European Union Aviation Safety Agency

Opinion No 06/2019

Amendment of Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements on data link services for the single European sky: Update of references — ED-120

RMT.0524

EXECUTIVE SUMMARY

The objective of this Opinion is to provide regulatory clarity and alignment with the latest ICAO documents and industry standards on the operational usage of Downlink Message (DM) 89 'MONITORING', while ensuring a negligible impact on data link installations that already comply with Commission Regulation (EC) No 29/2009.

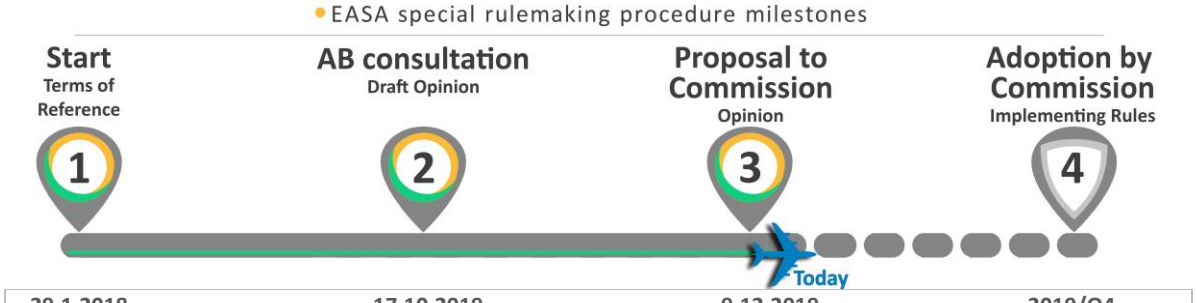
This Opinion updates the reference to EUROCAE ED-120 'Safety and Performance Requirements Standard For Initial Air Traffic Data Link Services In Continental Airspace' within Annex III to Commission Regulation (EC) No 29/2009 on data link services (DLS) to take into account the recent ED-120 Change 3. Change 3 removed the use of DM 89 'MONITORING', thus aligning the operational approaches for 'Air Traffic Data Link Services in Continental Airspace' as specified in ED-120 with those published within the latest EUROCAE B2 data link standards and the ICAO Global Operational Data Link (GOLD) Manual.

In addition to reflecting in Commission Regulation (EC) No 29/2009 the updated ED-120, including Change 1, Change 2 and Change 3, this Opinion also permits the option for the use of ED-120, including Change 1 and Change 2. However, the option is only proposed to be applicable for aircraft operators to provide flexibility, while for ATS providers this proposal ensures alignment with the recommendations stemming from various documents to remove the use of DM 89 'MONITORING'. Therefore, for ATS providers the proposal is to refer to the latest ED-120 standard, including Change 1, Change 2 and Change 3.

This Opinion has no negative impact on the existing ground and airborne data link installations that currently comply with Commission Regulation (EC) No 29/2009.

Note: For administrative purposes, this Opinion is associated to RMT.0524. However, RMT.0524 has a different rulemaking method and a separate timeline. For clarity, both timelines are shown below.

Action area:	Air traffic management (ATM); air navigation services (ANS)		
Affected rules:	Commission Regulation (EC) No 29/2009		
Affected stakeholders:	Air operators; air navigation service providers (ANSPs)		
Driver:	Efficiency/proportionality	**Rulemaking group:**	No
Impact assessment:	None	**Rulemaking Procedure:**	Direct



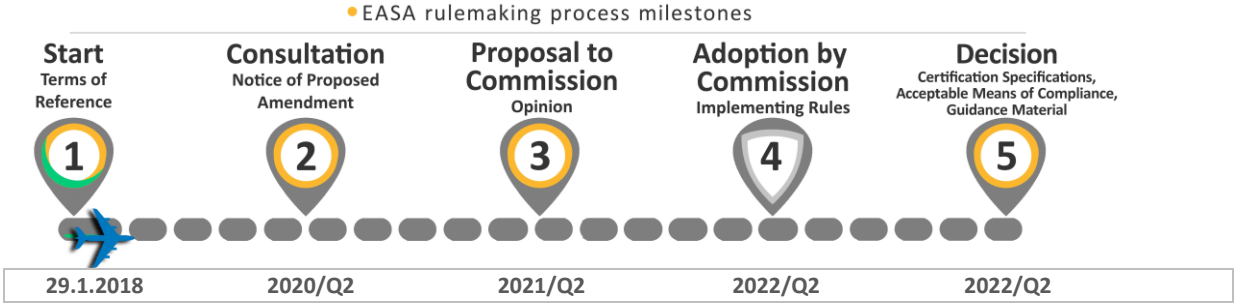


Table of contents

1. About this Opinion

1.1. How this Opinion was developed

The European Union Aviation Safety Agency (EASA) developed this Opinion in line with Regulation (EU) 2018/1139[1] (the Basic Regulation) and the Rulemaking Procedure[2].

The draft text of this Opinion has been developed by EASA. The EASA Advisory Bodies (ABs) were consulted in accordance with Article 15 'Special rulemaking procedure: direct publication'. EASA has taken the decision to follow the procedure laid down in said Article as this regulatory proposal has been assessed to have a negligible impact on the affected stakeholders' compliance with Commission Regulation (EC) No 29/2009[3] (the DLS Regulation). A summary of the comments received is provided in Section 2.4.

EASA reviewed the comments received during the AB consultation.

The *final* text of this Opinion and the draft Commission Implementing Regulation have been developed by EASA based on the input received during the AB consultation. The Opinion, including the draft rule text proposed by EASA, is published on the EASA website[4].

The major milestones of this rulemaking activity are presented on the title page.

1.2. The next steps

This Opinion contains the proposed amendment to Commission Regulation (EC) No 29/2009. It is submitted to the European Commission, which will use it as a technical basis in order to prepare an EU regulation.

---

1 Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139).

2 EASA is bound to follow a structured rulemaking process as required by Article 115(1) of Regulation (EU) 2018/1139. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the 'Rulemaking Procedure'. See MB Decision No 18-2015 of 15 December 2015 replacing Decision 01/2012 concerning the procedure to be applied by EASA for the issuing of opinions, certification specifications and guidance material (http://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-18-2015-rulemaking-procedure).

3 Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements on data link services for the single European sky (OJ L 13, 17.1.2009, p. 3) (https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1569934743080&uri=CELEX:32009R0029).

4 http://easa.europa.eu/document-library/opinions

2. In summary — why and what

2.1. Why we need to change the rules — issue/rationale

The DLS Regulation needs to capture the evolution of ICAO documents and industry standards, when appropriate. The alignment between the Aeronautical Telecommunication Network (ATN) Baseline 1 (B1) and ATN Baseline 2 (B2) data link standards on the usage of Downlink Message (DM) 89 'MONITORING' requires an amendment to the DLS Regulation to provide for operational compatibility with the evolving ED-120 standard and to provide regulatory clarity.

EUROCAE ED-120 'Safety and Performance Requirements Standard for Air Traffic Data Link Services in Continental Airspace' was recently revised by Change 3 to remove the requirement of DM 89 'MONITORING [unit name] [frequency]' to support any data link operations.

Change 3 to ED-120 on the use of DM 89 'MONITORING' is aligned with other documentation relevant to this topic (i.e. ED-228A, ICAO Doc 4444, ICAO Doc 10037 GOLD).

The assessment performed during the development of the B2 standards (i.e. EUROCAE ED-228A, Safety and Performance Requirements Standard for Baseline 2 ATS Data Communications (Baseline 2 SPR Standard)), concluded that the use of DM 89 was not an adequate mechanism to confirm that a pilot is actually monitoring a particular frequency. One of the concerns is that even if an aircraft could transmit DM 89, there is still no certainty that the pilot is monitoring the frequency transmitted, and that this method is likely to cause errors (i.e. due to the manual entry of frequency on the flight deck). Another concern raised was that pilots may forget to send DM 89, as there is no operational prompt for this action to occur. Therefore, DM 89 was removed from the operating methods of the ATC communication management (ACM) service when communication frequency transfer is used. ED-228A is a recognised global industry standard for the safety and performance requirement intended for the provision of data communications in all operational environments, e.g. continental, oceanic, and surface in support of the provision of ATC.

ICAO Doc 4444 'Procedures for Air Navigation Services — Air Traffic Management' (PANS-ATM), Sixteenth Edition, 2016, has removed DM 89 from the downlinked controller–pilot datalink communications (CPDLC) message set. Therefore, by continuing to permit the use of DM 89 renders the data link operation not aligned with PANS-ATM.

ICAO Doc 10037 'Global Operational Data Link Document (GOLD)', First Edition, 2017, recommends that DM 89 should not to be used, it is not operationally required, and it has been excluded from the B2 standard.

ETSI EN 303 214 (V1.2.1 (2012-04)) titled 'Data Link Services (DLS) System; Community Specification for application under the Single European Sky Interoperability Regulation EC 552/2004; Requirements for ground constituents and system testing' considers DM 89 'MONITORING' 'conditional' in the implementation of ground systems. While many CPDLC messages have to be supported 'unconditionally' by the ANSPs, other messages including Uplink Message (UM) 120 'MONITOR' and DM 89 'MONITORING' were considered 'conditional' and it depended on the individual implementation whether these messages were to be sent by the ATS provider and respectively used by the next ATS provider.

In a survey conducted by the SESAR Deployment Manager (SDM) in 2018–2019, European ANSPs confirmed that DM 89 'MONITORING' was not used in their operational procedures. Furthermore, the SDM recommended that 'the use of DM 89 should NOT be included in any operational procedures'.

The DLS Regulation requires aircraft operators to ensure that their affected aircraft are equipped to enable services and applications, in accordance with ED-120 (ATN B1 services). Commission Implementing Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project

supporting the implementation of the European Air Traffic Management Master Plan[5] requires equipped aircraft to downlink trajectory information using ADS-C Extended Projected Profile (EPP), which is part of the ATN B2 service definitions. At the same time, ATN B2-capable aircraft are also expected to comply with the ATN B1 requirements in accordance with the DLS Regulation. ATN B2-capable aircraft would, therefore, be required to send DM 89, although ATN B2-capable data link airborne installations are not designed to send DM 89; additionally, although optional, this message is not currently operationally used by the European ground data link implementations. Considering the above, the alignment of the operational usage of DM 89 is required to be reflected in the DLS Regulation.

The recognition in the DLS Regulation of ED-120, including Change 1, Change 2 and Change 3, allows reconciling B1 and B2 ACM services, in particular the operating methods for communication transfer. The inclusion of ED-120, including Change 1, Change 2 and Change 3, would contribute to the clarity and alignment of the requirements for the benefit of ATN B2-compliant aircraft and would facilitate their operation in accordance with the DLS Regulation. The ATN B2-capable and certified aircraft are instrumental in supporting the future 'Initial Trajectory Information Sharing' operations in accordance with Commission Implementing Regulation (EU) No 716/2014, therefore a suitable and efficient regulatory solution is required.

Based on the above, there is a need to recognise in the regulatory framework the alignment introduced by ED-120 Change 3; therefore, based on the above, the solution proposed must include an amendment to the DLS Regulation to reflect ED-120, including Change 1, Change 2 and Change 3.

2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This proposal will contribute to the achievement of the overall objectives by addressing the issues outlined in Section 2.1.

The specific objective of this proposal is to provide additional flexibility for operators in the DLS Regulation to facilitate compliance and efficient operation of ATN B2-compliant aircraft, while acknowledging the evolution of the standards with respect to the use of DM 89 'MONITORING'.

Another objective of this proposal is to have cost-efficient rules in the field of ATM/ANS, therefore to limit the impact of the change with respect to the compliance of the current airborne and ground implementations with the DLS Regulation.

Nonetheless, based on recommendations from the documents referred to in Section 2.1, and considering that according to the SDM survey DM 89 is not used in any operational procedures, ground data link implementations are proposed to use ED-120, including Change 1, Change 2 and Change 3.

2.3. How we want to achieve it — overview of the proposals

This Opinion proposes an amendment to Annex III to the DLS Regulation as follows:

In Annex III, point 11 is amended to include a reference to ED-120, including Change 1, Change 2 and Change 3. By incorporating this change, the DLS Regulation will not only reflect the latest standard and operating methods but will also provide for additional regulatory flexibility to support ATN B2-compliant aircraft.

[5] Commission Implementing Regulation (EU) No 716/2014 of 27 June 2014 on the establishment of the Pilot Common Project supporting the implementation of the European Air Traffic Management Master Plan (OJ L 190, 28.6.2014, p. 19) (https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1569936579102&uri=CELEX:32014R0716).

To capture this intent, point 11 will offer the option for operators to use either ED-120, including Change 1, Change 2 and Change 3, or ED-120, including Change 1 and Change 2.

For ATS providers, it is proposed to align to the latest revision of the ED-120 standard, i.e. ED-120, including Change 1, Change 2 and Change 3. The introduction of these options should not affect the current airborne and ground installations.

2.4. What are the stakeholders' views — outcome of the consultation

The draft Opinion was consulted with the Advisory Bodies (ABs) initially for 2 weeks. One of the stakeholders requested more time to review the draft Opinion. The request was granted, and the consultation period was extended by one more week.

7 responses were received during the consultation of the draft Opinion with the ABs: 2 comments from the industry, 3 comments from national aviation authorities, 1 comment from an operator association, and 1 comment from a European Union Agency. Overall, there were 3 comments agreeing with the proposal, 3 responses with no comments, and 1 comment requesting additional information on the operational impact.

With regard to the operational impact, one commentator requested information on the impact of DM 89 being sent. The issue highlighted was the instance where some avionics may remind the flight crew to send DM 89 once a request from the ground (e.g. Uplink Message (UM) 120 'MONITOR [unit name] [frequency subject]) has been accepted by the flight crew. This could lead flight crews operating these avionics to send DM 89, especially if they are not aware of the change in the operating method.

Nonetheless, the use of UM 120 for inter-Air Traffic Service Units (ATSU) and intra-ATSU flight transfers is considered problematic, as the assurance that voice communication is established at the initial call providing a set of information (e.g. cleared level) was required (ICAO Doc 10037 GOLD, section for European Region). Even more, since the DLS Regulation applies to flights above FL 285, which in accordance with Commission Implementing Regulation (EU) No 923/2012[6] corresponds to Class C airspace, for this type of airspace class continuous air–ground voice communications are required for all flights. As such, the use of a message which does not give the assurance that the voice communication is continuously maintained should not be considered. This should make the scenario described by the commentator not possible.

Since within the context of the DLS Regulation, ED-120, including Change 1, Change 2 and Change 3, removes DM 89 from the operational use, a request from the ground to support a flight transfer that would generate a DM 89 response should not be used.

Considering the above, and since in accordance with the SDM survey no European ATS provider is currently operationally using DM 89, it is expected that the impact of this change would be negligible.

Based on the feedback received during the AB consultation, no change to the proposed regulatory text was requested by the stakeholders.

2.5. What are the expected benefits and drawbacks of the proposals

This Opinion increases the regulatory flexibility for the benefit of aircraft operators, in particular those that operate ATN B2-compliant aircraft. By introducing the options for operators to use either ED-120, including Change 1, Change 2 and Change 3, or ED-120, including Change 1 and Change 2, this proposal

[6] Commission Implementing Regulation (EU) No 923/2012 of 26 September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation and amending Implementing Regulation (EU) No 1035/2011 and Regulations (EC) No 1265/2007, (EC) No 1794/2006, (EC) No 730/2006, (EC) No 1033/2006 and (EU) No 255/2010 (OJ L 281, 13.10.2012, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02012R0923-20171012).

accommodates both ATN B1- and ATN B2-compliant aircraft for efficient operations within the applicable airspace as defined in the DLS Regulation.

ATN B2-compliant aircraft further support the implementation of the 'Initial Trajectory Information Sharing' functionality in accordance with Commission Implementing Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project supporting the implementation of the European Air Traffic Management Master Plan.

As documented already in applicable references, the aviation community discourages the usage of DM 89. Therefore, taking account of these recommendations and considering that DM 89 is not used in any operational procedures by European ANSPs, it is proposed that ED-120, including Change 1, Change 2 and Change 3, is regarded as the standard for ground data link implementations. This proposal ensures a consistent and harmonised application of communication transfer, regardless of the aircraft design standard. This proposal has a negligible impact on the existing ground and airborne data link installations that currently comply with the DLS Regulation.

Cologne, 9 December 2019

Patrick KY

Executive Director

3. References

3.1. Affected regulations

— Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements on data link services for the single European sky (OJ L 013 17.1.2009, p. 3), as last amended and corrected by Commission Implementing Regulation (EU) 2019/1170 of 8 July 2019 (OJ L 183, 9.7.2019, p. 6)

3.2. Other reference documents

— Commission Implementing Regulation (EU) No 716/2014 of 27 June 2014 on the establishment of the Pilot Common Project supporting the implementation of the European Air Traffic Management Master Plan (OJ L 190, 28.6.2014, p. 19)

— Commission Implementing Regulation (EU) No 923/2012 of 26 September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation and amending Implementing Regulation (EU) No 1035/2011 and Regulations (EC) No 1265/2007, (EC) No 1794/2006, (EC) No 730/2006, (EC) No 1033/2006 and (EU) No 255/2010 (OJ L 281, 13.10.2012, p. 1), as last amended and corrected by Commission Implementing Regulation (EU) 2017/835 of 12 May 2017 (OJ L 124, 17.5.2017, p. 35 (BG, ES, CS, DA, DE, ET, EL, EN, FR, HR, IT, LV, LT, HU, MT, NL, PL, PT, RO, SK, FI, SV), and OJ L 124, 17.5.2017, p. 35 (SL))

— EUROCAE ED-120 Safety and Performance Requirements Standard for Air Traffic Data Link Services in Continental Airspace, published in May 2004, including Change 1, published in April 2007, and Change 2, published in October 2007, and Change 3, published in September 2019

— EUROCAE ED-228A Safety and Performance Requirements Standard for Baseline 2 ATS Data Communications (Baseline 2 SPR Standard), published in March 2016

— ICAO Doc 10037 'Global Operational Data Link Document (GOLD)', First Edition, 2017

— ETSI EN 303 214 (V1.2.1) (2012-04): 'Data Link Services (DLS) System; Community Specification for application under the Single European Sky Interoperability Regulation EC 552/2004; Requirements for ground constituents and system testing'