

### **European Aviation Safety Agency**

### **Explanatory Note to Decision 2017/001/R**

### Common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight

#### RELATED NPAS/CRDs:

**2013-08** (RMT.0148 (ATM.001(A)) & RMT.0149 (ATM.001(B)) AND RMT.0157 (ATM.004(A)) & RMT.0158 (ATM.004(B))) $^{(1)}$ , **2014-07** (RMT.0473 & RMT.0474) (2), **2014-13** (RMT.0469 & RMT.0470) (3), AND **2014-20** (RMT.0593 & RMT.0594) (4) — RELATED OPINIONS NOS: 03/2014 AND 02/2015

#### **EXECUTIVE SUMMARY**

This Decision addresses safety, economic and regulatory coordination issues related to the providers of air traffic management (ATM)/air navigation services (ANS) and other ATM network functions as well as their oversight. It completes actions from the European Plan for Aviation Safety (EPAS) in the safety management action area (RMT.0148, RMT.0158, and RMT.0469).

This Decision proposes the necessary set of supporting acceptable means of compliance (AMC) and guidance material (GM) for the domains covered by Commission Implementing Regulation (EU) 2017/373. These AMC and GM aim to facilitate the uniform implementation of the requirements by providing suitable tools for the service providers and the competent authorities when performing oversight in ATM/ANS and other ATM network functions.

The AMC and GM have been developed concurrently with the related implementing rules. The related NPAs went through extensive public consultations, including a public workshop organised by EASA as well as focused thematic meetings. The comments received during the consultations of the various NPAs were addressed at a number of thematic meetings with the contribution of experts who participated in the drafting and of individuals and organisations who were not members of the Rulemaking Group. Following the assessment of the comments and reactions, EASA published the respective Opinions Nos 03/2014 and 02/2015, accompanied by the proposed draft Commission regulations.

Based on the said Opinions, the European Commission adopted Commission Regulation (EU) 2017/373 of 1 March 2017.

With a view to providing AMC and GM fully coherent with the text of the rule as adopted, EASA undertook the necessary adaptations. Stakeholders, who contributed to the drafting and subsequent review of that material, were consulted to ensure their agreement on the changes.

Action area: Safety management

Affected rules: AMC/GM to Regulation (EU) 2017/373

Affected stakeholders: Member States; competent authorities/national supervisory authorities; service providers; Network

Manager; and EASA.

Driver: Safety, efficiency/proportionality Rulemaking group: Yes (1) Full/(2) No/(3) Full/(4) Light Impact assessment: **Rulemaking Procedure:** Standard

EASA rulemaking process milestones

Terms of Reference

Start

Consultation **Notice of Proposed** Amendment



**Proposal to** Commission Opinion



Adoption by Commission **Implementing Rules** 



Decision Certification Specifications, Acceptable Means of Compliance, **Guidance Material** 



<sup>(1)</sup> 16.1.2014 <sup>(2)</sup> 19.6.2012 <sup>(3)</sup> 7.9.2012

<sup>(1)</sup> 10.5.2013 <sup>(2)</sup> 28.3.2014 (1), (2), (3) **12.12.2014** 

8.3.2017

8.3.2017

<sup>(4)</sup> 11.10.2013

<sup>(3)</sup> 24.6.2014 <sup>(4)</sup> 8.8.2014

<sup>(4)</sup> 12.3.2015

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#### 1. About this Decision

The European Aviation Safety Agency (EASA) developed this Decision in line with Regulation (EC) No 216/2008<sup>1</sup> (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure<sup>2</sup>.

This rulemaking activity is included in the <u>EASA Revised 2014–2017 Rulemaking Programme</u> under RMT.0148 (ATM.001(A)) & RMT.0149 (ATM.001(B)), RMT.0157 (ATM.004(A)) & RMT.0158 (ATM.004(B)), RMT.0469 & RMT.0470, RMT.0473 & RMT.0474 and RMT.0593 & 0594. The scope and timescales of these tasks were defined in the related Terms of Reference (see the title page).

The *draft* text of this Decision has been developed by EASA based on the input of the Rulemaking Groups RMT.0148 (ATM.001(A)) & RMT.0149 (ATM.001(B)), RMT.0157 (ATM.004(A)) & RMT.0158 (ATM.004(B)), RMT.0469 & RMT.0470, RMT.0473 & RMT.0474, and RMT.0593 & 0594.

This Decision results from the consultation of the following NPAs with the interested parties, including industry, national aviation authorities and social partners:

- NPA 2013-08<sup>3</sup> on 'Requirements for ATM/ANS providers and the safety oversight thereof' issued on 10 May 2013;
- NPA 2014-07<sup>4</sup> on 'Technical requirements and operational procedures for the provision of meteorological services' issued on 28 March 2014;
- NPA 2014-13<sup>5</sup> on 'Requirements for safety assessment of changes to ATM/ANS functional systems' issued on 24 June 2014; and
- NPA 2014-20<sup>6</sup> on 'Technical requirements and operational procedures for the provision of data for airspace users for the purpose of air navigation' issued on 8 August 2014.

The *final* text of this Decision with the AMC/GM has been developed by EASA based on the analysis of the comments and inputs received.

Moreover, in the context of the alignment of the draft AMC/GM with the Commission proposal that considers the changes introduced during the committee procedure, in order to ensure a timely publication of this Decision and to take informed decisions, EASA has held also various thematic meetings (on 'Human Factors provisions for ATC providers', on 'Authority requirements (AR)/Organisational requirements (OR) and assessment of changes to functional changes', 'Part-DAT', and 'Part-MET') with the participation of expert stakeholders' representatives to amend the AMC and GM, as necessary. The way forward was well received by the involved stakeholders.

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) (http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1467719701894&uri=CELEX:32008R0216).

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

https://www.easa.europa.eu/document-library/notices-of-proposed-amendments/npa-2013-08

https://www.easa.europa.eu/document-library/notices-of-proposed-amendments/npa-2014-07

https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2014-13 https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2014-20

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

### 2. In summary — why and what

### 2.1. Why we need to issue the AMC/GM

#### 2.1.1 Changes at implementing rule level

The significant change to the current legislative set-up is the amalgamation of Commission Implementing Regulations (EU) Nos 1034/2011<sup>7</sup> and 1035/2011<sup>8</sup> into one single rule. This provides for the alignment of the scope and applicability of the requirements for the service providers and the requirements for the authorities when performing their certification and oversight tasks. The Regulation is now built on the structure established by Regulation (EU) No 1035/2011, while following the structure of the IRs in other aviation domains. Following the 'cover regulation', which contains the basic principles, the scope and the applicability of the annexes thereto, and the requirements applicable to the Member States, the Regulation contains 13 annexes, each of them dedicated to a given subject. Annex I contains an extensive list of definitions of terms used in the other Annexes. Annex II (Part-ATM/ANS.AR) establishes the requirements for the competent authorities in the oversight of services and other ATM network functions, including harmonised requirements for their management system. Annex III (Part-ATM/ANS.OR) contains the common requirements to be met by a service provider subject to the Basic Regulation and the SES Regulations (Regulations (EC) Nos 549/2004<sup>9</sup>, 550/2004<sup>10</sup>, 551/2004<sup>11</sup>, and 552/2004<sup>12</sup>). Annexes IV to XII contain the specific technical requirements applicable to each of the service providers from the perspective of the organisational set-up as well as technical requirements for the provision of services. Annex XIII establishes the personnel requirements in respect of training and competence assessment, in particular of air traffic safety electronics personnel (ATSEP). This harmonised structure of aviation rules aims also at improving clarity and at facilitating their safe and uniform implementation.

The changes introduced in the technical requirements (compared to the current rules) mainly concern the issue of a limited certificate, the implementation of Article 8b(3) of the Basic Regulation by allowing a declaration (instead of certification) by flight information services (FIS) providers, the extension of the common requirements to all service providers, including the Network Manager, and the enhancement of the management system requirements for all service providers. An additional

Regulation (EC) No 552/2004 of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regulation) (OJ L 96, 31.3.2004, p. 26) (<a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173969674&uri=CELEX:32004R0552">http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173969674&uri=CELEX:32004R0552</a>).



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Commission Implementing Regulation (EU) No 1034/2011 of 17 October 2011 on safety oversight in air traffic management and air navigation services and amending Regulation (EU) No 691/2010 (OJ L 271, 18.10.2011, p. 15) (<a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173487340&uri=CELEX:32011R1034">http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173487340&uri=CELEX:32011R1034</a>).

Commission Implementing Regulation (EU) No 1035/2011 of 17 October 2011 laying down common requirements for the provision of air navigation services and amending Regulations (EC) No 482/2008 and (EU) No 691/2010 (OJ L 271, 18.10.2011, p. 23) (http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173581678&uri=CELEX:32011R1035).

Regulation (EC) No 549/2004 of the European Parliament and of the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the framework Regulation) - Statement by the Member States on military issues related to the single European sky (OJ L 96, 31.3.2004, p. 1) (http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173699323&uri=CELEX:32004R0549).

Regulation (EC) No 550/2004 of the European Parliament and of the Council of 10 March 2004 on the provision of air navigation services in the single European sky (the service provision Regulation) (OJ L 96, 31.3.2004, p. 10) (<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173824408&uri=CELEX:32004R0550">https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173824408&uri=CELEX:32004R0550</a>).

Regulation (EC) No 551/2004 of the European Parliament and of the Council of 10 March 2004 on the organisation and use of the airspace in the single European sky (the airspace Regulation) - Commission statement (OJ L 96, 31.3.2004, p. 20) (<a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173887867&uri=CELEX:32004R0551">http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1469173887867&uri=CELEX:32004R0551</a>).

change to the technical requirements compared to said Regulations is the alignment of the safety management system (SMS) requirements with those laid down in ICAO Annex 19 and the harmonisation of the set of rules related to the assessment of changes to functional systems. In addition, to implement the Essential requirements of the Basic Regulation, requirements laying down specific human factors requirements for air traffic control (ATC) service providers have been introduced.

Novelties proposed in the technical requirements compared to Regulation (EU) No 1035/2011 are the introduction of specific provision for air traffic services (ATS) providers providing services to aircraft undergoing flight tests and the specific requirements for the provision of meteorological services, namely the transposed requirements from ICAO Annex 3 'Meteorological Services for International Air Navigation'.

Furthermore, and to facilitate the implementation of the State Safety Programme (SSP), EASA is proposing through Annex II (Part-ATM/ANS.AR) the requirements for the competent authorities to oversee the regulated organisations in full alignment with the relevant ICAO Standards for the States' safety oversight systems. The core authorities' tasks defined in the IR, however, do not differ from those which the competent authorities are already performing today.

#### 2.1.2 Implementation feedback

As explained in Opinion No 03/2014, several aspects of the resulting Regulation (EU) 2017/373<sup>13</sup> are related to the implementation feedback EASA has received or observed, mainly via its standardisation visits in the domain of ATM/ANS, but also from different SES reporting mechanisms.

The overall feedback from the inspections confirms the need for a clearer regulatory framework, as well as the necessity to provide for AMC and GM with a view to assisting in the implementation of the regulatory requirements in this field within the various unique operational environments.

This Decision is aiming to complement the regulatory framework of binding rules with the necessary flexibility.

During the finalisation of the proposed AMC/GM, EASA paid special attention to those issues that were repetitively leading to inconsistencies and inaccurate application of the rules and proposed further means of compliance to facilitate the implementation.

# 2.1.3 Evolution of the proposed implementing measures to common requirements for providers of ATM/ANS and other ATM network functions and their oversight

Most of the Essential Requirements in points 5(a), (b) and (c) of Annex Vb to the Basic Regulation are implemented by the new Regulation (EU) 2017/373. However, this is only partially the case for the Essential Requirements of said Annex in point 2. In order to achieve the rest of the objectives laid down by the Essential Requirements of the Basic Regulation, said Regulation contains placeholders to

Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011 (OJ L 62, 8.3.2017, p. 1) (<a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1488964263924&uri=CELEX:32017R0373">http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1488964263924&uri=CELEX:32017R0373</a>).



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accommodate the addition of IRs which will result from separate rulemaking tasks. These tasks, included in the EASA 2017–2021 Rulemaking and Safety Promotion Programme, are as follows:

- RMT.0445 'Technical requirements and operational procedures for airspace design, including flight procedure design';
- RMT.0464 'Requirements for air traffic services'; and
- RMT.0477 'Technical requirements and operational procedures for aeronautical information services and aeronautical information management'.

The outcome of these tasks will complete the necessary regulatory framework, which also serves as the basis for the evolution of ATM/ANS services in Europe, including those stemming from the SESAR deployment.

#### 2.1.4 Introduction of AMC and GM to assist the implementation

Through this Decision, EASA is providing for the domains covered by Regulation (EU) 2017/373 the necessary AMC/GM that aim to facilitate the uniform implementation of the IR requirements.

The existence of AMC and GM will greatly facilitate the preparation of national authorities for the standardisation inspections by offering clear directions and possible means of compliance to meet the expectations.

The AMC and GM annexed to this Decision have been developed concurrently with the underlying IR. The details of and reasons for the proposed material have been thoroughly described in the Explanatory Notes of the NPAs referred to on the cover page and subsequently adjusted in the Explanatory Notes of the CRDs and Opinions related to this rulemaking activity. Therefore, this Explanatory Note focuses only on the changes performed since the last published version of the draft AMC/GM as part of the package for Opinions Nos 03/2014 and 02/2015 and CRD 2014-13.

Those changes are either initiated due to the amendments of the underlying IR level requirements during the adoption process of the rule or following stakeholder initiatives communicated to EASA.

These changes are explained in detail in Section 2.5 of this document.

#### 2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 2 of the Basic Regulation.

As regards the specific objectives, the referred rulemaking tasks aim at:

- filling the existing gaps between the Basic Regulation objectives and the existing IRs;
- aligning the SMS requirements in Regulation (EU) No 1035/2011 with the SMS requirements within the ICAO SMS framework, and facilitating the SSP implementation required by ICAO;
- ensuring an overall improvement of the ability of the competent authorities to perform their duties;
- promoting the mutual recognition of certificates;
- improving the effectiveness of the services provision; and



establishing the necessary synergies for certified service providers to perform the assessment of changes to functional systems, and for competent authorities for the oversight of these changes.

Moreover, as regards the provision of aeronautical data, this Decision aims at ensuring that the SES objectives on interoperability with respect to data are achieved.

Additionally, a specific objective is to assist Member States in fulfilling their obligations under the Chicago Convention by providing a basis for a common interpretation and uniform implementation of its requirements and by ensuring that its provisions are duly taken into account in the rules drawn up, e.g. on the provision of meteorological services.

Furthermore, these implementing measures aim at ensuring the SES initiative objectives via common enhanced standards for providers of ATM/ANS and other air traffic management network functions and their oversight.

The AMC and GM provided with this Decision facilitate the uniform implementation of the IR requirements by providing a flexible approach to the means of compliance and by assisting with the necessary level of guidance.

#### What are the stakeholders' views 2.3.

Please refer to Section 2.3 'Outcome of the consultations' of Opinion 03/2014<sup>14</sup> on 'Requirements for service providers and the oversight thereof', and Section 2.3 'Outcome of the consultation' of Opinion 02/2015<sup>15</sup> on the 'Technical requirements and operating procedures for the provision of data to airspace users for the purpose of air navigation'.

#### What are the benefits and drawbacks 2.4.

Please refer to the summaries of the RIAs of:

- NPA 2013-08<sup>16</sup> on 'Requirements for ATM/ANS providers and the safety oversight thereof';
- NPA 2014-07<sup>17</sup> on 'Technical requirements and operational procedures for the provision of meteorological services';
- NPA 2014-13<sup>18</sup> on 'Requirements for safety assessment of changes to ATM/ANS functional systems'; and
- NPA 2014-20<sup>19</sup> on 'Technical requirements and operational procedures for the provision of data for airspace users for the purpose of air navigation'.

#### 2.5. How we want to achieve it — overview of the amendments

Proposals put forward through Opinions Nos 03/2014 and 02/2015

https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2014-13 https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2014-20



<sup>&</sup>lt;sup>14</sup> https://www.easa.europa.eu/document-library/opinions/opinion-032014

https://www.easa.europa.eu/document-library/opinions/opinion-022015

https://www.easa.europa.eu/document-library/notices-of-proposed-amendments/npa-2013-08

https://www.easa.europa.eu/document-library/notices-of-proposed-amendments/npa-2014-07

The Commission proposal based on EASA Opinion No 03/2014 on 'Requirements for service providers and the oversight thereof' was tabled for discussion at the Single Sky Committee (SSC) meetings as from the end of 2014 and was the subject of the SSC Workshop in March 2015.

During the initial committee procedure of said Commission proposal, EASA issued Opinion No 02/2015 as regards 'Technical requirements and operational procedures for the provision of data for airspace users for the purpose of air navigation', on the so-called Part-DAT (including the former SES ADQ2 mandate), that amends Annex VII to said Regulation. The proposed regulatory measures would support the implementation of PBN throughout the European Union, provide for cost-effectiveness, and it would contribute to the reduction of the regulatory burden on aircraft operators and of oversight tasks at national level.

The Commission amalgamated the two EASA proposals and the rule received a positive opinion by the SSC.

Through this Decision, EASA is providing for the domains covered by Regulation (EU) 2017/373 the necessary AMC/GM that aim to facilitate the uniform implementation of the IR requirements.

#### Assessment of changes to a functional system

Based on the Member States' feedback on the draft AMC and GM during the committee procedure, it was deemed appropriate to have the most essential/necessary AMC/GM published via an EASA Decision, and the GM of a general nature (general GM/explanations/examples/other non-essential material) to be published as an EASA technical publication that is anticipated to be published after the publication of this Decision.

Furthermore, it is important to highlight that the current Regulations (EU) Nos 1034/2011 and 1035/2011 define the 'functional system' as a combination of systems, procedures and human resources organised to perform a function within the context of ATM/ANS. In the current regulatory framework, only the software aspects are covered in detail through Regulation (EC) No 482/2008<sup>20</sup>, which applies to any changes to the software of the systems for ATS, airspace management (ASM), air traffic flow management (ATFM), and communications, navigation or surveillance (CNS). This was seen as a potential safety weakness and, hence, Regulation (EU) 2017/373, being based on the framework of the existing requirements laid down in Regulation (EC) No 482/2008, sets requirements for the assessment and assurance of the changes to functional systems in a more generic manner by providing more flexibility, but also extending the scope of the assurance process to the other parts of the functional system (people, procedures and equipment) rather than to software alone. Based on the NPA 2014-13 consultation, it has been concluded that Regulation (EC) No 482/2008 can be repealed, thereby simplifying the regulatory framework and avoiding a double set of requirements. Nevertheless, it was identified that the more detailed provisions of Regulation (EC) No 482/2008 should also be moved to AMC/GM. In this context, EASA has launched the work to complete the AMC/GM published this ED Decision by addressing these aspects. Such AMC/GM indicate the characteristics/objectives of the assurance system to be applied to the software components of the functional system. Furthermore, references to the currently available standards (e.g. EUROCAE ED-109

<sup>&</sup>lt;sup>20</sup> Commission Regulation (EC) No 482/2008 of 30 May 2008 establishing a software safety assurance system to be implemented by air navigation service providers and amending Annex II to Regulation (EC) No 2096/2005 (OJ L 141, 31.5.2008, p. 5) (<a href="http://eurlex.europa.eu/legal-content/EN/TXT/?qid=1469174088833&uri=CELEX:32008R0482">http://eurlex.europa.eu/legal-content/EN/TXT/?qid=1469174088833&uri=CELEX:32008R0482</a>).



and its supplements, ED-153, ED-76A for AIS, IEC 61508, etc.) that could be used by the service providers can be provided, as part of GM, in order to satisfy the characteristics of the assurance system specified at AMC level. It is anticipated that the related NPA on software assurance level (SWAL) requirements for safety assessment of changes to ATM/ANS functional systems will be published for consultation in the course of the first half of 2016, allowing thus EASA to issue the ED Decision on the additional AMC/GM addressing these aspects well in advance of the applicability date of Regulation (EU) 2017/373, i.e. 2 January 2020.

### 2.5.1 Annex I to ED Decision 2017/001/R — GM to Annex I to Regulation (EU) 2017/373 on the definitions of terms used in Annexes II to XIII (Part-Definitions)

As already explained in Opinion No 03/2014, EASA considered beneficial to follow the same approach already applied in other IRs of the Basic Regulation (such as air operations, aircrew and aerodromes) by introducing a dedicated Annex I with all the definitions used in the rest of the annexes.

To illustrate the meaning of some definitions and to support their interpretation, GM complementing them can be found in Annex I to this ED Decision pertaining mainly to the terms used in Annexes VII (Part-DAT) and XIII (Part-PERS).

# 2.5.2 Annex II to ED Decision 2017/001/R — AMC and GM to Annex II to Regulation (EU) 2017/373 on the requirements for competent authorities — oversight of services and other ATM network functions (Part-ATM/ANS.AR)

Part-ATM/ANS.AR consists of three Subparts, namely Subpart A 'General requirements', Subpart B 'Management', and Subpart C 'Oversight, certification and enforcement'. During the NPA 2013-08 consultation, a significant number of commentators requested EASA to align as much as possible the provisions related to competent authorities with the existing ones relevant to other aviation domains unless there is a sector-specific reason for them to be different, since in most cases the competent authority for the oversight of air navigation service providers (ANSPs) is the same as for other aviation domains. Following this principle, the requirements are now grouped in alignment with the existing authority requirements relevant to other aviation domains, e.g. aircrew and air operations, aerodromes and air traffic controller licensing. They offer a balanced combination of already existing requirements in the current existing EU framework, and some new or revised requirements that aim to meet the specific safety objectives of the Basic Regulation.

The AMC and GM in Subpart A and Subpart B have been slightly 'fine-tuned' to address the changes in the IR stemming from the committee procedure such as e.g. in GM1 ATM/ANS.AR.A.005(b) 'Oversight functions', on the conclusion of an agreement.

With reference to Subpart C, the following AMC/GM were introduced:

- GM associated with ATM/ANS.AR.C.030 'Approval of change management procedures for functional system' to explain that the competent authorities reviews should focus on the change management procedures for functional systems;
- GM1 ATM/ANS.AR.C.035(b) 'Decision to review a notified change to the functional system' to address the selection criteria for reviewing a safety (support) argument;
- GM1 ATM/ANS.AR.C.010 'Oversight' as regards demonstration of compliance;

- AMC1 ATM/ANS.AR.C.015(a)(1) 'Oversight programme' as regards the area of potential safety concerns; and
- AMC1 ATM/ANS.AR.C.050(e) 'Findings, corrective actions and enforcement measures' as regards corrective action and corrective action implementation period applicable to DAT providers only.
   Said AMC and GM result from the rulemaking activity of RMT.0593 & RMT.0594.

# 2.5.3 Annex III to ED Decision 2017/001/R — AMC and GM to Annex III to Regulation (EU) No 2017/373 on the common requirements for service providers (Part-ATM/ANS.OR)

As already explained in Opinion No 03/2014, similarly to the current Annex I to Regulation (EU) No 1035/2011, Part-ATM/ANS.OR, on common requirements for all service providers, is established. New requirements are introduced in order to fulfil the Essential Requirements in point 5(a) of Annex Vb to the Basic Regulation. All provisions are structured in a harmonised manner, similar to that of the requirements applicable to other aviation domains such as aircraft operations, aerodromes and air traffic controller training organisations.

Similarly to Part-ATM/ANS.AR, the AMC and GM to Part-ATM/ANS.OR have been mainly 'fine-tuned' to address the changes in the IR stemming from the committee procedure and the outcome of the discussions at the thematic meetings with the stakeholders that took place at the end of 2015.

One of the novelties in said Subparts in response to a stakeholder's proposal was the removal of point (c) in AMC2 ATM/ANS.OR.A.040(b) on changes addressing the procedure for dealing with changes not requiring prior approval. The approach taken would provide more flexibility in the subject procedures and thus, avoid putting extra burden on the service providers and their competent authorities. This proposal would retain the current practice duly considering the maturity of the (S)MS and it would be in line with the similar provisions applicable in other aviation domains. Consequently, the proportional system as offered by ATM/ANS.OR.A.040 itself would be the contributing factor for considering if changes need prior approval or not. As a consequence, the associated GM to this AMC on key elements was removed as well.

During the rules development, it was recognised that ISO 9001/EN 9100 certificate(s) issued by an appropriately accredited organisation should be considered as a sufficient means of compliance for the service providers as regards the management system requirements. However, the Agency acknowledged that the ISO 9001/EN 9100 certificate covers the quality management elements of the management system. Therefore, additional GMs were introduced to clarify that other elements required by the Regulation in reference to the management system that are not covered by the ISO 9001/EN 9100 certificate should be subject to oversight by the competent authority.

In reference to ATM/ANS.OR.B.015 'Contracted activities', considering the extensive subject discussion during the committee procedure, AMC1 ATM/ANS.OR.B.015, point (a) has been amended to point out that the training and competences requirements for ATSEP employed by a contracted organisation should be included in a contract between the service provider and the contracted organisation that clearly defines the contracted activities and the applicable requirements among them. In this context, GM to that AMC1 ATM/ANS.OR.B.015 was introduced to address the service provider's responsibility when contracting activities.

Furthermore, during the committee procedure, EASA was requested to consider additional AMC and GM on 'contracted activities' in reference to the 'energy and air conditioning activities provided for a

radio-aid within an airport'. It should be highlighted that the 'energy and air conditioning activities' are not considered as core business of the service providers in the scope of Regulation (EU) 2017/373.

Moreover, it is important to note that, in accordance with ADR.OR.C.005 of Regulation (EU) No 139/2014, it is an aerodrome operator's responsibility to ensure directly, or coordinate through arrangements as required, with the accountable entities the provision of air navigation services appropriate to the level of traffic and the operating conditions at the aerodrome. Furthermore, CS ADR-DSN.S.875 addresses the issue of electrical power supply for the aerodrome systems, including air navigation facilities, which the aerodrome operator should demonstrate compliance with for certification purposes. In conclusion, the 'energy and air conditioning activities provided for a radio-aid within an airport' should not be considered as 'contracted activities' in the context of Regulation (EU) 2017/373, therefore, no additional AMC/GM have been introduced.

As regards the associated AMC and GM to ATM/ANS.OR.A.045 'Changes to a functional system', ATM/ANS.OR.B.010 'Change management procedures', and ATM/ANS.OR.C.005 'Safety support assessment and assurance of changes to the functional system', the amendments introduced aim at promoting clarity and ensuring consistency with Regulation (EU) 2017/373.

Subpart D sets up the specific organisational requirements for ANS and ATFM providers and the Network Manager. All the provisions in this Subpart originate from Regulation (EU) No 1035/2011 and Annex VI to Regulation (EU) No 677/2011<sup>21</sup>, including security management among others such as e.g. financial strength, liability and insurance cover, reporting requirements, etc. One of the novelties considered was the cybersecurity aspects when referring to the security management system. There are two parameters to be taken into account: the concept of information security threats, and the concept of trust. In reference to the first parameter, this ED Decision contains GM that explains what information security threat might be. The latter would result in the notion of 'trusted organisations', an aspect which, EASA believes, is sufficiently covered in the Regulation as long as the service providers have in place formal arrangements between them.

# 2.5.4 Annex IV to ED Decision 2017/001/R — AMC and GM to Annex IV to Regulation (EU) 2017/373 on specific requirements for providers of air traffic services (Part-ATS)

Considering the amendment in the SMS requirements, especially the safety risk management component and the inclusion of a process to ensure that the ATS provider's contribution to the risk of aircraft accident is minimised as far as reasonably practicable, AMC1 ATS.OR.200(1); (2); (3) (addressed to non-complex ATS providers) and AMC1 ATS.OR.200(1)(i) (addressed to complex ATS providers) have been amended to avoid inconsistency.

In response to a stakeholder's proposal, new AMC to ATS.OR.200(1)(ii);(iii) as regards organisation and accountabilities has been introduced, which transposes the ICAO related provisions.

The other updates performed were mainly references' corrections and some editorials aiming at promoting clarity and ensuring consistency with the IR, especially with regard to the AMC and GM associated with the safety assessment and assurance of changes to the functional system (ATS.OR.205), with the safety criteria (ATS.OR.210), and with the proper placement of e.g. GM

Commission Regulation (EU) No 677/2011 of 7 July 2011 laying down detailed rules for the implementation of air traffic management (ATM) network functions and amending Regulation (EU) No 691/2010 (OJ L 185, 15.7.2011, p. 1) (<a href="http://eurlex.europa.eu/legal-content/EN/TXT/?qid=1469174206571&uri=CELEX:32011R0677">http://eurlex.europa.eu/legal-content/EN/TXT/?qid=1469174206571&uri=CELEX:32011R0677</a>).



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associated with AMC on completeness of the argument. One of the necessary amendments was the one in GM1 ATS.OR.210(a) that addresses the safety criteria in terms of proxies for safety risks clarifying that a proxy is a measure of a certain property along the causal trajectory between the hazard/event and the harmful effects of the hazard/event in question.

In NPA 2014-13, GM was proposed that was associated with the safety criteria and addressing the safety of the change. After duly considering the Member States' feedback on the AMC and GM, said GM has be removed as it was considered more suitable for the pertinent technical publication, as explained above.

Section 3 'Specific human factors requirements for air traffic control service providers' of Annex IV establishes implementing measures which fulfil the Essential Requirements in point 5(b) of Annex Vb to the Basic Regulation concerning the obligation for the ATC service providers to prevent the negative effects of ATCOs' stress, fatigue and problematic use pf psychoactive substances. A set of AMC and GM associated with these implementing measures are proposed to facilitate their effective and proportionate application. These AMC and GM, developed alongside the regulatory process for the issue of the Regulation, were published for consultation with NPA 2013-08, and as informative material along with Opinion No 03/2014. They were further elaborated by EASA on the basis of the inputs received during the committee procedure with the SSC, as well as a result of the thematic consultation held with subject matter experts nominated by relevant stakeholders.

AMC1 ATS.OR.305(a) points out specific aspects of the policy for the prevention of cases of problematic use of psychoactive substances, with particular emphasis on the collaboration between the provider and the staff affected. AMC1 ATS.OR.305(b) defines the elements of the procedure for the detection of cases of problematic use of psychoactive substances. In addition, EASA proposes ICAO Doc 9654 'Manual for the prevention of problematic use of psychoactive substances in the aviation workplace' as a source of guidance for the management of the various aspects of this particular human factor issue.

In consideration of the particular nature of the subject, which is newly introduced in the EU ATM/ANS legislation, GM1 ATS.OR.310 proposes an extensive guidance on the fundamentals of stress, developed in cooperation with scientists supporting EASA in this regulatory activity. Information on critical incident stress and its management is provided in GM1 ATS.OR.310(a). In line with the SMS principles established in Section 2 of Annex IV to the Regulation, AMC1 ATS.OR.310(a) defines the elements of the stress management policy and lists the associated procedures and tools, including information and education programmes.

With GM1 ATS.OR.315, EASA proposes guidance, based on scientific principles, on the fundamentals of fatigue by referring to ICAO Doc 9966 'Manual for the Oversight of Fatigue Management Approaches'. This document has been recently revised, with the contribution of EASA, to specifically address also ATCO fatigue management. As for stress, AMC1 ATS.OR.315(a) defines the elements of the fatigue management policy, some of which are further illustrated by the associated GM. Guidance on the implementation of information programmes on fatigue prevention is also provided.

As a result of the discussions on the subject during the committee procedure, EASA proposes to better clarify the meaning of the terms 'night shift' in the context of the ATCO rostering system. The related AMC1 ATS.TR.320(a)(6); (7), developed on the basis of recognised scientific principles and discussions held in various instances with human factors experts, clarifies that such timeframe, which requires a particular consideration and protection from the fatigue management perspective, is to be intended as between midnight (00.00) and 05.59. In general, GM1 ATS.OR 320(a) proposes that the definition of the structure and the values of the elements of the rostering system adopted should be established based upon recognised scientific principles and, when available, data gathered by the provider.

ATS.TR.100(b) introduces the specific provisions for ATS provision to flight tests. During the rule development, EASA was made aware of the specific need to better clarify the responsibilities of ATS providers rendering services to such typology of flights, especially when these operate simultaneously with other flights in the same airspace. Therefore, EASA acknowledges the need to allow the use of specific and alternative conditions and operating procedures subject to approval by their competent authority. Further details and illustration of the requirements intent are provided in GM1 ATS.TR.100(b). While the service provision for flight test may vary from one Member State to another, the EASA opinion is that such a general scheme can be applied uniformly across the EU in order to support and facilitate the necessary flight testing performed by the manufacturing industry within the European airspace. In addition, EASA is progressing with RMT.0464 on 'Requirements for air traffic services' with the objective of establishing detailed technical requirements for the provision of ATS. The AMC and GM resulting from this regulatory activity, for which EASA has published its proposals with NPA 2016-09, will amend this Annex.

# 2.5.5 Annex V to ED Decision 2017/001/R — AMC and GM to Annex V to Regulation (EU) 2017/373 on specific requirements for providers of meteorological services (Part-MET)

This proposal mainly transposes the recommendations of ICAO Annex 3 Part I (Core SARPs) and Part II (Appendices and Attachments) to Subpart A (MET.OR) and Subpart B (MET.TR) respectively. The proposed AMC and GM are in line with the latest ICAO amendment 76 and already include some elements of the recently adopted amendment 77.

The AMC/GM proposals related to Part-MET have not been subject to major changes compared to the version presented in CRD 2013-08.

In November 2015, a thematic meeting, attended by most of the rulemaking group experts and additional European MET experts, was held to finalise the drafting of the subject AMC and GM.

The recommendations of ICAO Annex 3 have been transposed as AMC in the proposal, when it was considered as a means to comply with the IRs. The ICAO Notes have been transposed as GM, only when they were considered to provide clarification for the understanding of the related requirement or sometimes, the related AMC. In addition, some GM were developed by EASA in order to promote clarity.

When reviewing the AMC/GM provisions, the experts focused on clarifying and simplifying as much as possible the provisions for better understanding, and on ensuring consistency throughout the rule text. In this context, the following were undertaken during the review:

- Corrections of some terms that were wrongly used;
- Consistency between the subtitles and the text;
- References corrections;
- Technical and editorial consistency; and
- Removal of unnecessary detailed paragraphs/sentences.



With regard to the numerous templates and tables, transposed from ICAO Annex 3, the following were performed:

- The 'Template for the local routine (MET REPORT) and local special (SPECIAL) reports' has been editorially amended to ensure consistency with the IR;
- Most of the 'Tables of examples' have been editorially amended by removing the reference the
   SPECI, in order also to ensure alignment with the latest ICAO amendment (77);
- The legend for the model charts has been inserted as AMC while the model charts themselves have been included as GM.

# 2.5.6 Annexes VI, VIII, IX, X, XI, and XII to ED 2017/001/R — AMC and GM to Annexes VI, VIII, IX, X, XI, and XII to Regulation (EU) 2017/373

Annexes VI, VIII, IX, X, XI, and XII to this ED Decision are signified as 'reserved' waiting for the outcome of separate rulemaking activities.

The activity of RMT.0477 on 'Technical requirements and operational procedures for AIS/AIM' is in progress and the related NPA 2016-02<sup>22</sup> was in consultation till 30 September 2016. The proposal included in said NPA will amend Annex VI.

The activity of RMT.0445 on 'Technical requirements and operating procedures for airspace design, including flight procedure design' is in progress and the related NPA 2016-13<sup>23</sup> was published for consultation on 25 October 2016. Said consultation will expire on 31 March 2017. The proposal included in this NPA will amend Annex XI.

Annexes VIII, IX, X, and XII will be addressed through RMT.0719 on 'Regular update of ATM/ANS rules (IR/AMC/GM)' as applicable.

# 2.5.7 Annex VII to ED 2017/001/R — AMC and GM to Annex VII to Regulation (EU) 2017/373 on specific requirements for the providers of data services (Part-DAT)

The associated AMC and GM to Annex VII (Part-DAT) are mainly based on Opinion No 01/2005<sup>24</sup> and on the EASA's 'Conditions for the issuance of LoA for navigation database suppliers'. On 1 December 2015 EASA organised a thematic meeting with a focus on 'Technical requirements and operating procedures for the provision of data to airspace users for the purpose of air navigation (Part-DAT)'. The event aimed at discussing the necessary changes introduced resulting from the last subject developments.

One of the improvements was the update of the reference to EUROCAE ED-76A/RTCA DO-200B 'Standards for Processing Aeronautical Data', dated June 2015, or subsequent revisions. However, it was commonly concluded at the thematic meeting that EUROCAE ED-76/RTCA DO-200A may be also used for the demonstration of compliance with the applicable requirements.

In the context of promoting clarity and ensuring consistency, some changes have been introduced in e.g. GM1 DAT.OR.100 and GM1 to AMC1 DAT.OR.100(a). Moreover, to support the implementation of the requirements, three new GM have been developed and introduced as follows:

https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2016-13 https://www.easa.europa.eu/document-library/opinions/opinion-012005



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http://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2016-02

- GM1 DAT.OR.100(a) 'Aeronautical data and information' on validation of aeronautical data;
- GM3 to AMC1 DAT.OR.100(a) 'Aeronautical data and information' to illustrate what is considered as 'end user' in the context of this Regulation; and
- GM2 DAT.OR.105(a)(1) 'Technical and operational competence and capability' on DQR compatibility.

In NPA 2014-20, AMC addressing the database was proposed stating that the DAT provider should keep the records for a period of at least 3 years after the end of the validity period of the database unless otherwise specified by other applicable requirements. When integrating the AMC and GM into the AMC and GM to the rule on 'Common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight', it was identified that it contradicts the intention of the provision, which is clearly explained in GM1 ATM/ANS.OR.B.030 stating that the record-keeping provision is intended to address the management system records rather than operational data. As a result, this AMC has been moved to Annex VII to this ED Decision that addresses the specific requirements for the providers of data services (Part-DAT) and becomes AMC1 DAT.TR.100(a)(3).

### Annex XIII to ED 2017/001/R — AMC and GM to Annex XIII to Regulation (EU) 2017/373 on the requirements for service providers concerning personnel training and competence assessment (Part-PERS)

The AMC and GM provisions related to ATSEP training and competence assessment remain the same as presented in CRD 2013-08, except some minor editorial changes, mainly related to references. With regard to the appendices containing the training objectives, based on the ATSEP common core content, only editorial and reference amendments have been made. It should be noted that the training objectives, for both the basic and the qualification training, will need to be updated at a later stage to take into account the new technologies, including those stemming from the SESAR.

#### Annex XIV to ED Decision 2017/001/R — AMC and GM to Regulation (EU) 2017/373 2.5.9

AMC and GM complementing the provisions of Articles 1, 4, and 5 of the Regulation with regard to the compliance with the requirements and procedures can be found in Annex XIV to the ED Decision..

The new GM1 associated with Article 1 'Subject matter' was introduced as regards the scope by referring to the already established GM1 ATM/ANS.OR.A.001 based on an SSC member's proposal aiming at better illustration of the requirement.

Furthermore, to better illustrate the scope of the activities of the service providers, based on stakeholders input, the new GM1 associated with Article 2 'Definitions' was developed by highlighting that Article 3(q) of the Basic Regulation defines ATM/ANS and that 'ATM/ANS' includes more services and functions than 'air traffic management' and 'air navigation services' together. In addition, said GM1 clarifies that the term 'ATM network functions' refers to functions performed by the Network Manager in accordance with Regulation (EU) No 677/2011.

In response to stakeholders request, the IR provisions on competent authority, especially as regards the assessment of the resources needed to effectively exercise their tasks, have been amended during committee procedure to provide more flexibility on the regularity (i.e. frequency) for performing said assessment. In this context, the associated AMC is introduced, which actually transposes the current

requirements laid down in Regulation (EU) No 1034/2011, Article 12(2) and relegates it to a 'soft' law as AMC1 Article 4(8).

Again, in the context of services provision, after an extensive discussion during the committee procedure on the provision of ATFM and/or ASM, it was considered beneficial GM on that subject to be included for better understanding.

During the committee procedure, one of the most discussed topics was the entry into force of this Regulation. In response to industry request, the subject article has been amended to allow DAT providers, on a voluntary basis, to apply for, and be granted, the relevant certificates immediately upon the entry into force of this Regulation. This will allow them, as entities that are not subject to Regulation (EU) No 1035/2011, but that are subject to the practice of issuing a voluntary Letter of Acceptance (LoA) by EASA, to benefit from an early application of this Regulation in this regard and from the mutual recognition of these certificates, i.e. the certification of the DAT provider and the Federal Aviation Administration (FAA) Letter of Acceptance (LoA) attestation. To support the better understanding of the transitional arrangements, the GM on this subject has been introduced.

### 3. References

#### 3.1. Related regulations

- 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).
- Commission Regulation (EC) No 482/2008 of 30 May 2008 establishing a software safety assurance system to be implemented by air navigation service providers and amending Annex II to Regulation (EC) No 2096/2005 (OJ L 141, 31.5.2008, p. 5).
- Commission Regulation (EU) No 677/2011 of 7 July 2011 laying down detailed rules for the implementation of air traffic management (ATM) network functions and amending Regulation (EU) No 691/2010 (OJ L 185, 15.07.2011, p.1).
- Commission Implementing Regulation (EU) No 1034/2011 of 17 October 2011 on safety oversight in air traffic management and air navigation services and amending Regulation (EU) No 691/2010 (OJ L 271, 18.10.2011, p.15).
- Commission Implementing Regulation (EU) No 1035/2011 of 17 October 2011 laying down common requirements for the provision of air navigation services and amending Regulations (EC) No 482/2008 and (EU) No 691/2010 (OJ L 271, 18.10.2011, p. 23).
- Regulation (EC) No 549/2004 of the European Parliament and of the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the framework Regulation) Statement by the Member States on military issues related to the single European sky (OJ L 96, 31.3.2004, p. 1).
- Regulation (EC) No 550/2004 of the European Parliament and of the Council of 10 March 2004 on the provision of air navigation services in the single European sky (the service provision Regulation) (OJ L 96, 31.3.2004, p. 10).
- Regulation (EC) No 551/2004 of the European Parliament and of the Council of 10 March 2004 on the organisation and use of the airspace in the single European sky (the airspace Regulation) Commission statement (OJ L 96, 31.3.2004, p. 20).
- Regulation (EC) No 552/2004 of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regulation) (OJ L 96, 31.3.2004, p. 26).
- Commission Implementing Regulation (EU) 2016/1377 of 4 August 2016 laying down common requirements for service providers and the oversight in air traffic management/air navigation services and other air traffic management network functions, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011 and (EU) No 1035/2011 and amending Regulation (EU) No 677/2011 (OJ L 226, 19.8.2016, p. 1).
- Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008,

Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011 (OJ L 62, 8.3.2017, p. 1).

#### 3.2. Affected decisions

N/A

#### 3.3. Other reference documents

- NPA 2013-08 'Requirements for ATM/ANS providers and the safety oversight thereof'
- CRD 2013-08 'Requirements for ATM/ANS providers and the safety oversight thereof'
- NPA 2014-07 'Technical requirements and operational procedures for the provision of meteorological services'
- CRD 2014-07 'Technical requirements and operational procedures for the provision of meteorological services'
- NPA 2014-13 'Assessment of changes to functional systems by service providers in ATM/ANS and the oversight of these changes by competent authorities'
- CRD 2014-13 'Assessment of changes to functional systems by service providers in ATM/ANS and the oversight of these changes by competent authorities'
- NPA 2014-20 'Technical requirements and operational procedures for the provision of data for airspace users for the purpose of air navigation'
- CRD 2014-20 'Technical requirements and operational procedures for the provision of data for airspace users for the purpose of air navigation'
- NPA 2016-02 'Technical requirements and operational procedures for aeronautical information services and aeronautical information management'
- NPA 2016-09 'Requirements for air traffic services'
- NPA 2016-13 'Technical requirements and operating procedures for airspace design, including flight procedure design'
- Opinion 03/2014 'Requirements for service providers and the oversight thereof'
- Opinion 02/2015 'Technical requirements and operating procedures for the provision of data to airspace users for the purpose of air navigation'
- Opinion No 01/2005 on the 'acceptance of Navigation Database Suppliers'
- Opinion No 1/2008 'Extension of the EASA system to the regulation of Air Traffic Management and Air Navigation Services (ATM/ANS)'
- Annex 3 to the Convention on International Civil Aviation (Chicago Convention)
- Annex 19 to the Convention on International Civil Aviation (Chicago Convention)
- EUROCAE ED-76A Standards for Processing Aeronautical Data, dated June 2015
- FAA AC 20-153B Acceptance of Aeronautical Data Processes and Associated Databases.

- EUROCONTROL Specification for Air Traffic Safety Electronics Personnel Common Core Content Initial Training – Edition 1.0 – Edition date: 27/08/2009.
- EUROCONTROL Guidelines for the Competence Assessment of Air Traffic Safety Electronics Personnel – Edition 1.0 – Edition date:27/08/2009.
- ICAO Doc 9654 'Manual for the prevention of problematic use of psychoactive substances in the aviation workplace'
- ICAO Doc 9966 'Manual for the Oversight of Fatigue Management Approaches'