Annex to Decision 2017/006/R

‘AMC and GM to Part-ARO — Issue 3, Amendment 6’

The Annex to Decision 2014/025/R is hereby amended as follows:

The text of the amendment is arranged to show deleted, new or amended text as shown below:

1. deleted text is marked with strike through;
2. new or amended text is highlighted in grey; and
3. an ellipsis (…) indicates that the remaining text is unchanged in front of or following the reflected amendment.

AMC1 ARO.GEN.120(e) Means of compliance
DEMONSTRATION OF COMPLIANCE

In order to demonstrate that the implementing rules are met, a risk assessment should be completed and documented. The result of this risk assessment should demonstrate that an equivalent level of safety to that established by the acceptable means of compliance (AMC) adopted by the Agency is reached.

(...) 

AMC1 ARO.GEN.200(a)(2) Management system
QUALIFICATION AND TRAINING — GENERAL

(a) It is essential that the competent authority has the full capability to adequately assess the continued competence of an organisation by ensuring that the whole range of activities is assessed by appropriately qualified personnel.

(b) For each inspector, the competent authority should:

1. define the competencies required to perform the allocated certification and oversight tasks;
2. define the associated minimum qualification requirements;
3. establish initial and recurrent training programmes in order to maintain and to enhance inspector competency at the level necessary to perform the allocated tasks; and
4. ensure that the training provided meets the established standards and is regularly reviewed and updated whenever necessary.

(a) The competent authority should ensure appropriate and adequate training of its personnel to meet the standard that is considered necessary to perform the work. To ensure personnel remain qualified, arrangements should be made for initial and recurrent training as required.
(b) The basic capability of the competent authority’s personnel is a matter of recruitment and normal management functions in selection of personnel for particular duties. Moreover, the competent authority should provide training in the basic skills as required for those duties. However, to avoid differences in understanding and interpretation, all personnel should be provided with further training specifically related to Regulation (EC) No 216/2008, its Implementing Rules and related AMCs, CSs and GM, as well as related to the assessment of alternative means of compliance.

(c) The competent authority may provide training through its own training organisation with qualified trainers or through another qualified training source.

(d) When training is not provided through an internal training organisation, adequately experienced and qualified persons may act as trainers, provided their training skills have been assessed. If required, an individual training plan should be established covering specific training skills. Records should be kept of such training and of the assessment, as appropriate.

(...) 

AMC2 ARO.GEN.200(a)(2) Management system
QUALIFICATION AND TRAINING — INSPECTORS

(a) Initial training programme:

The initial training programme for inspectors should include, as appropriate to their role, current knowledge, experience and skills in at least all of the following:

(1) aviation legislation organisation and structure;
(2) the Chicago Convention, relevant ICAO annexes and documents;
(3) overview of Regulation (EC) No 216/2008, its implementing rules and the related AMC, CS, and GM the applicable requirements and procedures;
(4) Regulation (EU) No 965/2012 as well as other applicable requirements;
(5) management systems, including the assessment of the effectiveness of a management system, in particular hazard identification and auditing, risk assessment, and non-punitive reporting techniques in the context of the implementation of a ‘just culture’;
(6) auditing techniques;
(7) competent authority procedures relevant to the inspectors’ tasks;
(8) human factors principles;
(9) rights and obligations of inspecting personnel of the competent authority;
(10) ‘on-the-job’ training, relevant to the inspector’s tasks;
(11) suitable technical training, including training on aircraft-specific subjects, appropriate to the role and tasks of the inspector, in particular for those areas requiring approvals.

(b) Recurrent training programme:

The recurrent training programme should reflect, at least, changes in aviation legislation and industry. The programme should also cover the specific needs of the inspectors and the competent authority.
Once qualified, the inspector should undergo training periodically as well as whenever deemed necessary by the competent authority in order to remain competent to perform the allocated tasks. The recurrent training programme for inspectors should include, as appropriate to their role, at least the following topics:

1. changes in aviation legislation, operational environment and technologies;
2. competent authority procedures relevant to the inspector’s tasks;
3. technical training, including training on aircraft-specific subjects, appropriate to the role and tasks of the inspector; and
4. results from past oversight.

(c) An assessment of an inspector’s competency should take place at regular intervals not exceeding three years.

(...)
Human factors related to fatigue

Typical hazards and risks related to fatigue, their possible mitigation measures, and the maturity of hazard identification models (reactive, proactive and predictive)

FRM training and promotion methodologies and how to support ongoing development of FRM

Data collection and analysis methods related to FRM

Integration of FRM into the Management System

Fatigue management documentation, implementation and assurance methodologies

Regulatory framework and current best practices

Auditing and assessment of the effectiveness of an operator’s FRM

Recurrent training (at least every 3 years)

Review of FRM implementation issues

Recent incidents related to fatigue

New FRM developments

Review of changes in legislation, and best practices

GM1 ARO.GEN.200(a)(2) Management System

SUFFICIENT PERSONNEL

The elements to be considered when determining required personnel and planning their availability may be divided into quantitative and qualitative elements:

(1) Quantitative elements:

(iv) the estimated number of persons and organisations, as well as the estimated number of subcontracted organisations used by those persons and organisations, exercising their activity within the territory of the Member State and established or residing in another Member State;

GM2 ARO.GEN.200(a)(2) Management system

INSPECTOR COMPETENCY

(a) Competency is a combination of individual skills, practical and theoretical knowledge, attitude, training, and experience.

(b) An inspector should, by his/her qualifications and competencies, command the professional respect of the inspected personnel.

GM3 ARO.GEN.200(a)(2) Management system

SPECIFIC FLIGHT OPERATIONS INSPECTOR QUALIFICATION

(a) The following characteristics should be considered in order to establish aircraft types/classes with similar technical and operational characteristics:
(1) Engine technology;
(2) Certification basis;
(3) Level of automation;
(4) Flight controls logic (e.g. fly-by-wire, conventional, etc.); and
(5) Size and mass of the aircraft (e.g. maximum take-off mass, wake turbulence category, etc.).

(b) The following factors should be considered with regard to knowledge of the route and area:

(1) Climatological conditions, e.g. exceptionally cold weather;
(2) Availability of adequate aerodromes and their specific features, e.g. high elevation, poor English/communication capability, exceptional approach procedures;
(3) Navigational procedures, including PBN requirements, ETOPS and extended diversion time requirements;
(4) Communication procedures, including required communication performance, any specific and contingency procedures, e.g. loss of communication, drift down, oxygen escape; and
(5) Equipment requirements related to search and rescue, e.g. polar, desert operations, oceanic, remote areas.

GM4 ARO.GEN.200(a)(2) Management system
INSPECTOR TRAINING PROGRAMMES

(a) The competent authority may adapt the duration and depth of the individual training programme of an inspector, provided the required competencies are achieved and maintained.

(b) The following documents, as appropriate to the role of the inspector, are relevant for the initial training programme for inspectors referred to in AMC2 ARO.GEN.200(a)(2):

(1) The Chicago Convention and relevant ICAO annexes and documents.
(2) Regulation (EU) No 376/2014 (Occurrences in civil aviation)
(3) Regulation (EC) No 216/2008, and related implementing rules such as:
   (i) Regulation (EU) No 1178/2011 (Air Crew Regulation);
   (ii) Regulation (EU) No 1332/2011 (Part-AUR);
   (iii) Regulation (EU) No 923/2012 (Part-SERA);
   (iv) Regulation (EU) No 748/2012 (OSD); and

(c) The duration of the on-the-job training should take into account the scope and complexity of the inspector’s tasks. The competent authority should assess whether the required competence has been achieved before an inspector is authorised to perform a task without supervision.

GM5 ARO.GEN.200(a)(2) Management system
FATIGUE RISK MANAGEMENT INSPECTOR TRAINING

‘Theory and effects of fatigue’ refers to:

(a) sleep;
(b) circadian rhythm;
(c) adaptation (acclimatisation) after time-jet zone crossing (westbound and eastbound) and jet lag;
(d) shift work;
(e) bio-mathematical fatigue models; and
(f) measurement of fatigue.

GM6 ARO.GEN.200(a)(2) Management system
FATIGUE RISK MANAGEMENT INSPECTOR TRAINING

Guidance on training for inspectors on fatigue risk management is contained in ICAO Doc 9966 (Manual for the Oversight of Fatigue Management Approaches).

(...)

GM7 ARO.GEN.200(a)(2) Management system
INSPECTOR EXPERIENCE IN EITHER OPERATIONAL MANAGEMENT WITHIN AN AIR TRANSPORT OPERATION OR AS AN INSTRUCTOR OR AS AN EXAMINER

The inspector assigned to certification and oversight tasks should have sufficient experience in roles that enable a thorough understanding of the operational processes.

(a) Experience in operational management refers to previous appointments in functions of organisational relevance, such as in any of the areas below:

(1) flight operations and operational control;
(2) flight crew training; and
(3) management system

Such appointments should not be limited to senior management functions such as nominated persons in accordance with point (b) of ORO.GEN.210. It is important that the inspector assigned to certification and oversight tasks in accordance with AMC4 ARO.GEN.200(a)(2) have sufficient experience which enables a thorough understanding of the operational processes within air transport operations.

(b) In the context of the approval and oversight of aircraft specific flight crew training and checking, the inspector should have experience as an instructor.

(...)

SECTION III — OVERSIGHT, CERTIFICATION AND ENFORCEMENT

AMC1 ARO.GEN.300(a);(b);(c) Oversight
GENERAL

(a) The competent authority should assess the organisation and monitor its continued competence to conduct safe operations in compliance with the applicable requirements. The competent authority should ensure that accountability for assessing organisations is clearly defined. This accountability may be delegated or shared, in
whole or in part. Where more than one competent authority is involved, a responsible person should be appointed under whose personal authority organisations are assessed.

(b) It is essential that the competent authority has the full capability to adequately assess the continued competence of an organisation by ensuring that the whole range of activities is assessed by appropriately qualified personnel.

(...)"

GM1 ARO.GEN.300(a);(b);(c) Oversight
GENERAL

(...)"

(d) Oversight of the organisation includes a review and assessment of the qualifications of nominated persons.

(...)"

AMC1 ARO.GEN.305(b);(d);(d1) Oversight programme
SPECIFIC NATURE AND COMPLEXITY OF THE ORGANISATION, RESULTS OF PAST OVERSIGHT

(a) When determining the oversight programme for an organisation, the competent authority should consider in particular the following elements, as applicable:

(...)

(4) specific procedures implemented by the organisation related to any alternative means of compliance used; and

(5) number of subcontractors.

(b) For the purpose of assessing the complexity of an organisation’s management system, AMC1 ORO.GEN.200(b) should be used.

(...)"

AMC2 ARO.GEN.305(b) Oversight programme
PROCEDURES FOR OVERSIGHT OF OPERATIONS

(...)

(c) The following types of inspections should be envisaged, as part of the oversight programme:

(1) flight inspection,

(2) ground inspection (e.g. documents and records),

(3) training inspection (e.g. ground, aircraft/FSTD),

(4) ramp inspection.

The inspection should be a ‘deep cut’ through the items selected, and all findings should be recorded. Inspectors should review the root cause(s) identified by the organisation for each confirmed finding.

Inspectors The competent authority should be satisfied that the root cause(s) identified and the corrective actions taken are adequate to correct the non-compliance and to prevent re-occurrence.

(...)"
GM1 ARO.GEN.305(b);(c);(d);(d1) Oversight programme

STORAGE PERIODS OF RECORDS

If the organisation’s oversight cycle has been extended, the minimum storage periods for records should be aligned with the extended oversight cycle to ensure that the competent authority has access to all relevant records.

AMC2 ARO.GEN.305(c) Oversight programme

OVERSIGHT PLANNING CYCLE

(…)

(d) For organisations holding more than one certificate, the competent authority may define an integrated oversight schedule to include all applicable audit items. In order to avoid duplication of audits, credit may be granted for specific audit items already completed during the current oversight planning cycle, subject to four conditions:

(…) (3) the competent authority should be satisfied that there is no reason to believe evidence that standards have deteriorated in respect of those specific audit items being granted a credit;

(…)

AMC1 ARO.GEN.310(a) Initial certification procedure — organisations

VERIFICATION OF COMPLIANCE

(a) Upon receipt of an application for an air operator certificate (AOC), the competent authority should:

(1) assess the management system and processes, including the operator’s organisation and operational control system;

(2) review the operations manual and any other documentation provided by the organisation; and

(3) for the purpose of verifying the organisation’s compliance with the applicable requirements, conduct an audit at the organisation’s facilities. The competent authority may should require the conduct of one or more demonstration flights operated as if they were commercial flights, or an in-flight inspection should be conducted at the earliest opportunity.

(…)

AMC1 ARO.GEN.330 Changes — organisations

AOC HOLDERS

(a) Changes to nominated personnel specified in Part-ORO:

(1) The competent authority should be informed of any changes to the accountable manager personnel specified in Part-ORO.GEN.210(a) that may affect the certificate or terms of approval/approval schedule attached to it, require prior approval under ARO.GEN.330(a) and ORO.GEN.130(a) and (b).

(2) When an organisation submits the name of a new nominee for any of the persons nominated as per ORO.GEN.210(b), the competent authority should require the organisation to produce a written résumé of the proposed person's qualifications. The competent authority should reserve the right to interview the nominee or call for additional evidence of his/her suitability before deciding upon his/her acceptability.

(…)
GM2 ARO.GEN.350(d) Findings and corrective actions — organisations
CORRECTIVE ACTION IMPLEMENTATION PERIOD

The 3-month period should commence from the date of the communication of the finding to the organisation in writing and requesting corrective action to address the non-compliance(s) identified.

SUBPART OPS — AIR OPERATIONS

SECTION I — CERTIFICATION OF COMMERCIAL AIR TRANSPORT OPERATORS

(...) 

GM1 ARO.OPS.100(b) Issue of the air operator certificate
AREA OF OPERATION

(a) If the area of operation within the operational specifications of Appendix II to Part-ARO is not defined as ‘worldwide’ or ‘with no geographical limit’, the competent authority should describe the boundaries of a permissible area of operation by listing for example:

(1) a continuous line between a list of coordinates (Lat./Long.);
(2) the national boundary of the State of issuance of the AOC;
(3) a flight information region (FIR) boundary;
(4) a combination of adjacent FIR boundaries;
(5) ICAO region(s) as per ICAO Doc 7030; and
(6) operations in the Inter-Tropical Convergence Zone (ICTZ).

(b) The following factors should be taken into account when deciding the area of operation for CAT operations:

(1) The adequacy of the operational control and maintenance arrangements within the proposed area of operation.

(2) The general suitability of the aircraft which are to be used and in particular:

(i) the performance capability of the aircraft with regard to the terrain;
(ii) the need for any special equipment;
(iii) the aircraft systems and the level of redundancy of those systems, with regard to extremes of weather or climate; and
(iv) the need for any special dispatch minima with regard to the content of the MEL.

(3) Any special training required for:

(i) weather or climatic conditions likely to be encountered; and
(ii) compliance with specific approvals under Part-SPA (MNPS, RVSM, etc.).

(4) The need for the flight crew to comply with non-SPA ATC requirements such as the use of:

(i) non-standard phraseology;
(ii) altitude clearances in metres; and
(iii) altimeter settings in inches of mercury, wind speed in metres/sec, visibility in miles, etc.
(5) The navigation and communication facilities available over the routes proposed and the associated equipment of the aircraft.

(6) The adequacy of aerodromes or operating sites available within the proposed area, and the availability of current maps, charts, associated documents or equivalent data.

(7) The availability of adequate search and rescue facilities, and the need to carry special survival equipment and the need for training in the use of the survival equipment.

(8) Survival equipment available for the operator and installed in the aircraft used.

**GM2 ARO.OPS.200  Specific approval procedure**

SPECIFIC APPROVALS FOR TRAINING ORGANISATIONS

The specific approvals, as established in Appendix V, for non-commercial operations and specialised operations, also apply to training organisations with a principal place of business in a Member State.

**GM1 ARO.OPS.235(b);(c)  Approval of individual flight time specification schemes**

ICAO DOC 9966 (MANUAL FOR THE OVERSIGHT OF FATIGUE MANAGEMENT APPROACHES)

Further guidance on fatigue risk management processes, appropriate fatigue management, the underlying scientific principles and operational knowledge may be found in ICAO Doc 9966 (Manual for the Oversight of Fatigue Management Approaches).

**AMC1 ARO.RAMP.115(b)(2)  Qualification of ramp inspectors**

SENIOR RAMP INSPECTORS

(a) The competent authority should may appoint senior ramp inspectors provided they appointees meet the qualification criteria established by that competent authority. These qualification criteria should contain at least the following requirements:

(1) the appointee has been a qualified ramp inspector over the 3 years 36 months prior to his/her appointment;

(2) during the period under (1), the appointee has performed a minimum of 72 ramp inspections, with no less than 24 ramp inspections during each of the three 12 months segments prior to the appointment, evenly spread over this period; and

(3b) The senior ramp inspector will remain qualified appointed only if performing at least 24 ramp inspections during any 12-month period after his/her appointment each calendar year with no less than 12 ramp inspections during each half of that calendar year.

(bc) If the competent authority does not have senior ramp inspectors to conduct on-the-job training, such training should may be performed by a senior ramp inspector from another State.

(ed) Additional factors to be considered when nominating senior ramp inspectors include knowledge of training techniques, professionalism, maturity, judgment, integrity, safety awareness, communication skills, personal standards of performance and a commitment to quality.

(de) If a senior ramp inspector should lose his/her qualification appointment as a result of failure to reach meet the conditions on minimum number of ramp inspections mentioned in paragraph point (ab)(1) and/or (b)(2) above, he/she should may be re-qualified reappointed by the Member State competent authority after performing the missing number of ramp inspections under the supervision of another senior ramp inspector. These ramp inspections should be performed during the next half calendar year in
addition to the ones required for that period by performing at least four inspections under the supervision of a senior ramp inspector, within a maximum period of 2 months.

(ef) Senior ramp inspectors, like any other inspectors, should also receive recurrent training according to the frequency mentioned in paragraph point (b) of AMC1 ARO.RAMP.115(b)(3).

**GM2 ARO.RAMP.115(b)(2) Qualification of ramp inspectors**

**SENIOR RAMP INSPECTORS**

(a) Before ramp inspectors may be appointed as senior ramp inspectors, they need at least to be qualified inspectors for 36 months and to have performed 72 ramp inspections during that period. Ideally, those inspections should be evenly spread over the 36-month period. If the qualification of the ramp inspector was temporarily lost during the 36-month period, but regained in accordance with AMC2 ARO.RAMP.115(b)(3)(c), the ramp inspector should be considered as qualified. Regarding the recent experience, contrary to the requirements for non-senior inspectors, the mentioned number of inspections for senior inspectors are always ramp inspections, and may not be reduced by other inspections.

(b) The recent experience compliance should be reviewed on 1 January and 1 July. In case the senior inspector does not meet the minimum number of inspections, the inspector may be reappointed as soon as the missing number of inspections as referred to in AMC1 ARO.RAMP.115(b)(2)(e) have been performed. There is no need to wait until the next measuring date. For the calendar year during which the senior inspector was firstly appointed, the recent experience criteria may be applied on a pro rata basis.

**AMC1 ARO.RAMP.115(b)(3) Qualification of ramp inspectors**

**RECURRENT TRAINING**

(a) Once qualified, ramp inspectors should undergo recurrent training in order to be kept up-to-date.

(ab) The competent authority should ensure that all ramp inspectors undergo recurrent training at least once every 3 years after being qualified as ramp inspectors or and whenever deemed necessary by the competent authority or the Agency, e.g. after major changes in the inspection procedures. The Agency will inform the competent authority of such necessity and on the associated timeframe for implementation.

(bc) Recurrent training should be delivered by a competent authority or by an approved training organisation.

(cd) The recurrent training should cover at least the following elements:

1. new regulatory and procedural developments;
2. new operational practices;
3. articulation review of other European processes and regulations (list of banned operators or aircraft pursuant to Regulation (EC) No 2111/2005, authorisation of third-country operators); using data collected through ramp inspections; and
4. standardisation and harmonisation issues.

(de) If a ramp inspector loses his/her qualification as a result of failure to undergo the recurrent training mentioned in paragraph point (b) above, he/she should be re-qualified by the competent authority by providing him/her with the missing recurrent training.
AMC2 ARO.RAMP.115(b)(3) Qualification of ramp inspectors

RECENT EXPERIENCE REQUIREMENTS

(a) The minimum number of inspections required for ramp inspectors will remain qualified only if performing at least to maintain their qualification should be conducted during any 12-month period after qualification, evenly spread during such intervals 12 ramp inspections during each calendar year, after their qualification, with no less than 6 ramp inspections during each half of that calendar year.

(b) This number may be reduced up to a half by the number of inspections on aircraft operated by domestic operators if the inspector is also a qualified flight operations, ramp or airworthiness inspector of a competent authority and is regularly engaged in the oversight of such operators.

(c) If the inspector has performed some ramp inspections but he/she loses his/her qualification as a result of not reaching the minimum number of inspections during any 12-month period after qualification, he/she may be re-qualified by the competent authority by performing a number of inspections under the supervision of a senior ramp inspector. The number of supervised inspections should not be less than half the number of missed inspections according to the minimum requirement. All ramp inspections under supervision which are necessary for re-qualification should be performed within 90 calendar days.

Should a ramp inspector lose his/her qualification as a result of failure to meet the conditions on the minimum number of ramp inspections mentioned in point (a) above, he/she may be requalified by the competent authority after performing the missing number of inspections under the supervision of a senior ramp inspector. These inspections should be performed as ramp inspections during the next half calendar year in addition to the ones required for that period.

(d) If the inspector loses his/her qualification because he/she has not been engaged in performing inspections on aircraft for more than 12 months—a period of 2 to 6 consecutive halves of a calendar year, he/she may be requalified by the competent authority only after successfully completing on-the-job-training as prescribed in AMC2 ARO.RAMP.115(b)(2) and any required recurrent training.

(e) If the inspector loses his/her qualification because he/she has not been engaged in performing inspections on aircraft for more than 36 months—6 consecutive halves of a calendar year, he/she should be fully requalified by successfully completing initial theoretical, practical and on-the-job training.

(f) The competent authority should ensure that all ramp inspectors undergo recurrent training at least once every 3 years after being qualified as ramp inspectors and whenever deemed necessary by the Agency due to significant changes to the ramp inspection programme.

GM1 ARO.RAMP.115(b)(3) Qualification of ramp inspectors

RECENT EXPERIENCE REQUIREMENTS

The recent experience requirements should be reviewed on 1 January and 1 July. For the half calendar year during which the inspector was firstly qualified, the recent experience criteria may be applied on a pro rata basis.