



Explanatory Note to Decisions 2016/014/R, 2016/015/R, 2016/016/R, 2016/017/R, 2016/018/R, 2016/019/R, 2016/020/R and 2016/021/R

Revision of operational approval criteria for performance-based navigation — Air operations

RELATED NPA/CRD 2013-25 — OPINION NO 03/2015 — RMT.0256 & RMT.0257 (MDM.062(A) & (B)) —

29.7.2016

EXECUTIVE SUMMARY

These Decisions, amending the acceptable means of compliance (AMC) and guidance material (GM) to the annexes to Regulation (EU) No 965/2012 (hereinafter referred to as the 'Air OPS Regulation'), address an economic issue related to performance-based navigation (PBN) operations. EASA is issuing these Decisions following the amendment of the Air OPS Regulation through Regulation (EU) 2016/1199.

The specific objectives of the rulemaking task are the:

- provision of PBN-related rules on pilot training and checking;
- removal of the requirements for specific approvals for most PBN operations;
- compliance with the fourth edition of the ICAO PBN Manual; and
- introduction of proportionate operating procedures where necessary.

The adopted changes are expected to maintain safety and provide significant economic benefits to air operators, pilots and competent authorities.

The Decisions also include clarifications on the requirements on upper torso restraint (UTR) systems, as well as new AMC and GM on the use of oxygen and on the transport of dangerous goods in the context of NCO operations.

Applicability		Process map	
Affected regulations and decisions:	AMC/GM to Annex I — Definitions and Parts ARO, ORO, CAT, SPA, NCC, NCO, and SPO of Regulation (EU) No 965/2012.	Concept paper:	No
Affected stakeholders:	Commercial and non-commercial aircraft operators, pilots.	Rulemaking group:	Yes
Driver/origin:	Level playing field	Terms of reference (Issue 2):	8.7.2013
Reference:	Annex V (Part-SPA) to Regulation (EU) No 965/2012	RIA type:	Light
		Technical consultation during NPA drafting:	No
		Publication date of the NPA:	20.12.2013
		Duration of NPA consultation:	3 months
		Review group:	Yes
		Focused consultation:	No
		Publication date of the Opinion:	31.3.2015



Table of contents

1.	Procedural information	3
1.1.	The rule development procedure.....	3
1.2.	Structure of the related documents.....	3
2.	Explanatory Note.....	4
2.1.	Overview of the issues to be addressed.....	4
2.2.	Objectives	4
2.3.	Overview of amendments to the NPA proposal concerning PBN in the Air OPS Regulation.....	4
2.3.1	GM to Annex I (Definitions).....	4
2.3.2	AMC/GM to Annex II (Part-ARO).....	4
2.3.3	AMC/GM to Annex III (Part-ORO).....	5
2.3.4	AMC/GM to Annex IV (Part-CAT).....	5
2.3.5	AMC/GM to Annex V (Part-SPA).....	6
2.3.6	AMC/GM to Annex VI (Part-NCC)	6
2.3.7	AMC/GM to Annex VII (Part-NCO).....	7
2.3.8	AMC/GM to Annex VIII (Part-SPO)	7
2.4.	Overview of amendments to the NPA proposal concerning other additional issues addressed in the Air OPS Regulation.....	7
2.4.1	Dangerous goods — AMC/GM to Part-NCO.....	7
2.4.2	UTR systems — AMC/GM to Parts CAT, NCC, NCO, and SPO.....	7
2.4.3	Oxygen — AMC/GM to Part-NCO.....	7
3.	References.....	8
3.1.	Related regulations.....	8
3.2.	Affected AMC and GM.....	8
3.3.	Reference documents.....	9



1. Procedural information

1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed in line with Regulation (EC) No 216/2008¹ (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure² the following ED Decisions: 2016/014/R, 2016/015/R, 2016/016/R, 2016/017/R, 2016/018/R, 2016/019/R, 2016/020/R and 2016/021/R.

This rulemaking activity is included in the [Agency's Rulemaking Programme](#) under RMT.0256 & RMT.0257 (MDM.062(A) & (B)). The scope and timescale of the task were defined in the related [Terms of Reference](#).

The draft text of these Decisions has been developed by the Agency based on the input of the [Rulemaking Group RMT.0256 & RMT.0257 \(MDM.062\(A\) & \(B\)\)](#). All interested parties were consulted through [Notice of Proposed Amendment \(NPA\) 2013-25](#)³. 200 unique comments were received from interested parties, including industry, national aviation authorities and social partners.

The Agency reviewed the comments received during the consultation. The comments received and the Agency's responses thereto were presented in [Comment-Response Document \(CRD\) 2013-25](#). Based on the comments received, the Agency addressed [Opinion No 03/2015](#) to the European Commission. The related EU regulation (Regulation (EU) 2016/1199⁴) was published on 22 July 2016.

The final text of these Decisions with the AMC/GM has been developed by the Agency based on the input of [Review Group RMT.0256 & RMT.0257 \(MDM.062\(A\) & \(B\)\)](#).

The process map on the title page summarises the major milestones of this rulemaking activity.

1.2. Structure of the related documents

Chapter 1 contains the procedural information related to this task. Chapter 2 explains the core technical content. Chapter 3 provides references. The text of the AMC/GM is annexed to the ED Decisions.

¹ Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1).

² The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision No 01-2012 of 13 March 2012 concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material (Rulemaking Procedure).

³ In accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

⁴ Commission Regulation (EU) 2016/1199 of 22 July 2016 amending Regulation (EU) No 965/2012 as regards operational approval of performance-based navigation, certification and oversight of data services providers and helicopter offshore operations, and correcting that Regulation (OJ L 198, 23.7.2016, p. 13).



2. Explanatory Note

2.1. Overview of the issues to be addressed

This rulemaking task addresses PBN operations. It provides new AMC/GM both for PBN operations for which an air operator needs to obtain a specific approval (SPA) and for PBN operations without a requirement for a SPA; furthermore, it consequentially amends the privileges of instrument ratings for pilots in the Aircrew Regulation.

2.2. Objectives

The overall objectives of the EASA system are defined in Article 2 of the Basic Regulation. This rulemaking task will contribute to the achievement of the overall objectives by addressing the issues outlined in Section 2.1.

The specific objectives of this rulemaking task are to:

- (a) establish safe and cost-efficient pilot training and checking requirements to remove the need for SPA for the vast majority of PBN operations;
- (b) reduce the number of cases in which an operational approval for a PBN operation is required for operators conducting commercial air transport (CAT) operations, specialised operations (SPO), non-commercial operations with complex motor-powered aircraft (NCC), and non-commercial operations with other-than-complex motor-powered aircraft;
- (c) take into account the introduction of RNP 2, Advanced-RNP and RNP 0.3 in the fourth edition of the ICAO PBN Manual; and
- (d) take the opportunity to introduce other necessary changes to the AMC/GM to the Air OPS Regulation in relation to:
 - (1) transport of dangerous goods (AMC/GM to Part-NCO);
 - (2) upper torso restraint (UTR) systems (AMC/GM to Parts CAT, NCC, NCO and SPO); and
 - (3) the use of oxygen (AMC/GM to Part-NCO).

2.3. Overview of amendments to the NPA proposal concerning PBN in the Air OPS Regulation

2.3.1 GM to Annex I (Definitions)

GM1 Annex I Definitions

The following terms have been added to the list of definitions: 'lateral navigation' and 'space-based augmentation system (SBAS)'.

GM2 Annex I Definitions

The list of abbreviations and acronyms has been updated.

2.3.2 AMC/GM to Annex II (Part-ARO)

GM2 ARO.OPS.230 Specific approval of RNP AR APCH

The proposed GM with the subtitle 'procedure-specific approval' has been deleted following comments made on the NPA proposal.



2.3.3 AMC/GM to Annex III (Part-ORO)

There have been no content changes compared to the NPA proposal.

2.3.4 AMC/GM to Annex IV (Part-CAT)

AMC1 CAT.OP.MPA.126 Performance-based navigation — PBN operations

A new AMC has been added to ensure compliance with the proposed standard in ICAO Annex 6. This AMC states that for PBN operations, the operator should:

- establish operating procedures;
- specify flight crew qualifications, proficiency constraints and training programmes; and
- ensure continued airworthiness of the area navigation system.

All following AMCs have been re-numbered.

AMC2 CAT.OP.MPA.126 Performance-based navigation — Monitoring and verifications

Based on comments received, the AMC text has been restructured and shortened. Moreover, the clarity of the text has been improved.

GM1 CAT.OP.MPA.135 Routes and areas of operation — general: RNAV 10

The text has been relocated to GM1 CAT.OP.MPA.126.

GM1 CAT.OP.MPA.182 Destination alternate aerodromes — instrument approach procedures relying on GNSS: Intent of the rule

It should be noted that the new implementing rule CAT.OP.MPA.182 has been changed compared to the NPA version. This new GM was added to describe the intent of the rule and to clarify that for the selection of the destination aerodrome or alternate destination aerodrome, planning minima requirements need to be complied with.

GM2 CAT.IDE.A.345 Communication and navigation equipment for operations under IFR or under VFR over routes not navigated by reference to visual benchmarks — Aircraft eligibility for PBN specification not requiring specific approval

This new GM points out that the aircraft eligibility for PBN specifications is usually stated in the aircraft flight manual (AFM). However, this may not always be the case since some PBN equipment and installations may have been certified prior to the publication of the PBN Manual and the adoption of its terminology for the navigation specification. Where such a reference of the PBN specification capability cannot be found in the AFM, other information provided by the type certificate (TC) holder, the supplemental type certificate (STC) holder or the design organisation having a privilege to approve minor changes may be considered to determine the capabilities of the aircraft.

This new GM lists these other documents, which can be considered, as well as various references which may be found in the AFM or other acceptable documents in order to consider the aircraft's eligibility for a specific PBN specification if the specific term is not used in the AFM.



GM2 CAT.IDE.H.345 Communication and navigation equipment for operations under IFR or under VFR over routes not navigated by reference to visual benchmarks — Aircraft eligibility for PBN specification not requiring specific approval

The same GM described above regarding aeroplanes has been repeated in the section applicable for helicopter operations.

AMC1 CAT.IDE.A.355 Electronic navigation data management — Database suitability

This AMC has been deleted. The applicable text has been changed by RMT.0593 (Technical requirements and operational procedures for the provision of data for airspace users for the purpose of air navigation) and will be published at a later stage when the rulemaking task is completed.

2.3.5 AMC/GM to Annex V (Part-SPA)**AMC1 SPA.PBN.105(b) PBN operational approval — Training and flight crew qualification for RNP AR APCH**

It should be reminded that the NPA text version of this AMC transposed the corresponding AMC20-26 material with almost no changes. Based on comments received and important contributions from the [Review Group](#) members, this AMC has been considerably modified and improved. The new training material is now consistent with the terminology of training formats used in ORO.FC as well as with the training concept of other operations requiring a specific approval, in particular SPA.LVO.

The AMC contains the following new elements:

- general provisions outlining the ground and flight training elements for flight crew members for the following three scenarios: flight crew members with no RNP AR APCH experience; with RNP AR APCH experience with another EU operator; with RNP AR APCH experience with the operator;
- provisions for conversion training;
- training for RNP AR APCH procedures requiring a procedure-specific approval; and
- training for flight operation officers/dispatchers.

AMC1 SPA.PBN.105(c) PBN operational approval — Safety assessment

Based on comments received from stakeholders and the Review Group members, this AMC has been significantly modified. It clarifies that for all RNP AR APCH procedures, the air operator has to perform a flight operational safety assessment (FOSA) in a proportionate manner, and that credits can be taken from safety assessments carried out by the air navigation service provider and/or the aerodrome operator.

AMC1 SPA.PBN.105(d) PBN operational approval — Operational considerations for RNP AR APCH

Based on comments received from stakeholders and the Review Group members, this AMC has been significantly shortened and the clarity of the text has been improved.

2.3.6 AMC/GM to Annex VI (Part-NCC)

Already the NPA proposed similar technical rules as those in Part-CAT. This approach has been accepted by stakeholders and therefore maintained. The above-described changes in Part-CAT necessitated consequential amendments in Part-NCC.



2.3.7 AMC/GM to Annex VII (Part-NCO)

Already the NPA proposed similar technical rules as those in Part-NCC. This approach has been accepted by stakeholders and therefore maintained. The above-described changes in Part-NCC necessitated consequential amendments in Part-NCO.

2.3.8 AMC/GM to Annex VIII (Part-SPO)

Already the NPA proposed similar technical rules as those in Part-NCC. This approach has been accepted by stakeholders and therefore maintained. The above-described changes in Part-NCC necessitated consequential amendments in Part-SPO.

2.4. Overview of amendments to the NPA proposal concerning other additional issues addressed in the Air OPS Regulation

2.4.1 Dangerous goods — AMC/GM to Part-NCO

Member States and stakeholders expressed growing concerns on the transport of dangerous goods by aircraft, including by non-commercial operators of other-than-complex motor-powered aircraft. Therefore, NCO.GEN.140 was amended to consider reasonable quantities of articles and substances that would otherwise be classified as dangerous goods and that are used to facilitate flight safety as authorised under paragraph 2.2.1(a) of the Technical Instructions.

A corresponding AMC and GM has been added in the Decision amending the AMC/GM to Part-NCO.

2.4.2 UTR systems — AMC/GM to Parts CAT, NCC, NCO, and SPO

Editorial changes and clarifications have been introduced following the amendment of paragraphs on UTR in all technical Parts of the Air OPS Regulation.

2.4.3 Oxygen — AMC/GM to Part-NCO

New AMC and GM on the determination of the need of oxygen and its use both during the preflight and during the in-flight phase have been introduced in the AMC/GM to Part-NCO.



3. References

3.1. Related regulations

Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012).

3.2. Affected AMC and GM

- (a) [Decision 2012/015/R](#) of the Executive Director of the Agency of 24 October 2012 on acceptable means of compliance and guidance material to Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council — ‘Guidance material to Annex I — Definitions’
- (b) [Decision 2014/025/R](#) of the Executive Director of the Agency of 28 July 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-ARO of Regulation (EU) No 965/2012 and repealing Decision 2014/014/R of the Executive Director of the Agency of 24 April 2014 — ‘AMC and GM to Part-ARO — Issue 3’
- (c) [Decision 2014/017/R](#) of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-ORO of Regulation (EU) No 965/2012 and repealing Decision 2012/017/R of the Executive Director of the Agency of 24 October 2012 — ‘AMC and GM to Part-ORO — Issue 2’
- (d) [Decision 2014/015/R](#) of the Executive Director of the Agency of 24 April 2014 adopting acceptable means of compliance and guidance material to Part-CAT of Regulation (EU) No 965/2012 and repealing Decision 2012/018/R of the Executive Director of the Agency of 24 October 2012 — ‘AMC and GM to Part-CAT — Issue 2’
- (e) [Decision 2012/019/R](#) of the Executive Director of the Agency of 24th October 2012 on acceptable means of compliance and guidance material to Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council — ‘Acceptable means of compliance and guidance material to Part-SPA’
- (f) [Decision 2013/021/R](#) of the Executive Director of the Agency of 23 August 2013 on adopting Acceptable Means of Compliance and Guidance Material for Non-commercial operations with complex motor-powered aircraft (Part-NCC)
- (g) [Decision 2014/016/R](#) of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-NCO of Regulation (EU) No 965/2012 and repealing Decision 2013/022/R of the Executive Director of the Agency of 23 August 2013 — ‘AMC and GM to Part-NCO — Issue 2’
- (h) [Decision 2014/018/R](#) of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-SPO of Regulation (EU) No 965/2012 — ‘AMC and GM to Part-SPO’



3.3. Reference documents

- (a) ICAO Doc 4444, Air Traffic Management, 15th edition, 2007 (including amendment 3)
- (b) ICAO Doc 9613, Performance-Based Navigation (PBN) Manual, 4th edition, 2013
- (c) ICAO Doc 9905, Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual, 1st edition, 2009
- (d) ICAO Doc 9997, Performance-Based Navigation (PBN) Operational Approval Manual, 1st edition, 2013
- (e) ICAO State Letter AN 11/1.1.30-15/9 issued by ICAO on 15 April 2015
- (f) ICAO Annex 6 Operation of Aircraft, 9th edition, July 2010

