Pursuant to Article 54, paragraph 1 and Article 265 of the Air Transport Law ("Official Gazette of RS", No 73/10, 57/11, 93/12, 45/15, 66/15 – other law, 83/18, 9/20 and 62/23),

Director of the Civil Aviation Directorate of the Republic of Serbia hereby adopts

REGULATION
on data link services for the single European sky

Subject matter
Article 1

This Regulation lays down conditions referring to characteristics, method of use and maintenance of communications systems that provide data link services for the single European sky, and which are used, in general air traffic, by aircraft operators and air traffic service providers for flights operating in accordance with instrument flight rules within the airspace of the Republic of Serbia above FL 285.

Transposition
Article 2

This Regulation transposes the following:

1) Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements as regards data link services for the single European sky, amended by the following regulations:

1) Commission Implementing Regulation (EU) 2015/310 of 26 September 2015;

2) Commission Implementing Regulation (EU) 2019/1170 of 8 July 2019;

3) Commission Implementing Regulation (EU) 2020/208 of 14 February 2020;

2) Commission Implementing Regulation (EU) 2019/2012 of 29 November 2019 on exemptions based on Article 14 of Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements as regards data link services for the single European sky.

Commission Regulation (EC) No 29/2009 of paragraph 1 point 1 of this Article is given in Addendum 1, printed with this Regulation and forming an integral part thereof.

Definitions
Article 3

Terms used in this Regulation shall have the following meanings:

1) *datalink* means link for digital air-ground communication between aircraft and ground system;

2) *Eurocae* means European organisation for equipment in civil aviation, established in 1963 with an aim to develop industrial standards for aviation equipment and related systems;

3) *data link communication* means the exchange of messages via data link;

4) *Commission Regulation (EC) No 549/2004* means Commission Regulation of the European Parliament and of the Council (EC) No 549/2004 of 10 March 2004 foreseeing framework for creation of single European sky (framework Regulation). This Regulation has been implemented in the Republic of Serbia with Regulation on the conditions to be fulfilled by air navigation providers ("Official Gazette of RS", No 26/20, 154/20 and 24/21);

5) *Commission Regulation (EC) No 1032/2006* means Commission Regulation (EC) No 1032/2006 of 6 July 2006 laying down requirements for automated systems for flight data exchange for announcement, coordination and exchange of flight data ("Official Gazette RS", No 23/12);

6) *Regulation (EC) No 551/2004* means Regulation of the European Parliament and of the Council (EC) No 552/2004 of 10 March 2004 on interoperability of the European Air Traffic Management Network (Regulation on interoperability). This Regulation has been implemented in the Republic of Serbia by Regulation on transposition of EU regulations on interoperability of the European Air Traffic Management Network ("Official Gazette of RS", No 69/11);

7) *Regulation (EC) No 216/2008* of general rules in the civil aviation field and establishing European Aviation Safety Agency, repealed by adopting Regulation (EU) No 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the civil aviation and establishing European Aviation Safety Agency. Referring to Regulation (EC) No 216/2008 in Addendum to this Regulation shall be considered referring to Regulation (EU) No 2018/1139, which is implemented by Regulation on common rules in the civil aviation and establishing European Aviation Safety Agency ("Official Gazette RS", No 154/20) in the Republic of Serbia.

Terms "Member state" and "Union", used in Addendum to this Regulation, shall be construed according to points 2 and 3 of Annex II to Multilateral agreement between the European Union and its member states, Republic of Albania, Bosnia and Herzegovina, Republic of Bulgaria, Republic of Croatia, Ex Yugoslavian Republic Macedonia, Republic of Island, Republic of Montenegro, Kingdom of Norway, Romania, Republic of Serbia and Mission of interim management of the United Nations in Kosovo (according to Security Council Resolution UN 1244 of 10 June 1999) on establishing the European Common Aviation Area (ECAA agreement).

Other terms shall have the meaning specified in Article 2 of Commission Regulation (EC) No 29/2009 of Addendum 1 to this Regulation.

Application of requirements of Commission Regulation (EC) No 29/2009 to airspace of the Republic of Serbia

Article 4

Requirements of Commission Regulation (EC) No 29/2009 of Addendum 1 to this Regulation, which refer to airspace as defined in Annex I, shall also be applied to the airspace of the Republic of Serbia.

Transposition

Article 5

Air traffic service provider and aircraft operators shall be obliged to comply with the provisions of this Regulation no later than 1 September 2024.

Entry into Force

This Regulation shall enter into force on the eight day from its publication in "the Official Gazette of the Republic of Serbia".

No 5/1-01-0016/2023-0001
Belgrade, 29 September 2023

Director
Mirjana Cizmarov

Addendum 1

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

Article 1

Subject matter and scope of application

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.

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.

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 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.

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.

2. 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.

3. 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.

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 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 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.

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 Article 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 Article 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 Article 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.

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.

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 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 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 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.

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.

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.

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 Article 127(3) of Regulation (EU) 2018/1139**.**

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.

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 5 February 2018**.**

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

ANNEX I

Airspace referred to in Article 1(3)

PART A

The airspace referred to in the first paragraph of Article 1(3) shall include the airspace above FL 285 within the following Flight Information Regions (FIR) and Upper Flight Information Regions (UIR):

— Amsterdam FIR,
— Wien FIR,
— Barcelona UIR,
— Brindisi UIR,
— Brussels UIR,
— Canarias UIR,
— France UIR,
— Hannover UIR,
— Lisboa UIR,
— London UIR,
— Madrid UIR,
— Milano UIR,
— Rhein UIR,
— Roma UIR,
— Scottish UIR,
— Shannon UIR.

PART B

The airspace referred to in the second paragraph of Article 1(3) shall include the airspace above FL 285 defined in Part A and in addition, the following Flight Information Regions and Upper Flight Information Regions:

— Bratislava FIR,
— Bucuresti FIR,
— Budapest FIR,

— Kobenhavn FIR,
— Ljubljana FIR,
— Nicosia FIR,
— Praha FIR,
— Sofia FIR,
— Warszawa FIR,
— Zagreb FIR,
— Finland UIR south of 61°30′,
— Hellas UIR,
— Malta UIR,
— Riga UIR,
— Sweden UIR south of 61°30′,
— Tallinn UIR,
— Vilnius UIR.

ANNEX II

Definition of data link services referred to in Articles 3, 4, 5 and 7 and Annex IV

1. Definition of Data Link Communications Initiation Capability (DLIC)

The DLIC service shall enable the exchange of the necessary information for the establishment of data link communications between ground and aircraft data link systems.

The DLIC service shall be available to support:

- the unambiguous association of flight data from the aircraft with flight plan data used by an ATS unit,
- the exchange of the supported air–ground application type and version information,
- and the delivery of the addressing information of the entity hosting the application.

The exchanges between airborne and ground data link systems for the execution of DLIC service shall comply with:

- operating methods, time sequence diagrams and messages for the DLIC initiation and DLIC contact functions specified in Section 4.1 of the Eurocae document identified in point 11 of Annex III,
- safety requirements specified in Section 4.2.2 of the Eurocae document identified in point 11 of Annex III,
- performance requirements specified in Section 4.3.2 of the Eurocae document identified in point 11 of Annex III.

*2. **Definition of ATC Communications Management service (ACM)***

The ACM service shall provide automated assistance to flight crews and air traffic controllers for conducting the transfer of ATC communications (voice and data) comprising:

- the initial establishment of CPDLC with an ATS unit,
- the transfer of CPDLC and voice for a flight from one ATS unit to the next ATS unit, or to instruct a change of voice channel within an ATS unit or sector,
- the normal termination of CPDLC with an ATS unit.

The exchanges between airborne and ground data link systems for the execution of ACM service shall comply with:

- operating methods and time sequence diagrams specified in Sections 5.1.1.1.1 to 5.1.1.1.7 and 5.1.1.2 of the Eurocae document identified in point 11 of Annex III,

- safety requirements specified in Section 5.1.2.3 of the Eurocae document identified in point 11 of Annex III, excluding requirements relating to downstream clearance,

- performance requirements for the en route phase specified in Section 5.1.3.2 of the Eurocae document identified in point 11 of Annex III.

3. ***Definition of ATC Clearances and Information service (ACL)***

The ACL service shall provide flight crews and controllers with the ability to conduct operational exchanges comprising:

- requests and reports from flight crews to air traffic controllers,

-clearances, instructions and notifications issued by air traffic controllers to flight crews.

The exchanges between airborne and ground data link systems for the execution of ACL service shall comply with:

- operating methods and time sequence diagrams specified in Sections 5.2.1.1.1 to 5.2.1.1.4 and 5.2.1.2 of the Eurocae document identified in point 11 of Annex III,

- a common subset of the message elements specified in Section 5.2.1.1.5 of the Eurocae document identified in point 11 of Annex III as appropriate to the en route operational environment,

- safety requirements specified in Section 5.2.2.3 of the Eurocae document identified in point 11 of Annex III,

- performance requirements for the en route phase specified in Section 5.2.3.2 of the Eurocae document identified in point 11 of Annex III.

4. ***Definition of ATC Microphone Check service (AMC)***

The AMC service shall provide air traffic controllers with the capability to send an instruction to several data link equipped aircraft, at the same time, in order to instruct flight crews to verify that their voice communication equipment is not blocking a given voice channel.

This instruction shall only be issued to those aircraft tuned to the frequency that is blocked.

The exchanges between airborne and ground data link systems for the execution of AMC service shall comply with:

- operating methods and time sequence diagrams specified in Sections 5.3.1.1.1, 5.3.1.1.2 and 5.3.1.2 of the Eurocae document identified in point 11 of Annex III,

- safety requirements specified in Section 5.3.2.3 of the Eurocae document identified in point 11 of Annex III,

- performance requirements specified in Section 5.3.3.2 of the Eurocae document identified in point 11 of Annex III.

ANNEX III

1. ORO.MLR.105 of Annex III to Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations, or ICAO Annex 6 - Operation of aircraft, Part I, (International Commercial Air Transport - Aeroplanes) (11th edition, July 2018, incorporating amendment 43), or ICAO Annex 6 -Operation of aircraft, Part II (International General Aviation - Aeroplanes) (Tenth edition, July 2018, incorporating amendment 36).

2. Chapter 3 - Aeronautical Telecommunication Network, Section 3.5.1.1 ‘Context Management’ (CM) application items (a) and (b) of ICAO Annex 10 - Aeronautical Telecommunications - Volume III, Part I (Digital Data Communication Systems) (Second edition, July 2007, incorporating amendments 70-82).

3. Chapter 3 - Aeronautical Telecommunication Network, Section 3.5.2.2 ‘Controller-Pilot Data Link Communications’ (CPDLC) application items (a) and (b) of ICAO Annex 10 - Aeronautical Telecommunications - Volume III, Part I (Digital Data Communication Systems) (Second edition, July 2007, incorporating amendments 70-82).

4. Chapter 3 - Aeronautical Telecommunication Network, Sections 3.3, 3.4 and 3.6 of ICAO Annex 10 - Aeronautical Telecommunications - Volume III, Part I (Digital Data Communication Systems) (Second edition, July 2007, incorporating amendments 70-82).

5. Chapter 6 - VHF air-ground digital link (VDL) of ICAO Annex 10 — Aeronautical Telecommunications - Volume III, Part I (Digital Data Communication Systems) (Second edition, July 2007, incorporating amendment 90.

6. Chapter 3 - General procedures for the international aeronautical telecommunication service, Section 3.5.1.5 of ICAO Annex 10 - Aeronautical Telecommunications - Volume II (Communication Procedures including those with PANS status) (Seventh edition, July 2016, incorporating amendments 40-90).

7. Chapter 2 - General - Section 2.26.3 of ICAO Annex 11 - Air Traffic Services (14th edition, July 2016, incorporating amendment 50-A).

8. Chapter 6 - Air traffic services requirements for communications - Sections 6.1.1.2, of ICAO Annex 11 - Air Traffic Services (14th edition, July 2016, incorporating amendment 50-A).

9. Eurocae ED-111, Functional specifications for CNS/ATM ground recording, July 2002, including Amendment 1 (30.7.2003).

10. Eurocae ED-100 (September 2000) and ED-100A (April 2005), Interoperability requirements for ATS applications using ARINC 622 Data Communications.

11. Eurocae ED-120 Safety and Performance Requirements Standard for Air Traffic Data Link Services in Continental Airspace, published in May 2004, including:

(a) for operators:

- Change 1, published in April 2007, and Change 2, published in October 2007, or
- Change 1, published in April 2007, Change 2, published in October 2007, and Change 3, published in September 2019;

(b) for ATS providers:

- Change 1, published in April 2007, Change 2, published in October 2007, and Change 3, published in September 2019.

ANNEX IV

Requirements referred to in Articles 5, 6, 7, 8 and 9

Part A: Requirements for end-to-end communications

1. End-to-end data communications shall ensure seamless provision and use of communication services in the airspace referred to in Article 1(3).

2. End-to-end data communications shall support the exchange of messages in support of the data link services defined in Annex II, in accordance with a common standardised messages set.

3. End-to-end data communications shall support a common standardised end-to-end protection mechanism to ensure the integrity of messages received consistent with safety requirements of the data link services defined in Annex II.

Part B: Requirements for air-ground communications based on ATN and VDL Mode 2

1. Air-ground communications shall be designed to support end-to-end communications and to ensure seamless provision and use of communications services to air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III in the airspace referred to in Article 1(3).

2. Air-ground communications shall comply with safety and performance requirements of the data link services defined in Annex II.

3. Air-ground communications shall be based on a common addressing scheme.

4. The transmission and reception of data units between ground and aircraft systems hosting the air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III shall be based on communication protocols which comply with the ICAO standards defining the Aeronautical Telecommunication Network referred to in point 4 of Annex III.

5. The ground and aircraft communication system characteristics and the transmission and reception of bit frames between ground and aircraft communication systems shall comply with the ICAO standards defining the very high frequency digital link, VDL Mode 2, referred to in point 5 of Annex III.

Part C: Requirements for air-ground communications based on other communication protocols

1. Air-ground communications shall be designed to support end-to-end communications and to ensure seamless provision and use of communications services to air-ground applications defined in the ICAO standards specified in points 2 and 3 of Annex III in the airspace referred to in Article 1(3).

2. Air-ground communications shall comply with safety and performance requirements of the data link services defined in Annex II.

3. Air-ground communications shall be based on a common addressing scheme.

4. The transmission and reception of bit frames between ground and aircraft communication systems shall be based on communication protocols fulfilling the conditions set out in Part D.

Part D: Conditions referred to in Part C

1. Communication protocols must support end-to-end communications.

2. Communication protocols must be subject to a safety case to demonstrate compliance with safety and performance requirements of the data link services defined in Annex II.

3. Communication protocols must support bidirectional point-to-point communications using those parts of the radio frequency spectrum identified by ICAO as suitable for air–ground data communications in support of air traffic services.

4. Communication protocols must include a mechanism to manage mobile connectivity between ground and airborne stations in a transparent way.

5. Communication protocols must be specified and validated with respect to airworthiness regulations and operational approval regulations applicable to aircraft communication equipment.

6. Communication systems supporting these protocols must not create harmful effects on airborne and ground installations supporting VDL 2.

ANNEX V

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

1. The verification activities shall demonstrate the conformity or suitability for use of constituents implementing the data link services, end-to-end communications and air–ground communications with the applicable requirements of this Regulation whilst those constituents are in operation in the test environment.

2. The manufacturer shall manage the conformity assessment activities and shall in particular:

- determine the appropriate test environment,
- verify that the test plan describes the constituents in the test environment,
- verify that the test plan provides full coverage of applicable requirements,
- ensure the consistency and quality of the technical documentation and the test plan,
- plan the test organisation, staff, installation and configuration of test platform,
- perform the inspections and tests as specified in the test plan,
- write the report presenting the results of inspections and tests.

3. The manufacturer shall ensure that the constituents implementing data link services, end-to-end communications and air–ground communications, 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 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.

ANNEX VI

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.

ANNEX VII

Part A: Requirements for the verification of systems referred to in Article 12(1)

1. The verification of systems identified in Article 1(2) shall demonstrate the conformity of these systems with the applicable requirements of this Regulation in an assessment environment that reflects the operational context of these systems.

2. The verification of systems identified in Article 1(2) shall be conducted in accordance with appropriate and recognised testing practices.

3. Test tools used for the verification of systems identified in Article 1(2) shall have appropriate functionalities.

4. The verification of systems identified in Article 1(2) 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 1(2) in an operational and technical assessment environment,

- verify that the test plan provides full coverage of the interoperability and performance 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 1(2) operated in an operational assessment environment meet the applicable 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 B: requirements for the verification of systems referred to in Article 12(2)

1. The verification of systems identified in Article 1(2) shall demonstrate the conformity of these systems with the applicable requirements of this Regulation in an assessment environment that reflects the operational context of these systems.

2. The verification of systems identified in Article 1(2) shall be conducted in accordance with appropriate and recognised testing practices.

3. Test tools used for the verification of systems identified in Article 1(2) shall have appropriate functionalities.

4. The verification of systems identified in Article 1(2) 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 1(2) in an operational and technical assessment environment,

- verify that the test plan provides full coverage of the 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 1(2) operated in an operational assessment environment meet the applicable 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.

Addendum 2

COMMISSION IMPLEMENTING DECISION (EU) 2019/2012 of 29 November 2019 on exemptions under Article 14 of Commission Regulation (EC) No 29/2009 laying down requirements on data link services for the single European sky

Article 1

The following aircraft types/models combinations shall be permanently exempted from the requirements of Article 3(2) of Regulation (EC) No 29/2009:

(a) aircraft types/models combinations specified in Annex I;

(b) aircraft types/models combinations specified in Annex II having the first individual certificate of airworthiness issued prior to 5 February 2020.

Article 2

The following aircraft types/models combinations shall be exempted from the requirements of Article 3(2) of Regulation (EC) No 29/2009 until 5 February 2022:

(a) aircraft types/models combinations specified in Annex II having the first individual certificate of airworthiness issued on or after 5 February 2020;

(b) aircraft types/models combinations specified in Annex III.

Article 3

Decision C(2011) 2611 final and Implementing Decision C(2011) 9074 final are repealed.

Article 4

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

ANNEX I

Exemptions referred to in point (a) of Article 1

Aircraft type/series/model	Manufacturer	ICAO type designator
AN-12 all	Antonov	AN12
AN-124 100	Antonov	A124
IL-76 all	Ilyushin	IL76
A300 all	Airbus	A30B A306 A3ST
A310 all	Airbus	A310
A-319/-320/-321 with a first Certificate of Airworthiness issued between 1 January 1995 and 5 July 1999 inclusive	Airbus	A319 A320 A321
A340 all	Airbus	A342 A343 A345 A346
A318-112	Airbus	A318
AVROLINER (RJ-100)	AVRO	RJ1H
AVROLINER (RJ-85)	AVRO	RJ85
BA146-301	British Aerospace	B463
B717-200	Boeing	B712
B737-300	Boeing	B733
B737-400	Boeing	B734
B737-500	Boeing	B735
B747-400	Boeing	B744
B757-200	Boeing	B752
B757-300	Boeing	B753
B767-200	Boeing	B762
B767-300	Boeing	B763
B767-400	Boeing	B764
MD-82	Boeing	MD82
MD-83	Boeing	MD83
MD-11 all	Boeing	MD11
CL-600-2B19 (CRJ100/200/440)	Bombardier	CRJ1/CRJ2
Dornier 328-100	Dornier	D328
Dornier 328-300	Dornier	J328

Aircraft type/series/model	Manufacturer	ICAO type designator
Fokker 70	Fokker	F70
Fokker 100	Fokker	F100
King Air series (90/100/200/300)	Beechcraft	BE9L BE20 B350
Hercules L-382-G-44K-30	Lockheed	C130
SAAB 2000/SAAB SF2000	SAAB	SB20

ANNEX II

Exemptions referred to in point (b) of Article 1 and point (a) of Article 2

Aircraft Type/Series/Model	Manufacturer	ICAO type designator
A330 Series 200/300	Airbus	A332/A333
Global Express/5000 BD-700-1A10/1A11	Bombardier	GLEX/GL5T
CL-600-2C10 (CRJ-700)	Bombardier	CRJ7
C525C, CJ4	Cessna	C25C
C560XL (Citation XLS+)	Cessna	C56X
Falcon 2000 all	Dassault	F2TH
Falcon 900 all	Dassault	F900
EMB-500 (Phenom 100)	Embraer	E50P
EMB-505 (Phenom 300)	Embraer	E55P
EMB-135BJ (Legacy 600)	Embraer	E35L
EMB-135EJ (Legacy 650)	Embraer	E35L
EMB-145 (135/140/145)	Embraer	E135 E145, E45X
PC-12	Pilatus	PC12

ANNEX III

Exemptions referred to in pont (b) of Article 2

Aircraft Type/Series/Model	Manufacturer	ICAO type designator
A318 (ACJ)	Airbus	A318
A319 (ACJ)	Airbus	A319
A320 (ACJ)	Airbus	A320
A321 (ACJ)	Airbus	A321
B737-700IGW (BBJ)	Boeing	B737
B737-800 (BBJ2)	Boeing	B738
B737-900ER (BBJ3)	Boeing	B739
B767-300F	Boeing	B763
ERJ 190-100ECJ	Embraer	E190