S.I. 2019/459 reg. 136](#)
- Annex 1 omitted by [S.I. 2019/459 reg. 137](#)
- Art. 2(13) words omitted by [S.I. 2019/459 reg. 126\(a\)](#)
- Art. 2(13) words substituted by [S.I. 2019/459 reg. 126\(b\)](#)
- Annex 5 Point 4 word omitted by [S.I. 2019/459 reg. 138](#)
- Annex 7 Pt. A Point 7 word omitted by [S.I. 2019/459 reg. 139\(2\)\(a\)](#)
- Annex 7 Pt. A Point 7 word substituted by [S.I. 2019/459 reg. 139\(2\)\(b\)](#)
- Annex 7 Pt. B Point 6 word substituted by [S.I. 2019/459 reg. 139\(3\)\(b\)](#)
- Annex 7 Pt. B Point 7 word substituted by [S.I. 2019/459 reg. 139\(3\)\(b\)](#)
- Annex 7 Pt. B Point 8 word substituted by [S.I. 2019/459 reg. 139\(3\)\(b\)](#)
- Annex 7 Pt. B Point 9 word substituted by [S.I. 2019/459 reg. 139\(3\)\(c\)\(i\)](#)
- Annex 7 Pt. B Point 9 word substituted by [S.I. 2019/459 reg. 139\(3\)\(c\)\(ii\)](#)
- Annex 7 Pt. B Point 5 words substituted by [S.I. 2019/459 reg. 139\(3\)\(a\)](#)
- Art. 11(1) word substituted by [S.I. 2019/459 reg. 131\(3\)\(a\)](#)
- Art. 11(1) words in Art. 11 renumbered as Art. 11(1) by [S.I. 2019/459 reg. 131\(2\)](#)
- Art. 11(1) words inserted by [S.I. 2019/459 reg. 131\(3\)\(b\)](#)
- Art. 11(1) words substituted by [S.I. 2019/459 reg. 131\(3\)\(c\)](#)
- Art. 11(2) words in Art. 11 renumbered as Art. 11(2) by [S.I. 2019/459 reg. 131\(4\)](#)