European Union Aviation Safety Agency

Notice of Proposed Amendment 2023-08 (D)

in accordance with Article 6 of MB Decision No 01-2022

Regular update of the air traffic management / air navigation services rules

Implementing rules, acceptable means of compliance and guidance material

RMT.0719 (SUBTASK 4B)

EXECUTIVE SUMMARY

The provision of air traffic management/air navigation services (ATM/ANS) is subject to constant evolution generated by a variety of factors, such as the introduction of new technologies and operational concepts, the acquisition of experience from the implementation and oversight of the applicable rules or the evolution of the interdependent EU and/or International Civil Aviation Organization (ICAO) regulatory frameworks. It is therefore necessary to perform regular reviews and maintenance of the currently applicable regulatory material for the provision of ATM/ANS, as regulatory consistency is a key enabler to ensure a safe and efficient aviation system.

The general objective of the amendments proposed in this Notice of Proposed Amendment (NPA) is to ensure a high and uniform level of safety in ATM/ANS and other ATM network functions and to reflect the state of the art and best practices by proposing amendments based on the selection of non-complex, non-controversial or mature subjects originating from European Commission requests, ICAO developments, stakeholders and expert groups or individuals which EASA has assessed as suitable and beneficial.

It includes proposed updates to a variety of provisions in Regulation (EU) 2017/373 and associated AMC and GM, in particular concerning air traffic services (ATS) and aeronautical information services (AIS) requirements. Consequential amendments to Regulation (EU) No 923/2012 and Regulation (EU) No 139/2014 and related AMC and GM are also proposed for consistency reasons.

NPA 2023-08 is divided in four parts. The present NPA 2023-08 (D) includes the proposed amendments to Regulation (EU) No 139/2014 and to the related AMC & GM.

REGULATIONS TO BE AMENDED	**ED DECISIONS TO BE AMENDED**
— Regulation (EU) 2017/373 (ATM/ANS) — Regulation (EU) No 923/2012 (SERA) — Regulation (EU) No 139/2014 (ADR)	— ED Decision 2017/001/R 'AMC/GM to Regulation (EU) 2017/373' — ED Decision 2013/013/R 'AMC/GM to Regulation (EU) No 923/2012' — ED Decision 2014/012/R 'AMC/GM to Regulation (EU) No 139/2014'

AFFECTED STAKEHOLDERS: ATM/ANS service providers; aerodrome operators; aircraft operators; national competent authorities (NCAs); Member States (MSs)

WORKING METHOD(S)		
Development	**Impact assessment(s)**	**Consultation**
By EASA with external support	Detailed	NPA — Public

PLANNING MILESTONES: Refer to the latest edition of the EPAS Volume II.

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1. Proposed amendments and rationale

The amendment is arranged to show deleted, new or amended, and unchanged text as follows:

— deleted text is ~~struck through~~;

— new or amended text is highlighted;

— an ellipsis '[…]' indicates that the rest of the text is unchanged.

Where necessary, the rationale is provided in *blue italics.*

1.1. Draft regulation (draft EASA opinion)

Proposed amendments to Regulation (EU) No 139/2014

Commission Regulation (EU) No 139/2014 is amended as follows:

Annex IV – PART-ADR.OPS

PART OPERATIONS REQUIREMENTS – AERODROMES

SUBPART A – AERODROME DATA (ADR.OPS.A)

[…]

ADR.OPS.A.020 Common reference systems

For the purpose of air navigation, the aerodrome operator shall use:

(a) the World Geodetic System – 1984 (WGS-84) as the horizontal reference system~~;~~ and shall determine and report geographical coordinates to the AIS provider, indicating latitude and longitude in terms of the WGS-84 geodetic reference datum;

(b) the mean sea level (MSL) datum as the vertical reference system;

(c) the Gregorian calendar and coordinated universal time (UTC) as the temporal reference systems.

[…]

Rationale:

This proposal intends to ensure consistency among the various requirements dealing with the use of horizontal reference systems and to ensure consistency with relevant ICAO provisions. The full rationale for this proposal is provided under the proposal for the amendment of ATM/ANS.OR.A.090.

SUBPART B – AERODROME OPERATIONAL SERVICES, EQUIPMENT AND INSTALLATIONS (ADR.OPS.B)

[…]

ADR.OPS.B.105 Intersection take-offs and multiple line-ups

(a) When intersection take-offs are allowed from a runway, the aerodrome operator, in cooperation with the air traffic services provider, shall ensure that:

(1) for each published intersection take-off position, the following declared distances are measured and provided to the AIS provider for publication in the AIP:

(i) the take-off run available (TORA),

(ii) the take-off distance available (TODA), and

(iii) the accelerate-stop distance available (ASDA);

(2) the datum line from which the reduced runway declared distances for take-off shall be determined is defined by the intersection of the downwind edge of the specific taxiway with the runway edge;

(3) intersections used as intermediate take-off positions are identified by the taxiway designator to which the datum line of the associated reduced runway declared distances for take-off refers;

(4) specific visibility minima are established and provided to the aeronautical information services provider for publication in the AIP; and

(5) appropriate signs are installed.

(b) When allowing more than one aircraft to line up for take-off at different points on the same runway, the aerodrome operator, in cooperation with the air traffic services provider, shall ensure that:

(1) the conditions in point (a) are met;

(2) other relevant local conditions are considered; and

(3) the runway slopes ensure minimum runway sight distance in order to enable an aircraft to identify any other preceding aircraft in the departure sequence on the same runway.

Rationale:

Intersection take-offs and multiple line-ups on the same runway are operations which have a certain risk, especially for runway incursions. However, in the ICAO EUR/NAT region, such operations have already been accepted and relevant procedures are included in ICAO Doc 7030 'Regional Supplementary Procedures' and Doc 7754 'ICAO EUR Air Navigation Plan – Volume II'. The proposed text fully aligns with ICAO provisions.

With this NPA, the Agency requests feedback from stakeholders on including a new implementing rule on intersection take-offs and multiple line-ups as shown above. The Agency would also like to know if

such operations, which already take place today, should require prior approval from the competent authority.

EASA would like to have the view of the stakeholders on whether intersection take-offs and multiple line-ups should require prior approval of the competent authority.

1.2. Draft acceptable means of compliance and guidance material (draft EASA decision)

Proposed amendments to AMC & GM to Regulation (EU) No 139/2014

AMC2 ADR.OPS.A.010 Data quality requirements

FORMAL ARRANGEMENTS

[…]

(b) Content of formal arrangements

Such formal arrangements should include the following minimum content:

(1) aeronautical data to be provided;

(2) the quality requirements for each data item supplied according to the aeronautical data catalogue;

(3) the method(s) for demonstrating that the data provided conforms with the specified requirements;

(4) the actions to be taken in the event of discovery of a data error or inconsistency in any data provided;

(5) the following minimum criteria for notification of data changes:

(i) criteria for determining the timeliness of data provision based on the operational or safety significance of the change,

(ii) any prior notice of expected changes, and

(iii) the means to be adopted for notification;

(6) the party responsible for documenting data changes;

(7) data exchange details, such as format or format change process and data exchange means/tools;

(8) any limitations on the use of data;

(9) requirements for the production of data origination quality reports;

(10) metadata to be provided; ~~and~~

(11) contingency ~~requirements~~ measures to be applied concerning the continuity of data provision; and

(12) nominated persons in each organisation for the exchange of aeronautical data.

Rationale:

This AMC is proposed to be amended, in order to ensure consistency with the equivalent AMC1 ATM/ANS.OR.A.085(f) of the ATM/ANS domain, which is also proposed to be amended.

AMC1 ADR.OPS.A.020(a) Common reference systems

HORIZONTAL REFERENCE SYSTEM

To ensure the required consistency of the determined and reported geographical coordinates, an aerodrome operator originating aeronautical data concerning a specific operating environment, such as on or in the vicinity of the aerodrome, or in other areas where the potential impact of inconsistent geographical coordinates on air navigation may be significant, should coordinate with other responsible data originators in that environment, in order to ensure the use of the same reference frame.

Rationale:

Given that the determination and reporting of geographical coordinates for the same operational environment (e.g. on and around an aerodrome) using different reference frames may lead to inconsistencies which may have an effect on air navigation, there is a need to address this case.

Therefore, a new AMC1 ATM/ANS.OR.A.090(a) is proposed to facilitate compliance in this area through the use of a common reference frame. To ensure regulatory consistency, a new AMC1 ADR.OPS.A.020(a) is proposed for the domain of aerodromes. For the full rationale of the issue, please see the rationale for the proposed amendment of ADR.OPS.A.020.

GM1 ADR.OPS.A.020(a) Common reference systems

HORIZONTAL REFERENCE SYSTEM – WGS-84

(a) A reference system provides a definition of a coordinate system in terms of the position of an origin in space, the orientation of an orthogonal set of Cartesian axes and a scale. A terrestrial reference system defines a spatial reference system in which positions of points anchored on the Earth's solid surface have coordinates. Examples are WGS-84, the ITRS / European Terrestrial Reference System (ETRS) and national reference systems.

(b) WGS-84 defines, inter alia, a conventional terrestrial reference system, a reference frame and a reference ellipsoid. WGS-84 is currently the reference system that the relevant ICAO provisions specify ~~requires~~ for georeferencing aeronautical information.

(c) Further explanation and guidance may be found in Annex B (Horizontal reference systems) to 'EUROCONTROL Specification for the Origination of Aeronautical Data'~~, Volume 2: Guidance material~~ (EUROCONTROL-SPEC-154, edition 2.0, ~~1.0~~ 16 December 2021 ~~04/02/2013~~), and ICAO Doc 9674, 'World Geodetic System – 1984 (WGS-84) Manual'.

Rationale:

The proposed update of this guidance addresses an update made to the relevant Eurocontrol document, released in December 2021. In addition, a reference is proposed to the relevant ICAO manual. A minor rewording is also suggested, as the relevant ICAO specifications are not requirements per se, although they are elements of international law.

GM2 ADR.OPS.A.020(a) Common reference systems
~~**TEMPORARY NON-COMPLIANCE OF GEOGRAPHICAL COORDINATES**~~

~~In those particular cases where geographical coordinates have been transformed into WGS-84 coordinates by mathematical means and whose accuracy of original field work does not meet the applicable requirements contained in the aeronautical data catalogue, they should be identified until the time when they can be compliant.~~

Rationale:

The guidance in question is proposed to be deleted as unnecessary and potentially confusing in relation to the relevant requirements, calling for compliance with the content of the ADC.

AMC1 ADR.OPS.A.020(b) Common reference systems

VERTICAL REFERENCE SYSTEM

(a) The aerodrome operator should use the Earth Gravitational Model – 1996 (EGM-96) as the global gravity model.

(b) At those geographical positions where the accuracy of EGM-96 does not meet the accuracy requirements for elevation and geoid undulation on the basis of EGM-96 data, regional, national or local geoid models containing high resolution (short wavelength) gravity field data should be developed and used. When a geoid model other than the EGM-96 model is used, a description of the model used, including the parameters required for height transformation between the model and EGM-96, should be provided in the aeronautical information publication (AIP).

Rationale:

Point (b) of the AMC is proposed to be amended, in order to ensure compliance with the provisions of 1.2.2.3 of ICAO Annex 15, which define the conditions for the use of geoid models other than EGM-96.

GM1 ADR.OPS.A.020(b) Common reference systems

VERTICAL REFERENCE SYSTEM

Further explanation and guidance may be found in Annex C (Vertical reference systems) to 'EUROCONTROL Specification for the Origination of Aeronautical Data'~~, Volume 2~~ (EUROCONTROL-SPEC-154, edition 2.0 ~~1.0~~ of 16 December 2021 ~~04/02/2013~~).

Rationale:

The proposed update of this guidance addresses an update made to the relevant Eurocontrol document, released in December 2021.

GM1 ADR.OPS.B.105(a)(2) Intersection take-offs and multiple line-ups

DATUM LINE FOR INTERSECTION TAKE-OFFS AND MULTIPLE LINE-UPS

(a) The loss, if any, of runway length due to lining-up of the aircraft prior to take-off is taken into account by the operators for the calculation of the aircraft's take-off weight (see also point (c)(6) in CAT.POL.A.205 in Regulation (EU) No 965/2012).

(b) A drawing of the datum line is shown in GM1 ADR.OPS.A.005.

AMC1 ADR.OPS.B.105(a)(4) Intersection take-offs and multiple line-ups

SPECIFIC VISIBILITY MINIMA FOR INTERSECTION TAKE-OFFS

The specific visibility minima established for intersection take-offs and multiple line-ups should:

(a) permit the appropriate air traffic services unit to continuously maintain a permanent surveillance of the ground movement operations, and the flight crews to constantly secure their position on the manoeuvring area, so as to exclude any potential risk of confusion as to the identification of the aircraft and intersections used for take-off;

(b) allow flight crews to identify other preceding aircraft on the same runway; and

(c) be consistent with the surface movement guidance and control system (SMGCS) provided at the aerodrome.

GM1 ADR.OPS.B.105(a)(5) Intersection take-offs and multiple line-ups

INTERSECTION TAKE-OFF SIGNS

Specifications for intersection take-off signs are included in CS ADR-DSN.N.785.

AMC1 ADR.OPS.B.105(b)(3) Intersection take-offs and multiple line-ups

LOCAL CONDITIONS

The other relevant local conditions that should be taken into consideration are at least the following:

(a) aerodrome layout (e.g. crossing runway, use of turn pads);

(b) available surveillance equipment;

(c) local weather phenomena; and

(d) jet blast / prop wash.

Rationale:

Intersection take-offs and multiple line-ups on the same runway are operations which have a certain risk, especially for runway incursions. However, in the ICAO EUR/NAT region, such operations have already been accepted and relevant procedures are included in ICAO Doc 7030 'Regional Supplementary Procedures' and Doc 7754 'ICAO EUR Air Navigation Plan – Volume II'. The proposed text fully aligns with ICAO provisions.

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