

# **Acceptable Means of Compliance (AMC)**

**and**

# **Guidance Material (GM)**

**to Part-ATM/ANS.AR**

# **Requirements for competent authorities — oversight of services and other ATM network functions**

Initial Issue

8 March 2017<sup>1</sup>

---

<sup>1</sup> For the date of entry into force of this issue, kindly refer to Decision 2017/001/R in the [Official Publication](#) of the Agency.

## Table of contents

SUBPART A — GENERAL REQUIREMENTS (ATM/ANS.AR.A) .....	4
AMC1 ATM/ANS.AR.A.005(b) Certification, oversight and enforcement tasks.....	4
GM1 ATM/ANS.AR.A.005(b) Certification, oversight and enforcement tasks.....	4
GM2 ATM/ANS.AR.A.005(b) Certification, oversight and enforcement tasks.....	4
GM1 ATM/ANS.AR.A.005(c) Certification, oversight and enforcement tasks .....	4
GM1 ATM/ANS.AR.A.015 Means of compliance .....	5
AMC1 ATM/ANS.AR.A.015(d)(3) Means of compliance .....	5
GM1 ATM/ANS.AR.A.020(b) Information to the Agency.....	5
GM2 ATM/ANS.AR.A.020(b) Information to the Agency.....	5
GM3 ATM/ANS.AR.A.020(b) Information to the Agency.....	6
GM4 ATM/ANS.AR.A.020(b) Information to the Agency.....	6
GM1 ATM/ANS.AR.A.030 Safety directives .....	6
GM2 ATM/ANS.AR.A.030(b) Safety directives.....	7
GM3 ATM/ANS.AR.A.030(c) Safety directives .....	8
SUBPART B — MANAGEMENT (ATM/ANS.AR.B) .....	8
AMC1 ATM/ANS.AR.B.001(a)(2) Management system .....	8
AMC2 ATM/ANS.AR.B.001(a)(2) Management system .....	8
GM1 ATM/ANS.AR.B.001(a)(2) Management system .....	9
AMC1 ATM/ANS.AR.B.001(a)(4) Management system .....	11
AMC1 ATM/ANS.AR.B.005 Allocation of tasks to qualified entities .....	11
AMC1 ATM/ANS.AR.B.015(a)(2) Record-keeping.....	12
AMC1 ATM/ANS.AR.B.015(a)(8) Record-keeping.....	12
SUBPART C — OVERSIGHT, CERTIFICATION AND ENFORCEMENT (ATM/ANS.AR.C) .....	12
AMC1 ATM/ANS.AR.C.010(a) Oversight .....	12
GM1 ATM/ANS.AR.C.010(b)(1) Oversight.....	12
GM2 ATM/ANS.AR.C.010 Oversight.....	12
AMC1 ATM/ANS.AR.C.015 Oversight programme.....	13
AMC1 ATM/ANS.AR.C.015(a) Oversight programme .....	13
AMC1 ATM/ANS.AR.C.015(a)(1) Oversight programme.....	14
GM1 ATM/ANS.AR.C.020 Issue of certificates .....	14
GM2 ATM/ANS.AR.C.020 Issue of certificates .....	14
AMC1 ATM/ANS.AR.C.025(b) Changes.....	15
AMC2 ATM/ANS.AR.C.025(b) Changes.....	15
GM1 ATM/ANS.AR.C.025(b) Changes.....	15

GM2 ATM/ANS.AR.C.025(b) Changes ..... 16

AMC1 ATM/ANS.AR.C.025(c) Changes..... 16

GM1 ATM/ANS.AR.C.030 Approval of change management procedures for functional systems ..... 16

AMC1 ATM/ANS.AR.C.030(a) Approval of change management procedures for functional systems ..... 16

AMC1 ATM/ANS.AR.C.030(b) Approval of change management procedures for functional systems..... 16

GM1 ATM/ANS.AR.C.030(b) Approval of change management procedures for functional systems..... 17

AMC1 ATM/ANS.AR.C.035(a) Decision to review a notified change to the functional system ..... 17

GM1 ATM/ANS.AR.C.035(b) Decision to review a notified change to the functional system..... 17

GM1 ATM/ANS.AR.C.035(c) Decision to review a notified change to the functional system ..... 18

GM1 ATM/ANS.AR.C.050 Findings, corrective actions, and enforcement measures..... 19

GM2 ATM/ANS.AR.C.050 Findings, corrective actions, and enforcement measures..... 20

AMC1 ATM/ANS.AR.C.050(e) Findings, corrective actions, and enforcement measures ..... 20

GM1 ATM/ANS.AR.C.050(e) Findings, corrective actions, and enforcement measures ..... 20

GM1 ATM/ANS.AR.C.050(f) Findings, corrective actions, and enforcement measures ..... 20

## **SUBPART A — GENERAL REQUIREMENTS (ATM/ANS.AR.A)**

### **AMC1 ATM/ANS.AR.A.005(b) Certification, oversight and enforcement tasks**

#### REVIEW OF THE AGREEMENT

The agreement on the supervision in a functional airspace block (FAB) or in cases of cross-border provision should include the frequency of the review.

### **GM1 ATM/ANS.AR.A.005(b) Certification, oversight and enforcement tasks**

#### CONCLUSION OF AN AGREEMENT

The agreement on the supervision in a FAB or in cases of cross-border provision may be concluded among:

- (a) the competent authorities nominated or established under agreements concluded among Member States in accordance with Article 2(3) of Regulation (EC) No 550/2004; or
- (b) the competent authorities of the service providers in cases of cross-border provision.

### **GM2 ATM/ANS.AR.A.005(b) Certification, oversight and enforcement tasks**

#### REVIEW OF THE AGREEMENT

During the review of the agreement, the competent authorities should address the practical implementation considering the results of the assessment performed in accordance with ATM/ANS.AR.C.001.

### **GM1 ATM/ANS.AR.A.005(c) Certification, oversight and enforcement tasks**

#### COORDINATION ARRANGEMENTS BETWEEN COMPETENT AUTHORITIES FOR SELECTION AND REVIEW OF MULTI-ACTOR CHANGES

- (a) When the notification of a change to a service provider's functional system indicates, as per AMC1 ATM/ANS.OR.045(a), that the change will affect the services provided by other service providers either directly or by affecting the context in which these services are delivered, these other service providers and the notifying service provider are participating in a multi-actor change. Some or all of these other service providers may also notify their competent authorities because they either have to make a reactive change or they are participating in a cooperative change to their functional systems.
- (b) If there are service providers participating in the multi-actor change who are proposing to make changes to their functional systems and are under the oversight of more than one competent authority, then the decision to review and the review itself of safety assessments and safety support assessments has to be a coordinated activity involving all the competent authorities that oversee the service providers participating in the multi-actor change.
- (c) Normally, competent authorities act independently when making decisions on how to select and review safety assessments, but in the case of multi-actor changes that cross State boundaries, the only way to ensure the effective selection and review of the notified changes is through coordination with other competent authorities. Coordination arrangements, which are difficult to define in advance, are to be established when the need arises. The objective of these agreements should be to ensure that the overall change is safe, i.e. the overall safety case is based on a complete and correct set of assumptions and mitigations and the associated risk assessments are valid.
- (d) The arrangements should ensure that:

- (1) the competent authorities involved evaluate in a harmonised way the risk posed by the change, and as a consequence there is an agreement on what safety (support) assessments will be reviewed by each competent authority; and
  - (2) individual reviews of safety (support) assessments assure the necessary conditions are met, i.e. common assumptions and common mitigations are used correctly in each safety (support) assessment and the identified risks are valid.
- (e) However, the assurance that the set of common assumptions and common mitigations are complete and correct cannot be provided in each individual safety case. The argument for that assurance has to be made in an overall safety case and reviewed collectively by the competent authorities involved in the overall change. The form of this collective review should be included in the coordination agreement.

#### **GM1 ATM/ANS.AR.A.015 Means of compliance**

##### GENERAL

Alternative means of compliance used by a competent authority or by organisations under its oversight may be used by other competent authorities or service providers only if processed again in accordance with ATM/ANS.AR.A.015(d) and (e).

#### **AMC1 ATM/ANS.AR.A.015(d)(3) Means of compliance**

##### GENERAL

The information to be provided to other Member States following approval of an alternative means of compliance (AltMoC) should contain a reference to the acceptable means of compliance (AMC) to which such means of compliance provides an alternative, where such AMC exists, as well as a reference to the corresponding implementing rule (IR), indicating, as applicable, the point(s) covered by the AltMoC.

#### **GM1 ATM/ANS.AR.A.020(b) Information to the Agency**

##### MEANING OF SAFETY-SIGNIFICANT INFORMATION STEMMING FROM OCCURRENCE REPORTS

The following should be considered safety-significant information stemming from occurrence reports:

- (a) Conclusive safety analyses that summarise individual occurrence data and provide an in-depth assessment of the safety issue. These safety analyses can be used for Agency regulatory activities or for safety promotion activities such as the European Plan for Aviation Safety; and
- (b) Individual occurrence data where the Agency is the competent authority.

#### **GM2 ATM/ANS.AR.A.020(b) Information to the Agency**

##### RECOMMENDED CONTENT FOR CONCLUSIVE SAFETY ANALYSES

- (a) The following content should be provided in conclusive safety analyses:
  - (1) a detailed description of the safety issue, containing the scenario in which the safety issue takes place; and
  - (2) an indication of the users affected by the safety issue, including types of services and organisations.
- (b) The content of such safety analyses may additionally include, as appropriate, the following:
  - (1) a risk assessment quantifying the severity and frequency of the safety issue;

- (2) information about the existing safety barriers that the aviation system has in place to prevent the safety issue from releasing its likely consequences;
- (3) any mitigating actions already being in place or developed to deal with the safety issue;
- (4) recommendations for future actions to mitigate the reported safety issue; and
- (5) any other element the competent authority understands as essential in order for the Agency to properly assess the safety issue.

**GM3 ATM/ANS.AR.A.020(b) Information to the Agency**

**REPORTING CRITERIA FOR SAFETY-SIGNIFICANT INFORMATION STEMMING FROM OCCURRENCE REPORTS WHERE THE AGENCY IS THE COMPETENT AUTHORITY**

In the case of occurrences related to organisations certified by the Agency, safety-significant information stemming from occurrence reports should be notified to the Agency if:

- (a) the occurrence is defined as a reportable occurrence for organisations certified as Pan-European service providers and service providers in the airspace of the territory to which the Treaty applies and having their principal place of operation or, if any, their registered office located outside the territory subject to the provisions of the Treaty; and
- (b) the competent authority has come to the conclusion that:
  - (1) the organisation certified by the Agency to which the occurrence relates, has not been informed of the occurrence; or
  - (2) the occurrence has not been properly addressed or has been left unattended by the organisation certified by the Agency.

Such occurrence data should be reported in a format compatible with the European Coordination Centre for Accident and Incident Reporting Systems (ECCAIRS) and should provide all relevant information for its assessment and analysis, including necessary additional files in the form of attachments.

**GM4 ATM/ANS.AR.A.020(b) Information to the Agency**

**EXCHANGE OF SAFETY-SIGNIFICANT INFORMATION WITH THE AGENCY**

A coordinator should be appointed by each competent authority, as appropriate, to exchange information regarding safety-significant information between the authority reporting the occurrence and the Agency.

**GM1 ATM/ANS.AR.A.030 Safety directives**

**GENERAL**

- (a) The safety directive is a document issued by the competent authority, mandating actions to be performed by one or more service providers, when evidence shows that aviation safety may otherwise be compromised. Thus, the competent authority is responsible for the determination of the actions required and their rationale.
- (b) The competent authority is required to perform a verification of compliance of the service providers with the safety directives in accordance with ATM/ANS.AR.A.030(d). In this respect, ATM/ANS.AR.C.005(a)(6) requires the competent authority to establish a process to verify the implementation of safety directives by the service providers. The actions that need to be taken depend on the content of the safety directive and the nature of the unsafe condition.

**GM2 ATM/ANS.AR.A.030(b) Safety directives**

## CONTENT

[Name of the competent authority]	SAFETY DIRECTIVE	
[Logo of the competent authority]	SD No/ ISSUE No:[...]  Date: dd Month YYYY	
This Safety Directive is issued in accordance with Commission Implementing Regulation (EU) 2017/373		
[Name of the service provider(s)]	[Identification of the affected functional system]	
Safety Directive Title	[Title]	
Unsafe condition identified:	[Describe the unsafe condition that is the reason for the issuance of the SD]	
Required action(s), their rationale and compliance time(s):	[Describe the required action(s) and their rationale; indicate the compliance time(s) within which the action(s) should be accomplished]	
Date of entry into force of SD:	dd Month YYYY	
Distributed to:	(a) [service provider(s) address: Post code, City Country Email address:...]  (b) [competent authorities concerned]  (c) [European Aviation Safety Agency]	
Remarks:		

**GM3 ATM/ANS.AR.A.030(c) Safety directives**

**FORWARDING OF SAFETY DIRECTIVES**

For instance, a safety directive that should be forwarded to the Agency under ATM/ANS.AR.A.030 could be a case:

- (a) where the competent authority has determined that there is an immediate need to take certain actions in order to respond to a safety recommendation; or
- (b) following an accident or serious incident; or
- (c) when this or a similar unsafe condition may be present in other service providers of the same Member State.

**SUBPART B — MANAGEMENT (ATM/ANS.AR.B)**

**AMC1 ATM/ANS.AR.B.001(a)(2) Management system**

**QUALIFIED PERSONNEL**

The competent authority should:

- (a) define and document the education, training, technical and operational knowledge, experience and qualifications relevant to the duties of each position involved in oversight activities within their structure;
- (b) ensure specific training for those involved in oversight activities within their structure; and
- (c) ensure that personnel designated to conduct safety regulatory audits, including auditing personnel from qualified entities, meet specific qualification criteria defined by the competent authority. The criteria should address:
  - (1) the knowledge and understanding of the requirements related to the services provision in ATM/ANS and other ATM network functions against which safety regulatory audits may be performed;
  - (2) the use of assessment techniques;
  - (3) the skills required for managing an audit; and
  - (4) the demonstration of competence of auditors through evaluation or other acceptable means.

**AMC2 ATM/ANS.AR.B.001(a)(2) Management system**

**TRAINING PROGRAMME AND RECURRENT TRAINING**

- (a) The competent authority should establish a training programme for its personnel, including its inspectors for the oversight of services provision in ATM/ANS and other ATM network functions, and a plan for its implementation. The training programme should include, as appropriate to the role, current knowledge, experience and skills of the personnel, at least the following:
  - (1) organisation and structure of the aviation legislation;



- (2) the Chicago Convention, relevant ICAO annexes and documents, the applicable requirements of Regulation (EC) No 216/2008<sup>2</sup>, its IRs, as well as Regulations (EC) Nos 549/2004<sup>3</sup>, 550/2004<sup>4</sup>, 551/2004<sup>5</sup>, and 552/2004<sup>6</sup> and their IRs and related acceptable means of compliance (AMC), certification specifications (CSs) and guidance material (GM), as well as assessment methodology of the alternative means of compliance and the applicable national legislation;
  - (3) the applicable requirements and procedures; and
  - (4) areas of particular interest.
- (b) The training programme and the training plan should be updated, as needed, to reflect at least changes in aviation legislation and industry. The training programme should also cover specific needs of the personnel and the competent authority.
- (c) The competent authority should ensure that its personnel, including its inspectors for the oversight of services provision in ATM/ANS and other ATM network functions, undergo recurrent training at regular intervals as defined by the competent authority or whenever deemed necessary in order to keep being up to date.

#### **GM1 ATM/ANS.AR.B.001(a)(2) Management system**

##### **SUFFICIENT PERSONNEL**

- (a) This guidance material for the determination of the required personnel is limited to the performance of certification and oversight tasks, excluding personnel required to perform tasks subject to any national regulatory requirements.
- (b) The elements to be considered when determining required personnel and planning their availability may be divided into quantitative and qualitative:
- (1) Quantitative elements:
    - (i) number of initial certificates to be issued;
    - (ii) number of service providers certified by the competent authority; and
    - (iii) number of flight information services providers having declared their activity to the competent authority.
  - (2) Qualitative elements:
    - (i) size, nature, and complexity of activities of service providers (cf. AMC1 ATM/ANS.OR.B.005(e));

---

<sup>2</sup> Regulation (EC) No 216/2008 of the European Parliament and 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).

<sup>3</sup> 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).

<sup>4</sup> 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).

<sup>5</sup> 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).

<sup>6</sup> 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).

- (ii) results of past oversight activities, including audits, inspections and reviews, in terms of risks and regulatory compliance:
    - (A) number and level of findings; and
    - (B) implementation of corrective actions; and
  - (iii) size of the Member State's aviation industry and potential growth of activities in the field of civil aviation, which may be an indication of the number of new applications and changes to existing certificates to be expected.
- (c) Based on existing data from previous oversight planning cycles and taking into account the situation within the Member State's aviation industry, the competent authority may estimate:
- (1) the standard working time required for processing applications for new certificates;
  - (2) the standard working time required for processing declarations;
  - (3) the number of new declarations or changed declarations;
  - (4) the number of new certificates to be issued for each planning period; and
  - (5) the number of changes to existing certificates and changes to functional systems to be processed for each planning period.
- (d) In line with the competent authority's oversight policy, the following planning data should be determined specifically for each service provider, certified or declared, as well as for the Network Manager:
- (1) standard number of audits/inspections to be performed per oversight planning cycle;
  - (2) standard duration of each audit/inspection;
  - (3) standard working time for audit/inspection preparation, on-site audit/inspection, reporting and follow-up per inspector for the oversight of services provision and other ATM network functions; and
  - (4) minimum number and required qualification of inspectors for the oversight of services provision and other ATM network functions for each audit/inspection.
- (e) Standard working time could be expressed either in working hours or in working days per inspector for the oversight of services provision and other ATM network functions. All planning calculations should then be based on the same unit (hours or working days).
- (f) For each service provider, the number of working hours/days per planning period for each qualified inspector for the oversight of services provision and other ATM network functions that may be allocated for certification, oversight and enforcement activities should be determined taking into account:
- (1) purely administrative tasks not directly related to oversight and certification;
  - (2) training;
  - (3) participation in other projects;
  - (4) planned absence; and
  - (5) the need to include a reserve for unplanned tasks or unforeseeable events.
- (g) The determination of working time available for certification, oversight and enforcement activities should also take into account the possible use of third parties.

**AMC1 ATM/ANS.AR.B.001(a)(4) Management system**

## COMPLIANCE MONITORING PROCESS

The formal process to monitor the compliance of the management system with the relevant requirements, and the adequacy of the procedures should:

- (a) include a feedback system of audit findings to ensure implementation of corrective actions as necessary; and
- (b) be the responsibility of a person or group of persons who should be responsible to the senior management of the competent authority and who perform(s) compliance monitoring activities with functional independence from the units/departments (s)he (they) oversees (oversee) and with direct access to the senior management of the competent authority and to appropriate management for safety matters.

**AMC1 ATM/ANS.AR.B.005 Allocation of tasks to qualified entities**

## ASSESSMENT OF THE QUALIFIED ENTITIES

- (1) The competent authority should include in its system to initially and continuously assess the qualified entity's (ies') compliance with Annex V to Regulation (EC) No 216/2008, the possibility for the competent authority to perform audits of the qualified entity (ies).
- (2) The competent authority should verify that all qualified entities' personnel concerned with the conduct of audits or reviews should be adequately trained and qualified. The competent authority should verify how the qualified entities:
  - (1) define and document the education, training, technical and operational knowledge, experience and qualifications for those involved in oversight activities;
  - (2) ensure specific training for those involved in oversight activities; and
  - (3) ensure that personnel designated to conduct audits meet specific qualification criteria. The criteria should address:
    - (i) the knowledge and understanding of the requirements related to the services provision in ATM/ANS and other ATM network functions against which audits may be performed;
    - (ii) the use of assessment techniques;
    - (iii) the skills required for managing an audit; and
    - (iv) the demonstration of competence of auditors through evaluation or other acceptable means.

**GM1 ATM/ANS.AR.B.005 Allocation of tasks to qualified entities**

## CERTIFICATION TASKS

The tasks that may be performed by a qualified entity on behalf of the competent authority include those related to the initial certification and continuing oversight of service providers as defined in this Regulation, with the exclusion of the issuance of a certificate.

**AMC1 ATM/ANS.AR.B.015(a)(2) Record-keeping**

## DURATION OF RETENTION PERIOD OF RECORDS

Records related to the training and qualification of the personnel of the competent authority should be kept until the end of their employment.

**AMC1 ATM/ANS.AR.B.015(a)(8) Record-keeping**

## RECORD-KEEPING FOR FUNCTIONAL SYSTEMS CHANGE MANAGEMENT PROCEDURES

The competent authority should keep a record of all the change management procedures, modifications and deviations it has approved in accordance with ATM/ANS.AR.C.030(a) and those that have been rejected, together with a rationale. The competent authority should be able to cross-reference them to the requirement of the associated requirement in the Regulation that they intend to comply with.

**SUBPART C — OVERSIGHT, CERTIFICATION AND ENFORCEMENT (ATM/ANS.AR.C)****AMC1 ATM/ANS.AR.C.010(a) Oversight**

## AUDITS

The audits should include oversight of changes to the functional system in order to:

- (a) verify that changes made to the functional system:
  - (1) comply with ATM/ANS.OR.A.045;
  - (2) have been managed in accordance with the procedures identified in ATM/ANS.OR.B.010(a) that have been approved; and
  - (3) are being verified against the monitoring criteria that were identified in the assurance argument as a result of complying with ATM/ANS.OR.C.005(b)(2) or ATS.OR.205(b)(6), as appropriate; and
- (b) verify that if, as a result of the monitoring referred to in (a)(3), the argument, referred to in ATS.OR.205(a)(2) and ATM/ANS.OR.C.005(a)(2), is found to be incomplete and/or incorrect, then the service provider has initiated a change or has revised the argument such that the inferences or evidence are now sufficient to justify the claim.

**GM1 ATM/ANS.AR.C.010(b)(1) Oversight**

## IMPLEMENTING ARRANGEMENTS

Implementing arrangements should be considered to be the service provider's (safety) management system(s) documentation, manuals, service provision conditions or the certificate and the content of the declaration, as applicable.

**GM2 ATM/ANS.AR.C.010 Oversight**

## DEMONSTRATION OF COMPLIANCE — DAT PROVIDERS

In addition to the applicable requirements, the competent authority should assess the standards and processes applied by the DAT provider. The following specific areas should be overseen against EUROCAE ED-76A/RTCA DO-200B 'Standards for Processing Aeronautical Data', dated June 2015:

- (a) plans and procedures, including:

- (1) alteration procedures (i.e. informing the supplier or data originator of the data alteration and endeavouring to receive concurrence/agreement);
  - (2) data verification and validation (including the procedures that define the level of checking of the database prior to release). These procedures should be reviewed to ensure adequacy;
  - (3) reporting and handling procedures (including occurrence reporting);
  - (4) data configuration management;
  - (5) data transmission practices;
  - (6) tool qualification; and
  - (7) internal audit checks and response mechanisms;
- (b) internal standards; and
- (c) definition of 'Data Quality Requirements'.

EUROCAE ED-76/RTCA DO-200A may be also used for the demonstration of compliance.

#### **AMC1 ATM/ANS.AR.C.015 Oversight programme**

##### GENERAL

- (a) When establishing an oversight programme appropriate to each provider, the competent authority should take into account the safety performance of the service provider to be audited. Inspectors for the oversight of services provision and other ATM network functions should work in accordance with the schedule provided to them.
- (b) Having regard to the performance of service providers, the competent authority may vary the frequency of the audits or inspections.
- (c) When defining the oversight programme, the competent authority should assess the risks related to the activity of each service provider, certified or declared, or the Network Manager, and adapt the audits and inspections to the level of risk identified.

#### **AMC1 ATM/ANS.AR.C.015(a) Oversight programme**

##### SPECIFIC NATURE AND COMPLEXITY OF THE ORGANISATION

- (a) When determining the oversight programme for a service provider, the competent authority should consider in particular the following elements, as applicable:
  - (1) the implementation by the service provider of industry standards, directly relevant to the organisation's activity subject to this Regulation;
  - (2) the procedure applied for and scope of changes not requiring prior approval in accordance with ATM/ANS.OR.A.040(b); and
  - (3) specific procedures implemented by the service provider related to any alternative means of compliance used.
- (b) For the purpose of assessing the complexity of an organisation's management system, AMC1 ATM/ANS.OR.B.005(e) should be used.

**AMC1 ATM/ANS.AR.C.015(a)(1) Oversight programme**

## AREA OF POTENTIAL SAFETY CONCERNS — DAT PROVIDERS

The competent authority should audit the DAT provider's procedures for dealing with situations where resolution and corrections could not be obtained with the aeronautical data source or other DAT providers for data that has been called into question in accordance with AMC1 DAT.TR.105(a). Such audits should confirm that effective controls are in place to ensure that an unsafe product is not released and that such concerns are communicated to customers in accordance with the requirements laid down in DAT.OR.200.

**GM1 ATM/ANS.AR.C.020 Issue of certificates**

## OPERATIONAL CONDITIONS OR LIMITATIONS

- (a) If, during the certification process, an operational condition or limitation has been determined as necessary to be imposed on or implemented by the service provider, the competent authority should ensure that such operational condition or limitation is prescribed in the service provision conditions attached to the service provider's certificate.
- (b) Limitations in the certification may be used to identify restrictions to be applied in the provision of services and any other particularity of the service provided (e.g. intended usage, type of operations).
- (c) Limitations may also relate to some restrictions on the service(s) provided associated with non-compliances with respect to some performance requirements.
- (d) Conditions may address actions that require to be accomplished to confirm the validity of the certificate.

**GM2 ATM/ANS.AR.C.020 Issue of certificates**

## EXAMPLES OF LIMITATIONS IN SERVICES

- (a) Limitations for the provision of ILS Signal in Space could be:
  - (1) CAT I;
  - (2) CAT II; and
  - (3) CAT III.
- (b) Limitations for the provision of Global Navigation Satellite System (GNSS) signal could be:
  - (1) based on the system used to provide Signal-in-Space:
    - (i) GNSS Core System;
    - (ii) Satellite-Based Augmentation System (SBAS); and
    - (iii) Ground-Based Augmentation System (GBAS); and/or
  - (2) based on the type of operations supported (e.g. en-route, en-route terminal, NPA, APV-I, APV-II, Cat I, from ICAO Annex 10)
- (c) Limitations for the Aeronautical Mobile Service (air-ground communication) could be:
  - (1) for flight information services;
  - (2) for area control service;
  - (3) for approach control service; and
  - (4) for aerodrome control service.

- (d) Limitations for the provision of data from the secondary surveillance radar (SSR) could be:
  - (1) mode A/C; and
  - (2) mode S.
- (e) Limitations for the provision of data from automatic dependant surveillance (ADS) could be:
  - (1) ADS-C; and
  - (2) ADS-B.

**AMC1 ATM/ANS.AR.C.025(b) Changes**

**CHANGES REQUIRING PRIOR APPROVAL**

- (a) Upon receipt of a notification for a proposed change that requires prior approval, the competent authority should:
  - (1) formally acknowledge the receipt of the notification in writing within 10 working days;
  - (2) assess the proposed change in relation to the service provider's certificate or the conditions attached or management system of it, and the applicable requirements of Part-ATM/ANS.OR, as well as any other applicable requirements within 30 working days after the receipt of all the evidence supporting the proposed change;
  - (3) assess the actions proposed by the service provider in order to show compliance; and
  - (4) notify the service provider of its approval/rejection without delay.
- (b) A simple management system documentation system status sheet should be maintained, which contains information on when an amendment was received by the competent authority and when it was approved, if applicable.
- (c) The competent authority should, in due time, verify the compliance of the service provider and, depending on the change, examine the need for prescribing any condition for the operation of it during the change.
- (d) For changes requiring prior approval, the competent authority may conduct an audit of the service provider in order to verify the service provider's compliance with the applicable requirements.
- (e) When notifying, the competent authority should also inform the service provider of the right of appeal, as exists under the applicable national legislation.

**AMC2 ATM/ANS.AR.C.025(b) Changes**

**CHANGE OF NAME OF THE SERVICE PROVIDER**

Upon receipt of the notification and the relevant parts of the service provider's documentation as required by Part-ATM/ANS.OR, the competent authority should reissue the certificate.

**GM1 ATM/ANS.AR.C.025(b) Changes**

**CHANGE OF NAME OF THE SERVICE PROVIDER**

A name change alone does not require the competent authority to audit the organisation unless there is evidence that other aspects of the organisation have changed.

**GM2 ATM/ANS.AR.C.025(b) Changes**

## APPROPRIATE ACTION

Appropriate action by the competent authority may include suspension, limitation or revocation of the service provider's certificate.

**AMC1 ATM/ANS.AR.C.025(c) Changes**

## CHANGES NOT REQUIRING PRIOR APPROVAL

- (a) When the service provider submits the name of the nominee for the nominated persons in accordance with AMC2 ATM/ANS.OR.A.040(b), the competent authority should consider his or her qualification.
- (b) Upon receipt of a notification for a proposed change that does not require prior approval by the competent authority, it should acknowledge receipt of the notification in writing within 10 working days from receipt unless it is not specified under the relevant national legislation.

**GM1 ATM/ANS.AR.C.030 Approval of change management procedures for functional systems**

## GENERAL

The review by the competent authority is focused on the change management procedures and not on the project management part of these procedures that are not required by the regulations, even though they may be useful for the smooth execution of the project dealing with the change. Consequently, not all parts of a procedure may be approved by the competent authority. The approved parts should be identified in the record (see AMC1 ATM/ANS.AR.B.015(a)(8)) and communicated to the service provider.

**AMC1 ATM/ANS.AR.C.030(a) Approval of change management procedures for functional systems**

## MEANS AND METHOD OF SUBMITTING PROCEDURES

The competent authority should agree with the service provider on the means and method of submitting the procedures, modifications and deviations referred to in ATM/ANS.AR.C.030(a). Until an agreement is reached, the competent authority will prescribe the means and method of submission.

**AMC1 ATM/ANS.AR.C.030(b) Approval of change management procedures for functional systems**

## APPROVAL OF PROCEDURES

- (a) When approving the change management procedures for functional systems as per ATM/ANS.OR.B.010, the competent authority should perform the following:
  - (1) check that the procedures used by a service provider to manage changes cover the life cycle of a change as defined in ATM/ANS.OR.C.005(a)(1) or ATS.OR.205(a)(1);
  - (2) use the compliance matrix provided by the service provider (referred to in AMC1 ATM/ANS.OR.B.010(a)), when reviewing the content of the procedures, modifications and/or deviations referred to in ATM/ANS.AR.C.030(a); as part of the oversight activity, the competent authority should check that the compliance matrix covers all the aforementioned requirements.
  - (3) check that the procedures make mandatory provisions that require actions to be undertaken and all required evidence to be produced to comply with requirements laid down in ATM/ANS.OR.A.045, ATM/ANS.OR.C.005, ATS.OR.205 and ATS.OR.210;
  - (4) check that the procedures identify the roles and responsibilities of the service provider in the change management processes;



- (5) check that the procedures state that it is not allowed to use new, modified or deviating change management procedures until approval is granted; and
  - (6) check that the procedures state that any change selected for review must not enter into operational service before the approval is granted.
- (b) The competent authority should provide a response to the service provider's notification of change referred to in ATM/ANS.OR.A.045(a) without undue delay.

**GM1 ATM/ANS.AR.C.030(b) Approval of change management procedures for functional systems**  
DEVIATIONS

Some changes might stem from the need to implement immediate action and, therefore, their implementation cannot be delayed until they receive approval or communication that the change is not being reviewed from the competent authority such as changes due to urgent unforeseen circumstances that would, if uncorrected, lead to an immediate unsafe condition, presence of volcanic ash, etc.

The competent authority may consider this type of changes as part of the approval of change management procedures for functional systems.

**AMC1 ATM/ANS.AR.C.035(a) Decision to review a notified change to the functional system**  
MEANS AND METHOD OF SUBMITTING NOTIFICATION OF CHANGES TO FUNCTIONAL SYSTEMS

The competent authority should agree with the service provider on the means and method of submitting the notification of changes and additional information referred to in ATM/ANS.OR.A.045(a). Until an agreement is reached, the competent authority will prescribe the means of submission.

**GM1 ATM/ANS.AR.C.035(b) Decision to review a notified change to the functional system**  
SELECTION CRITERIA FOR REVIEWING A NOTIFIED CHANGE TO THE FUNCTIONAL SYSTEM

The need for review should be based on a combination of the likelihood that the safety (support) argument may be complex or unfamiliar to the service provider undertaking the change and the severity of the consequences associated with the change. This is a risk function and is referred to as the 'risk posed by the change'.

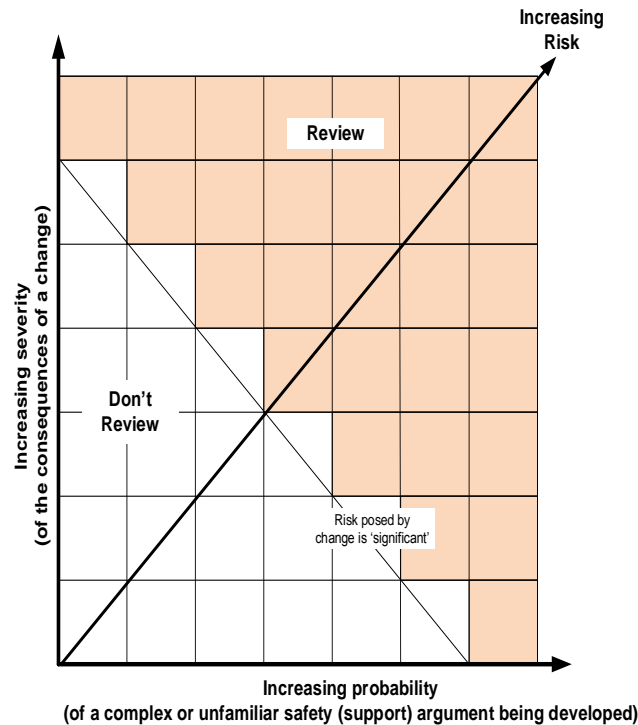
The following two aspects of the change:

- the novelty of the change; and
- the capabilities of the service provider (e.g. the effectiveness of the service provider's (safety) management system),

as well as the service provider performing the change contribute to the service provider's unfamiliarity of the necessary argument. The assessment of the severity of the consequence is made at a very early stage in the development of the change and, therefore, will be based on coarse data. It should, therefore, be conservative.

The risk posed by a change could be a scalar measure associated with the change and be some combination of the two inputs: the probability of a complex or unfamiliar argument and the severity of the consequences of the proposed change. The result is that the risk posed by a particular change is the sum of the inputs.

One possibility may be based on the use of a risk matrix in which risk parameters are represented according to a coarse-grained measurement scheme, and the selection criteria establish the boundary beyond which changes will be selected for review, as shown below:



The selection criterion, a function of risk with the value 'significant', is then a straight line, if the scales are logarithmic.

**GM1 ATM/ANS.AR.C.035(c) Decision to review a notified change to the functional system**  
OTHER SELECTION CRITERIA

- (a) Some changes may not necessarily need to be reviewed providing that, even though they relate to safety, they can be considered as routine by the provider as they have been consistently assessed, implemented and proved safe in the past and, therefore, the competent authority has sufficient confidence that the provider will address them in a similar manner.
- (b) The selection criterion for review may deviate from a simple threshold on the scalar risk metric (distance from the origin), to deal with concerns due to the coarse grain and high uncertainty of the inputs. For instance, a separate threshold on the 'severity' axis may be used to specify, for instance:
  - (1) that changes with very high potential severity should always be reviewed, irrespective of the probability of the safety argument being incomplete and/or incorrect (**Figure** below). This criterion may well respond to common perceptions and could be justified by the fact that judgements of low probabilities based on limited information are often unreliable, and errors in the judgment of risk are proportional to the error on probability and the size of the loss; and
  - (2) that changes with minor potential severity need not be reviewed, irrespective of the probability of the safety argument being incomplete and/or incorrect (**Figure** below) (though the process may retain the option for the competent authority to review the change, since the estimate itself of potential severity may be suspected of being erroneous).
- (c) It is also possible that deviations be required on the basis of some of the component factors that affect either probability or severity, e.g. exempting changes based on small size of change and high competence of the air traffic services provider.

- (d) In order to validate the process or provide data for the evolution of the process, it may be advisable to randomly select changes to review and then assess whether the safety argument is complete and/or correct or not and whether or not the case would have been selected for review using the current criteria for the selection process.

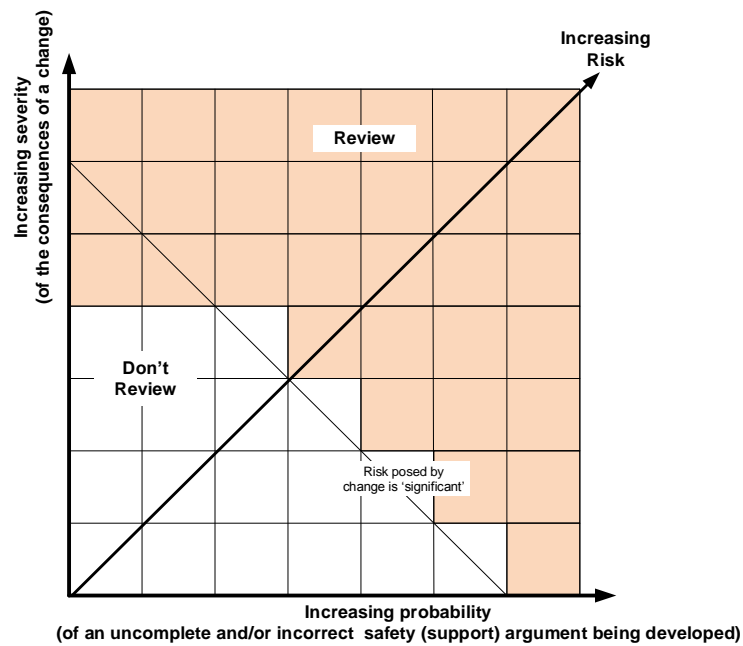


Figure 1: Criteria that may be used when severity is high

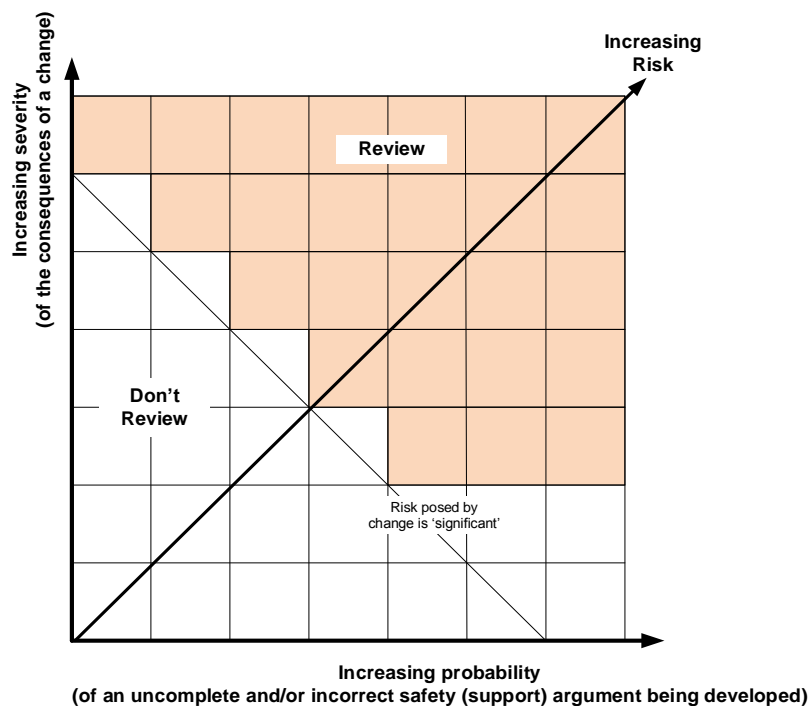


Figure 2: Criteria that may be used when severity is low

**GM1 ATM/ANS.AR.C.050 Findings, corrective actions, and enforcement measures**  
 CATEGORIES OF FINDINGS — DOCUMENTARY EVIDENCE

Documentary evidence may include but is not limited to:

- (a) operations or technical manuals;

- (b) contracts or other types of arrangements;
- (c) training, qualification or medical records;
- (d) inspection records;
- (e) test or exercise results;
- (f) internal audit results;
- (g) maintenance records; and
- (h) other similar material required to be maintained by the service provider, etc.

**GM2 ATM/ANS.AR.C.050 Findings, corrective actions, and enforcement measures**  
ENFORCEMENT MEASURES — FINANCIAL PENALTIES

In accordance with Article 7(7) of Regulation No 550/2004 and Articles 10, 22a(d), 25, and 68 of Regulation (EC) No 216/2008, the competent authority may additionally, and depending on the nature and the repetitiveness of the findings or the level of implementation of the corrective actions, impose appropriate enforcement measures that may include financial penalties, which are effective, proportionate, and dissuasive.

**AMC1 ATM/ANS.AR.C.050(e) Findings, corrective actions, and enforcement measures**  
CORRECTIVE ACTION AND CORRECTIVE ACTION IMPLEMENTATION PERIOD — DAT PROVIDERS

- (a) In case of a Level 1 finding, the competent authority may extend the initial 21-working-day period for demonstration of corrective action by the DAT provider, depending on the nature of the finding.
- (b) In case of a Level 2 finding, the initial corrective action implementation period granted by the competent authority should be appropriate to the nature of the finding but should not, in any case, exceed 3 months. At the end of this period and subject to the nature of the finding, the competent authority may extend the 3-month period subject to a satisfactory corrective action plan agreed by the competent authority.

**GM1 ATM/ANS.AR.C.050(e) Findings, corrective actions, and enforcement measures**  
CORRECTIVE ACTION IMPLEMENTATION PERIOD

At the end of the corrective action implementation period included in an action plan approved by the competent authority and subject to the nature of the finding, the competent authority may extend it. It should be subject to a satisfactory corrective action plan agreed by the competent authority.

**GM1 ATM/ANS.AR.C.050(f) Findings, corrective actions, and enforcement measures**  
OBSERVATIONS

The observation should be a way to communicate and draw future audit teams' attention on specific matters that deserve scrutiny. It should be communicated to the audited service provider.