

Annex to Decision 2011/011/R

Annexes II and III to Decision ED/2003/19/RM of the Executive Director of the Agency of 28 November 2003, on 'Acceptable means of compliance and guidance material to Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks', are hereby amended as follows:

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

1. deleted text is shown with a strike through: ~~deleted~~
2. new text is highlighted with grey shading: **new**
3. ... indicates that remaining text is unchanged in front of, or following the reflected amendment.

A. Decision No 2003/19/RM, Annex II (AMC to Part-145), is hereby amended as follows:

1. In point AMC 145.A.30(d), the first Paragraph is replaced by the following:

1. Has sufficient staff means that the organisation employs or contracts competent staff, as detailed in the man-hour plan, of which at least half the staff that perform maintenance in each workshop, hangar or flight line on any shift should be employed to ensure organisational stability. For the purpose of meeting a specific operational necessity, a temporary increase of the proportion of contracted staff may be permitted to the organisation by the competent authority, in accordance with an approved procedure which should describe the extent, specific duties, and responsibilities for ensuring adequate organisation stability. For the purpose of this subparagraph, employed means the person is directly employed as an individual by the maintenance organisation approved under Part-145, whereas contracted means the person is employed by another organisation and contracted by that organisation to the maintenance organisation approved under Part-145.

2. Point AMC 145.A.30(e) is deleted and four new AMCs (AMC 1 145.A.30(e), AMC 2 145.A.30(e), AMC 3 145.A.30(e) and AMC 4 145.A.30(e)) are added:

AMC 1 145.A.30 (e) - Personnel requirements

Competence should be defined as a measurable skill or standard of performance, knowledge and understanding, taking into consideration attitude and behaviour.

The referenced procedure requires amongst others that planners, mechanics, specialised services staff, supervisors, certifying staff and support staff, whether employed or contracted, are assessed for competence before unsupervised work commences and competence is controlled on a continuous basis.

Competence should be assessed by evaluation of:

- on-the-job performance and/or testing of knowledge by appropriately qualified personnel, and
- records for basic, organisational, and/or product type and differences training, and

— experience records.

Validation of the above could include a confirmation check with the organisation(s) that issued such document(s). For that purpose, experience/training may be recorded in a document such as a log book or based on the suggested template in GM 3 to 145.A.30(e).

As a result of this assessment, an individual's qualification should determine:

— which level of ongoing supervision would be required or whether unsupervised work could be permitted.

— whether there is a need for additional training.

A record of such qualification and competence assessment should be kept.

This should include copies of all documents that attest to qualification, such as the licence and/or any authorisation held, as applicable.

For a proper competence assessment of its personnel, the organisation should consider that:

1. In accordance with the job function, adequate initial and recurrent training should be provided and recorded to ensure continued competence so that it is maintained throughout the duration of employment/contract.

2. All staff should be able to demonstrate knowledge of and compliance with the maintenance organisation procedures, as applicable to their duties.

3. All staff should be able to demonstrate an understanding of human factors and human performance issues in relation with their job function and be trained as per AMC 2 145.A.30 (e).

4. To assist in the assessment of competence and to establish the training needs analysis, job descriptions are recommended for each job function in the organisation. Job descriptions should contain sufficient criteria to enable the required competence assessment.

5. Criteria should allow the assessment to establish that, among others (titles might be different in each organisation):

— Managers are able to properly manage the work output, processes, resources and priorities described in their assigned duties and responsibilities in a safe compliant manner in accordance with regulations and organisation procedures.

— Planners are able to interpret maintenance requirements into maintenance tasks, and have an understanding that they have no authority to deviate from the maintenance data.

— Supervisors are able to ensure that all required maintenance tasks are carried out and, where not completed or where it is evident that a particular maintenance task cannot be carried out to the maintenance data, then such problems will be reported to the 145.A.30(c) person for appropriate action. In addition, for those supervisors, who also carry out maintenance tasks, that they understand such tasks should not be undertaken when incompatible with their management responsibilities.

— Mechanics are able to carry out maintenance tasks to any standard specified in the maintenance data and will notify supervisors of defects or mistakes requiring rectification to re-establish required maintenance standards.

— Specialised services staff are able to carry out specialised maintenance tasks to the standard specified in the maintenance data. They should be able to communicate with supervisors and report accurately when necessary.

- Support staff are able to determine that relevant tasks or inspections have been carried out to the required standard.
- Certifying staff are able to determine when the aircraft or aircraft component is ready to release to service and when it should not be released to service.
- Quality audit staff are able to monitor compliance with Part-145 identifying non-compliance in an effective and timely manner so that the organisation may remain in compliance with Part-145.

Competence assessment should be based upon the procedure specified in GM 2 to 145.A.30(e).

AMC 2 145.A.30 (e) - Personnel requirements

In respect to the understanding of the application of human factors and human performance issues, all maintenance organisation personnel should have received an initial and continuation human factors training. This should concern to a minimum:

- Post-holders, managers, supervisors;
- Certifying staff, support staff and mechanics;
- Technical support personnel such as planners, engineers, technical record staff;
- Quality control/assurance staff;
- Specialised services staff;
- Human factors staff/human factors trainers;
- Store department staff, purchasing department staff;
- Ground equipment operators.

1. Initial human factors training should cover all the topics of the training syllabus specified in GM 145.A.30(e) either as a dedicated course or else integrated within other training. The syllabus may be adjusted to reflect the particular nature of the organisation. The syllabus may also be adjusted to meet the particular nature of work for each function within the organisation. For example:

- small organisations not working in shifts may cover in less depth subjects related to teamwork and communication;
- planners may cover in more depth the scheduling and planning objective of the syllabus and in less depth the objective of developing skills for shift working.

All personnel, including personnel being recruited from any other organisation should receive initial human factors training compliant with the organisation's training standards prior to commencing actual job function, unless their competence assessment justifies that there is no need for such training. Newly directly employed personnel working under direct supervision may receive training within 6 months after joining the maintenance organisation.

2. The purpose of human factors continuation training is primarily to ensure that staff remain current in terms of human factors and also to collect feedback on human factors issues. Consideration should be given to the possibility that such training has the involvement of the quality department. There should be a procedure to ensure that feedback is formally passed from the trainers to the quality department to initiate action where necessary.

Human factors continuation training should be of an appropriate duration in each two year period in relation to relevant quality audit findings and other internal/external sources of information on human errors in maintenance available to the organisation.

3. Human factors training may be conducted by the maintenance organisation itself, or independent trainers, or any training organisations acceptable to the competent authority.
4. The human factors training procedures should be specified in the maintenance organisation exposition.

AMC 3 145.A.30 (e) - Personnel requirements

Additional training in fuel tank safety as well as associated inspection standards and maintenance procedures should be required for maintenance organisations' technical personnel, especially technical personnel involved in the compliance of CDCCL tasks.

EASA guidance is provided for training to maintenance organisation personnel in Appendix IV to AMC to 145.A.30(e) and 145.B.10(3).

AMC 4 145.A.30 (e) - Personnel requirements

Competence assessment should include the verification for the need of additional EWIS training when relevant.

EASA guidance is provided for EWIS training programme to maintenance organisation personnel in AMC 20-22.

3. In point AMC 145.A.35 (f), the three paragraphs are replaced by the following:

As stated in 145.A.35 (f), except where any of the unforeseen cases of 145.A.30(j)(5) applies, all prospective certifying staff and support staff should be assessed for competence related to their intended duties in accordance with AMCs 1, 2, 3 and 4 to 145.A.30 (e), as applicable.

B. Decision No 2003/19/RM, Annex III (GM to Part-145), is hereby amended as follows:

4. The title of point GM 145.A.30 (e) is amended as follows:

GM 1 145.A.30 (e) – Personnel requirements (Training syllabus for initial human factors training)

...

5. Two new GMs (GM 2 145.A.30 (e) and GM 3 145.A.30 (e)) are added:

GM 2 145.A.30 (e) – Competence assessment procedure

The organisation should develop a procedure describing the process of competence assessment of personnel. The procedure should specify:

- persons responsible for this process,
- when the assessment should take place,
- credits from previous assessments,
- validation of qualification records,
- means and methods for the initial assessment,

- means and methods for the continuous control of competence including feedback on personnel performance,
- competences to be observed during the assessment in relation with each job function,
- actions to be taken when assessment is not satisfactory,
- recording of assessment results.

For example, according to the job functions and the scope, size and complexity of the organisation, the assessment may consider the following (the table is not exhaustive):

	Managers	Planners	Supervisor	Certifying staff and support staff	Mechanics	Specialised Service staff	Quality audit staff
Knowledge of applicable officially recognised standards						X	X
Knowledge of auditing techniques: planning, conducting and reporting							X
Knowledge of human factors, human performance and limitations	X	X	X	X	X	X	X
Knowledge of logistics processes	X	X	X				
Knowledge of organisation capabilities, privileges and limitations	X	X	X	X		X	X
Knowledge of Part-M, Part-145 and any other relevant regulations	X	X	X	X			X
Knowledge of relevant parts of the maintenance organisation exposition and procedures	X	X	X	X	X	X	X
Knowledge of occurrence reporting system and understanding of the importance of reporting occurrences, incorrect maintenance data and existing or potential defects		X	X	X	X	X	
Knowledge of safety risks linked to the working environment	X	X	X	X	X	X	X
Knowledge on CDCCL when relevant	X	X	X	X	X	X	X
Knowledge on EWIS when relevant	X	X	X	X	X	X	X
Understanding of professional integrity, behaviour and attitude towards safety	X	X	X	X	X	X	X
Understanding of conditions for ensuring continuing airworthiness of aircraft and components				X			X
Understanding of his/her own human performance and limitations	X	X	X	X	X	X	X
Understanding of personnel authorisations and limitations	X	X	X	X	X	X	X
Understanding critical task		X	X	X	X		X
Ability to compile and control completed work cards		X	X	X			

	Managers	Planners	Supervisor	Certifying staff and support staff	Mechanics	Specialised service staff	Quality audit staff
Ability to consider human performance and limitations.	X	X	X	X			X
Ability to determine required qualifications for task performance		X	X	X			
Ability to identify and rectify existing and potential unsafe conditions			X	X	X	X	X
Ability to manage third parties involved in maintenance activity		X	X				
Ability to confirm proper accomplishment of maintenance tasks			X	X	X	X	
Ability to identify and properly plan performance of critical task		X	X	X			
Ability to prioritise tasks and report discrepancies		X	X	X	X		
Ability to process the work requested by the operator		X	X	X			
Ability to promote the safety and quality policy	X		X				
Ability to properly process removed, uninstalled and rejected parts			X	X	X	X	
Ability to properly record and sign for work accomplished			X	X	X	X	
Ability to recognise the acceptability of parts to be installed prior to fitment				X	X		
Ability to split complex maintenance tasks into clear stages		X					
Ability to understand work orders, work cards and refer to and use applicable maintenance data		X	X	X	X	X	X
Ability to use information systems	X	X	X	X	X	X	X
Ability to use, control and be familiar with required tooling and/or equipment			X	X	X	X	
Adequate communication and literacy skills	X	X	X	X	X	X	X
Analytical and proven auditing skills (for example, objectivity, fairness, open-mindedness, determination, ...)							X
Maintenance error investigation skills							X
Resources management and production planning skills	X	X	X				
Teamwork, decision-making and leadership skills	X		X				

GM 3 145.A.30 (e) – Template for recording experience/training

The following template may be used to record the professional experience gained in an organisation and the training received and be considered during the competence assessment of the individual in another organisation.

Aviation Maintenance personnel experience credential		
Name <input type="text"/>		Given name <input type="text"/>
Address <input type="text"/>		
Telephone <input type="text"/>		E-mail <input type="text"/>
Independent worker <input type="checkbox"/>		
Trade Group: airframe <input type="checkbox"/> engine <input type="checkbox"/> electric <input type="checkbox"/> avionics <input type="checkbox"/> other (specify) <input type="text"/>		
Employer's details (when applicable)		
Name <input type="text"/>		
Address <input type="text"/>		
Telephone <input type="text"/>		
Maintenance organisation details		
Name <input type="text"/>		
Address <input type="text"/>		
Telephone <input type="text"/>		
Approval Number <input type="text"/>		
Period of employment <input type="text"/>	From: <input type="text"/>	To: <input type="text"/>
Domain of employment		
<input type="checkbox"/> Planning	<input type="checkbox"/> Engineering	<input type="checkbox"/> Technical records
<input type="checkbox"/> Store department	<input type="checkbox"/> Purchasing	
Mechanics/Technician		
<input type="checkbox"/> Line Maintenance	<input type="checkbox"/> Base Maintenance	<input type="checkbox"/> Component Maintenance
<input type="checkbox"/> Servicing	<input type="checkbox"/> Removal/installation	<input type="checkbox"/> Testing/inspection
<input type="checkbox"/> Scheduled Maintenance	<input type="checkbox"/> Inspection	<input type="checkbox"/> Repair
<input type="checkbox"/> Trouble-shooting	<input type="checkbox"/> Trouble-shooting	<input type="checkbox"/> Overhaul
	<input type="checkbox"/> Repair	<input type="checkbox"/> Re-treatment
		<input type="checkbox"/> Reassembly
A/C type <input type="text"/>	A/C type <input type="text"/>	Component type <input type="text"/>
Certifying Staff and support staff		
<input type="checkbox"/> Cat. A	<input type="checkbox"/> Cat. B1	<input type="checkbox"/> Cat. B2
<input type="checkbox"/> Cat. C	<input type="checkbox"/> Component	<input type="checkbox"/> Other (e.g NDT)
A/C Type <input type="text"/>	A/C Type <input type="text"/>	A/C Type <input type="text"/>
	Component Type <input type="text"/>	Specify <input type="text"/>
Certification privileges: Yes <input type="checkbox"/> / No <input type="checkbox"/>		
<input type="checkbox"/> Specialised services	Speciality (<i>NDT, composites, welding, etc.</i>): <input type="text"/>	
<input type="checkbox"/> Skilled personnel	Speciality (<i>sheet metal, structures, wireman, upholstery, etc.</i>): <input type="text"/>	
<input type="checkbox"/> Ground equipment operation		
<input type="checkbox"/> Quality control	<input type="checkbox"/> Quality assurance	<input type="checkbox"/> Training
Total number of check boxes ticked: <input type="text"/>		

Details of employment

Training received from the contracting organisation

Date Nature of training

Certified
by:

Name:

Date:

Position:

Signature:

Contact details:

Advisory note: A copy of the present credential will be kept for at least 3 years from its issuance by the maintenance organisation.