



European Union Aviation Safety Agency

# Notice of Proposed Amendment 2023-10 (B)

in accordance with Article 6 of MB Decision 01-2022

---

## NPA 2023-10 (B) — PROPOSED REGULATORY MATERIAL



## Table of contents

<b>PROPOSED AMENDMENTS .....</b>	<b>7</b>
<b>ANNEX IV (PART-147) .....</b>	<b>8</b>
<b>GENERAL .....</b>	<b>8</b>
147.1 Competent authority .....	8
AMC 147.1 .....	8
<b>SECTION A — TECHNICAL REQUIREMENTS .....</b>	<b>9</b>
<b>SUBPART A — GENERAL .....</b>	<b>9</b>
147.A.05 Scope .....	9
147.A.10 General .....	9
GM to 147.A.10 General .....	9
147.A.15 Application for an organisation certificate .....	9
AMC1 147.A.15 Application for an organisation certificate .....	10
AMC2 147.A.15 Application for an organisation certificate .....	10
147.A.20 Terms of approval and scope of work .....	10
147.A.25 Subcontracting .....	10
GM1 147.A.25 Subcontracting .....	11
GM2 147.A.25 Subcontracting .....	11
<b>SUBPART B — ORGANISATIONAL REQUIREMENTS .....</b>	<b>11</b>
147.A.100 Facility requirements .....	11
AMC1 147.A.100(ih) Facility requirements .....	12
GM1 147.A.100(ih) Facility requirements .....	13
147.A.105 Personnel requirements .....	13
AMC1 147.A.105 Personnel requirements .....	15
AMC1 147.A.105(a) Personnel requirements .....	16
AMC1 147.A.105(b);(c) Personnel requirements .....	16
GM to 147.A.105(c) Personnel requirements .....	18
AMC1 147.A.105(e) Personnel requirements .....	18
AMC1 147.A.105(f) Personnel requirements .....	19
AMC2 147.A.105(i) Personnel requirements .....	21
AMC3 147.A.105(i) Personnel requirements .....	21
AMC3 147.A.105(i) Personnel requirements .....	23
AMC4 147.A.105(i) Personnel requirements .....	23
AMC5 147.A.105(i) Personnel requirements .....	24
GM1 147.A.105(i) Personnel requirements .....	24
GM1 147.A.105(f) Personnel requirements .....	26
GM to 147.A.105(g) Personnel requirements .....	27
AMC 147.A.105(h) Personnel requirements .....	27
GM to 147.A.105(h) Personnel requirements .....	27
147.A.110 Management system Records of instructors, examiners and assessors .....	27
AMC 147.A.110 Records of instructors, examiners and assessors .....	28
GM1 to 147.A.110 Management system Records of instructors, examiners and assessors .....	29
AMC1 147.A.110(a)(2) Management system .....	29
AMC1 147.A.110(a)(5) Management system .....	29
AMC2 147.A.110(a)(5) Management system .....	30
AMC3 147.A.110(a)(5) Management system .....	31
AMC4 147.A.110(a)(5) Management system .....	32
GM1 147.A.110(a)(5) Management system .....	32
GM2 147.A.110(a)(5) Management system .....	34



147.A.115 Instructional equipment .....	36
GM1 147.A.115(a);(d) Instructional equipment .....	36
AMC1 147.A.115(c);(d) Instructional equipment .....	37
147.A.120 Maintenance training material .....	37
AMC1 147.A.120(a) Maintenance training material .....	37
147.A.125 Records-keeping .....	38
AMC1 147.A.125 Record-keeping .....	39
AMC2 147.A.125 Record-keeping .....	40
147.A.130 Training procedures and quality system .....	41
AMC1 147.A.130(a) Training procedures and quality system .....	41
AMC 147.A.130(b) Training procedures and quality system .....	45
GM to 147.A.130(b) Training procedures and quality system .....	45
AMC1 147.A.130 Training procedures .....	46
GM1 147.A.130 Training procedures .....	46
AMC1 147.A.130(b)(1) Training procedures .....	47
147.A.132 Performance of training activities .....	48
AMC1 147.A.132(c)(2) Performance of training activities .....	50
AMC2 147.A.132(c)(2) Performance of training activities .....	54
AMC1 147.A.132(c)(3) Performance of training activities .....	54
AMC1 147.A.132(c)(4) Performance of training activities .....	55
AMC1 147.A.132(c)(5) Performance of training activities .....	55
AMC1 147.A.132(c)(6) Performance of training activities .....	55
AMC1 147.A.132(c)(7) Performance of training activities .....	55
AMC1 147.A.132(d) Performance of training activities .....	56
AMC1 147.A.132(d)(1)(3) Performance of training activities .....	56
147.A.135 Examinations process .....	57
AMC1 147.A.135(a) Examinations process .....	58
AMC2 147.A.135(a) Examination process .....	59
AMC1 147.A.135(b) Examination process .....	62
AMC1 147.A.135(c) Examination process .....	62
AMC1 147.A.135(c)(3) Examination process .....	62
AMC1 147.A.135(j) Examination process .....	63
GM to 147.A.135 Examinations .....	64
147.A.140 Maintenance training organisation exposition (MTOE) .....	64
AMC1 147.A.140 Maintenance training organisation exposition .....	66
GM1 147.A.140 Maintenance training organisation exposition .....	66
AMC1 147.A.140(a) Maintenance training organisation exposition .....	67
AMC1 147.A.140(a)(1) Maintenance training organisation exposition .....	68
147.A.145 Privileges of the maintenance training organisation .....	69
GM1 147.A.145(a)(1)(ii) Privileges of the organisation .....	72
AMC1 147.A.145(a)(3) Privileges of the organisation .....	72
AMC1 147.A.145(e) Distance learning via uniform resource locator (URL) addresses .....	75
AMC 147.A.145(d) Privileges of the maintenance training organisation .....	75
GM 147.A.145(d) Privileges of the maintenance training organisation .....	76
GM 147.A.145(d)3 Privileges of the maintenance training organisation .....	76
AMC 147.A.145(f) Privileges of the maintenance training organisation .....	76
147.A.150 Changes to the maintenance training organisation .....	77
AMC1 147.A.150 Changes to the organisation .....	78
GM1 145.A.150 Changes to the organisation .....	78
GM1 145.A.150(a)(1) Changes to the organisation .....	78
GM1 145.A.85(a)(2) Changes to the organisation .....	79



GM1 145.A.85(b) Changes to the organisation .....	79
147.A.155 Continued validity.....	79
147.A.160 Findings and observations .....	80
AMC1 147.A.160 Findings and observations .....	80
AMC2 147.A.160 Findings and observations .....	81
GM1 147.A.160 Findings and observations .....	81
147.A.170 Access .....	81
147.A.180 Means of compliance .....	82
GM1 147.A.180 Means of compliance .....	82
GM2 147.A.180 Means of compliance .....	83
AMC1 147.A.180(b) Means of compliance .....	83
<b>SUBPART C — APPROVED BASIC TRAINING COURSE.....</b>	<b>84</b>
147.A.200 The approved basic training course .....	84
AMC1 147.A.200(ba) The approved basic training course .....	85
AMC1 147.A.200(de) The approved basic training course .....	85
AMC1 147.A.200(f) The approved basic training course .....	85
AMC1 147.A.200(g) The approved basic training course .....	86
147.A.205 Basic knowledge theoretical examinations.....	86
AMC 147.A.205 Basic knowledge examinations.....	87
147.A.210 Basic knowledge practical assessment.....	87
AMC 147.A.210(a) Basic practical assessment .....	87
AMC1 147.A.210(bc) Basic practical assessment .....	87
<b>SUBPART D — AIRCRAFT TYPE/TASK TRAINING .....</b>	<b>88</b>
147.A.300 Aircraft type/task training .....	88
AMC1 147.A.300 Aircraft type/task training .....	88
147.A.305 Aircraft type examinations and task assessments .....	89
<b>SUBPART E — AIRCRAFT TYPE EVALUATION.....</b>	<b>90</b>
147.A.400 Aircraft type evaluation.....	90
<b>SUBPART F — AIRCRAFT TASK TRAINING .....</b>	<b>91</b>
147.A.500 Aircraft task training.....	91
<b>SECTION B — PROCEDURES FOR COMPETENT AUTHORITIES .....</b>	<b>92</b>
<b>SUBPART A — GENERAL .....</b>	<b>92</b>
147.B.05 Scope .....	92
147.B.10 Competent Authority.....	92
AMC 147.B.10(a) Competent authority .....	92
AMC1 147.B.10(b) Competent authority.....	93
AMC 147.B.10(c) Competent authority .....	93
147.B.20 Record-keeping.....	94
AMC 147.B.20 Record-keeping .....	94
147.B.25 Exemptions .....	95
<b>SUBPART B — ISSUE OF AN APPROVAL .....</b>	<b>96</b>
147.B.110 Procedure for approval and changes to the approval.....	96
GM to 147.B.110 Procedure for approval and changes to the approval.....	96
AMC 147.B.110(a) Procedure for approval and changes to the approval.....	98
AMC 147.B.110(b) Procedure for approval and changes to the approval .....	98
147.B.120 Continued validity procedure .....	98
AMC 147.B.120(a) Continued validity procedure .....	98
147.B.125 Maintenance training organisation approval certificate.....	99
147.B.130 Findings.....	99
AMC 147.B.130(b) Findings .....	99



<b>SUBPART C — REVOCATION, SUSPENSION AND LIMITATION OF THE MAINTENANCE TRAINING ORGANISATION APPROVAL</b> .....	<b>100</b>
147.B.200 Revocation, suspension and limitation of the maintenance training organisation approval.....	100
<b>SECTION B — AUTHORITY REQUIREMENTS</b> .....	<b>101</b>
147.B.005 Scope.....	101
147.B.115 Oversight documentation.....	101
147.B.120 Means of compliance.....	101
GM1 147.B.120 Means of compliance.....	101
AMC1 147.B.120(b);(c) Means of compliance.....	102
GM1 147.B.120(b);(c) Means of Compliance.....	102
147.B.125 Information to the Agency.....	103
AMC1 147.B.125 Information to the Agency.....	103
147.B.135 Immediate reaction to a safety problem.....	103
147.B.200 Management system.....	103
AMC1 147.B.200 Management system.....	104
AMC2 147.B.200 Management system.....	105
AMC1 147.B.200(a)(1) Management system.....	106
GM1 147.B.200(a)(2) Management system.....	107
AMC1 147.B.200(a)(3) Management system.....	109
AMC2 147.B.200(a)(3) Management system.....	109
AMC3 147.B.200(a)(3) Management system.....	110
AMC1 147.B.200(a)(5) Management system.....	111
GM1 147.B.200(a)(5) Management system.....	112
AMC1 147.B.200(d) Management system.....	113
147.B.205 Allocation of tasks to qualified entities.....	114
GM1 147.B.205 Allocation of tasks to qualified entities.....	114
147.B.210 Changes in the management system.....	114
147.B.220 Record-keeping.....	115
AMC1 147.B.220(a) Record-keeping.....	116
AMC1 147.B.220(a)(1) Record-keeping.....	116
147.B.300 Oversight principles.....	117
AMC1 147.B.300(a);(b);(c) Oversight principles.....	117
AMC1 147.B.300(f) Oversight principles.....	118
147.B.305 Oversight programme.....	119
AMC1 147.B.305(a);(b) Oversight programme.....	120
AMC1 147.B.305(b) Oversight programme.....	120
AMC2 147.B.305(b) Oversight programme.....	120
AMC1 147.B.305(b)(1) Oversight programme.....	121
AMC1 147.B.305(c) Oversight programme.....	121
AMC2 147.B.305(c) Oversight programme.....	121
GM1 147.B.305(c) Oversight programme.....	122
AMC1 147.B.305(d) Oversight programme.....	122
GM1 147.B.305(d)(2) Oversight programme.....	123
147.B.310 Initial certification procedure.....	123
AMC1 147.B.310 Initial certification procedure.....	124
AMC1 147.B.310(a) Initial certification procedure.....	124
AMC1 147.B.310(c) Initial certification procedure.....	125
AMC2 147.B.310(c) Initial certification procedure.....	125
AMC1 147.B.310(d) Initial certification procedure.....	125
147.B.330 Changes — organisations.....	125



AMC1 147.B.330 Changes — organisations	126
GM1 147.B.330 Changes — organisations	126
AMC1 147.B.330(e) Changes — organisations	127
147.B.350 Findings and corrective actions; observations	127
GM1 147.B.350(f) Findings and corrective actions; observations	129
147.B.355 Suspension, limitation, and revocation	129
<b>APPENDICES TO ANNEX IV (PART-147)</b>	<b>130</b>
Appendix I to Annex IV — 147.A.200 Basic training course duration	130
Appendix II to Annex IV — 147.B.310 Initial certification procedure Maintenance Training Organisation Approval — EASA Form 11	131
AMC1 to Appendix II to Annex IV — 147.B.310 Initial certification procedure to Part 147 — Maintenance Training Organisation Approval referred to in Annex IV (Part 147)	133
Appendix III to Annex IV — 147.A.145 Privileges of the organisation Certificates of Recognition referred to in Annex IV (Part 147) — EASA Forms 148 and 149	134
Appendix IV to Annex IV — 147.A.20 Terms of approval and scope of work	146
GM1 Appendix IV to Annex IV — 147.A.20 Terms of approval and scope of work	149
<b>APPENDICES TO AMC TO ANNEX IV (PART-147)</b>	<b>153</b>
Appendix I — Maintenance training organisation exposition (MTOE)	153
Appendix II — EASA Form 4	155
Appendix III to AMC to Annex IV — AMC2 145.B.310(c) Initial certification procedure EASA Form 22	156
Appendix IV to AMC to Annex IV — AMC1 147.A.15 Application for an organisation certificate EASA Form 12	163



## PROPOSED AMENDMENTS

The amendment(s) is (are) arranged as follows to show deleted, new, and unchanged:

- deleted text is ~~struck through~~;
- new text is highlighted in **blue**;
- an ellipsis '[...]' indicates that the rest of the text is unchanged.



# ANNEX IV (PART-147)

## GENERAL

### 147.1 Competent authority

For the purpose of this ~~Part~~ Annex, the competent authority shall be:

- ~~1. (a) for the organisations having their principle place of business located in the territory of a Member State, the authority designated by that Member State;~~

for organisations that have their principal place of business in a territory for which a Member State is responsible under the Convention on International Civil Aviation, signed in Chicago on 7 December 1944 ('the Chicago Convention'), the authority designated by that Member State, or by another Member State in accordance with Article 64 of Regulation (EU) 2018/1139, or the Agency if the responsibility has been reallocated to the Agency in accordance with Articles 64 or 65 of Regulation (EU) 2018/1139; or

- ~~2. (b) for the organisations having their principle place of business located in a third country, the Agency.~~

for organisations that have their principal place of business outside a territory for which a Member State is responsible under the Chicago Convention, the Agency.

### AMC 147.1

~~A competent authority may be a ministry, a national aviation authority, or any aviation body designated by the Member State and located within that Member State. A Member State may designate more than one competent authority to cover different areas of responsibility, as long as the designation decision contains a list of the competencies of each authority and there is only one competent authority responsible for each given area.~~





## SECTION A — TECHNICAL REQUIREMENTS

### SUBPART A — GENERAL

#### 147.A.05 Scope

This section establishes the requirements to be met by **an organisation** ~~organisations seeking approval to conduct training and examination as~~ to qualify for the issue or continuation of an approval certificate for conducting training activities in support of issuance of an aircraft maintenance licence (AML) specified in Annex III (Part-66).

#### ~~147.A.10 General~~

~~A training organisation shall be an organisation or part of an organisation registered as a legal entity.~~

#### ~~GM to 147.A.10 General~~

~~Such an organisation may conduct business from more than one address and may hold more than one Part approval.~~

#### 147.A.15 Application for an organisation certificate

- (a) ~~An application for an approval or for the change of an existing approval shall be made on a form and in a manner established by the competent authority.~~ **An application for a certificate or an amendment to an existing certificate in accordance with this Annex shall be made in a form and manner established by the competent authority, taking into account the applicable requirements of this Annex.**
- (b) ~~An application~~ **Applicants** for an **initial certificate pursuant to this Annex shall provide the competent authority with the following information, as applicable:** ~~approval or change to an approval shall include the following information:~~
1. the registered name and address of the applicant **including the principal place of business;**
  2. ~~the address of the organisation requiring the approval or change to the approval~~ **the locations in which the organisation performs its activities;**
  3. the ~~intended~~ **requested** scope of work ~~or change to the scope of approval;~~
  4. the name and signature of the accountable manager;
  5. the date of application;
  6. **the results of a pre-audit performed by the organisation against the applicable requirements established in this Annex;**



7. documentation demonstrating how they will comply with the requirements established in this Regulation.

## AMC1 147.A.15 Application for an organisation certificate

~~The application form should contain the information required in the EASA Form 12.~~

An application should be made on an EASA Form 12 (refer to Appendix IV) or an equivalent form that is acceptable to the competent authority.

## AMC2 147.A.15 Application for an organisation certificate

### GENERAL

- (a) Draft documents should be submitted at the earliest opportunity so that the assessment of the application can begin. The initial certification or approval of changes cannot take place until the competent authority has received the completed documents.
- (b) This information, including the results of the pre-audit specified in point 147.A.15(b)(6), will enable the competent authority to conduct its assessment in order to determine the volume of certification and oversight work that is necessary, and the locations where it will be carried out.
- (c) The intent of the internal pre-audit referred to in point 147.A.15(b)(6) is to ensure that the organisation has internally verified its compliance with the Regulation. This should allow the organisation to demonstrate to the competent authority the extent to which the applicable requirements are complied with, and to provide assurance that the organisation management system (including the compliance monitoring system) is established to a level that is sufficient to perform maintenance activities.

## 147.A.20 Terms of approval and scope of work

- (a) The organisation's scope of work shall be specified in the maintenance training organisation exposition in accordance with point 147.A.140.
- (b) The organisation shall comply with the terms of approval attached to the organisation certificate issued by the competent authority, and with the scope of work specified in the maintenance training organisation exposition.

## 147.A.25 Subcontracting

- (a) The organisation shall ensure that when subcontracting any part of its training activities:
  - (1) training activities conform to the applicable requirements;
  - (2) any hazard associated with such subcontracting is considered as part of the organisation's management system.



- (b) If the organisation subcontracts any part of its training activities to another organisation, the subcontracted organisation shall work under the scope of work of the subcontracting organisation.

## GM1 147.A.25 Subcontracting

### RESPONSIBILITY WHEN SUBCONTRACTING TRAINING ACTIVITIES

- (a) Regardless of the approval status of the subcontracted organisation(s), a Part-147 organisation is responsible for ensuring that all subcontracted activities are subject to compliance monitoring as required by point 147.A.110(a)(5).
- (b) The Part-147 organisation is responsible for identifying hazards that may stem from the existence of complex training arrangements (such as when multiple organisations are subcontracted, or when multiple levels of subcontracting are included) with due regard to the organisations' interfaces. In addition, the compliance monitoring function should at least check that the approval(s) of the subcontracted maintenance training organisation(s) effectively covers the subcontracted activities, and that it is still valid.

## GM2 147.A.25 Subcontracting

### MEANING OF 'SUBCONTRACTING TRAINING ACTIVITIES'

'Subcontracting training activities' means subcontracting to a third party under the training organisation system.

This is the case when a third party carries out certain training tasks on behalf of the Part-147 organisation, and the responsibility remains with the Part-147 organisation (this Part-147 organisation must have the tasks within its scope of work). Whether the third party is approved or not is not relevant for the designation of subcontracting, since the third party will be working under the system of the Part-147 organisation, and the certificate will be issued under the approval of this organisation.

## SUBPART B — ORGANISATIONAL REQUIREMENTS

### 147.A.100 Facility requirements

- (a) The size and structure of facilities shall ensure protection from the prevailing weather elements, appropriate environmental conditions, and proper operation of all planned training activities at all times ~~and examination on any particular day.~~
- (b) Fully enclosed, appropriate accommodation, separate from other facilities, shall be provided for the delivery of the theoretical training element ~~and the conduct of knowledge examinations.~~
- ~~(c) The point (b) accommodation environment shall be maintained such that students are able to concentrate on their studies or examination as appropriate, without undue distraction or discomfort.~~



- (~~dc~~) ~~In the case of a basic training course, basic training w~~Workshops and/or maintenance facilities separate from training classrooms shall be provided for ~~the~~ practical ~~training element instruction~~ appropriate to the planned training course. ~~If, however, the organisation is unable to provide such facilities, arrangements may be made with another organisation to provide such workshops and/or maintenance facilities, in which case a written agreement shall be made with such organisation specifying the conditions of access and use thereof. The competent authority shall require access to any such contracted organisation and the written agreement shall specify this access.~~
- (~~ed~~) ~~In the case of an~~ For aircraft type ~~training or /aircraft~~ task training ~~course~~, ~~the organisation shall ensure that~~ access shall be provided to appropriate facilities containing examples of aircraft type as specified in point 147.A.115(d).
- (~~fe~~) The maximum number of students undergoing practical training during any training course shall not exceed 15 per instructor or assessor.
- (~~gf~~) Office accommodation shall be provided for instructors, ~~knowledge~~ examiners and ~~practical~~ assessors of a standard to ensure that they can prepare for their duties without undue distraction or discomfort.
- (~~hg~~) Secure storage facilities shall be provided for examination and training records. The storage environment shall be such that documents remain in good condition for the retention period as specified in point 147.A.125. The storage facilities and office accommodation may be combined, subject to adequate security.
- (~~ih~~) A library shall be provided containing all technical material appropriate to the scope and level of ~~the~~ training ~~undertaken~~.
- (~~ji~~) By derogation from points (a) to (~~dc~~) and (~~fe~~), in the case of distance learning performed at a location where the organisation approved under this Annex has no control over the environment where the student is located, the organisation approved under this Annex shall brief the student and raise their awareness regarding the suitability of their learning location. This derogation applies only to ~~the training element~~ ~~distance learning~~ and not to the corresponding examination and/or assessment ~~element~~.

## AMC1 147.A.100(~~ih~~) Facility requirements

~~For approved basic maintenance training courses~~ **BASIC KNOWLEDGE TRAINING MATERIAL**

- ~~It means holding and ensuring~~ The organisation should hold, and ensure reasonable access to, copies of all relevant EU regulations and the Member States' national aviation legislation, examples of typical aircraft maintenance manuals and service bulletins, airworthiness directives, aircraft and components records, release documentation, procedures manuals and aircraft maintenance programmes.
- Except for the relevant EU regulations and the Member States' national aviation regulations, ~~the remainder of~~ the documentation should represent typical examples ~~for both large and small of all types of~~ aircraft ~~and cover both aeroplanes and helicopters~~ as appropriate ~~to the~~



organisation's approval. Avionics documentation should cover a representative range of available equipment. All documentation should be reviewed and updated on a regular basis.

## GM1 147.A.100(h) Facility requirements

Where the organisation has a library of regulations, manuals and documentation required by another EU regulation, it is not necessary to duplicate such a facility, subject to student access being under controlled supervision.

## 147.A.105 Personnel requirements

- (a) ~~The organisation shall appoint an accountable manager who has corporate authority for ensuring that all training commitments can be financed and carried out to the standard required by this Part.~~

The organisation shall appoint an accountable manager that has corporate authority to ensure that all training activities of the organisation can be financed and carried out in accordance with Regulation (EU) 2018/1139 and its delegated and implementing acts. The accountable manager shall:

1. ensure that all necessary resources are available to accomplish training in accordance with this Annex and Annex III (Part-66), as applicable, to support the organisation certificate;
2. establish and promote the management policy specified in point 147.A.110(a)(2);
3. demonstrate a basic understanding of this Regulation.

- (b) ~~A person or group of persons, whose responsibilities include ensuring that the maintenance training organisation is in compliance the requirements of this Part, shall be nominated. Such person(s) must be responsible to the accountable manager. The senior person or one person from the group of persons may also be the accountable manager subject to meeting the requirements for the accountable manager as defined in point (a).~~

The accountable manager shall nominate a person or group of persons representing the management structure for the training functions and with the responsibility to ensure that the organisation works in accordance with the exposition and approved procedures.

- (c) The accountable manager shall nominate a compliance manager with the responsibility to monitor the compliance of the organisation and ensure compliance of the management system of the organisation.
- (d) The persons nominated in accordance with points (b) and (c) shall have a responsibility and direct access to the accountable manager in order to properly inform on organisational and compliance matters. Such persons shall be included in the exposition and accepted by the competent authority. It shall be made clear in the procedures who deputises for a particular person in the case of lengthy absence of that person.



(e) The persons nominated in accordance with points (b) and (c) shall be able to demonstrate relevant knowledge, background, and satisfactory experience related to training activities and demonstrate a working knowledge of this Regulation.

(ef) The ~~maintenance training~~ organisation shall ensure it has ~~contract with~~ sufficient ~~staff~~ personnel to plan, perform, supervise, audit, and monitor ~~theoretical and practical training, conduct knowledge examinations and practical assessments~~ training activities in accordance with the terms of approval. In addition, the organisation shall have a procedure to reassess the work intended to be carried out when the actual personnel availability is reduced.

(dg) ~~By derogation to point (c), when another organisation is used to provide practical training and assessments, such other organisation's staff may be nominated to carry out practical training and assessments.~~

When external persons are used to provide training activities, the organisation shall ensure that the persons acting as the organisation's personnel meet the experience and qualification requirements of point (e) and (i), as applicable.

(eh) ~~Any person~~ Personnel involved in training activities may carry out any combination of the roles of instructor, examiner, and assessor, subject to compliance with point (fi).

(fi) ~~The experience and qualifications of instructors, knowledge examiners and practical assessors shall be established in accordance with criteria published or in accordance with a procedure and to a standard agreed by the competent authority.~~

The organisation shall establish, control, and assess the competency of the personnel involved in any training activities and compliance activities in accordance with a procedure and to a standard agreed with the competent authority. In addition to the necessary expertise related to the job function, the competency of the personnel shall include an understanding of the organisation's procedures, training principles and techniques, training methods and tools, language in which a particular training activity is carried out, as appropriate to their function and responsibilities in the organisation.

(gj) The organisation shall ensure that ~~knowledge~~ examiners and ~~practical~~ assessors ~~shall be~~ are specified in, or included in a register referred to in, the ~~maintenance training~~ organisation exposition for the acceptance of such staff.

(hk) ~~Instructors and knowledge examiners shall undergo updating training at least every 24 months relevant to current technology, practical skills, human factor and the latest training techniques appropriate to the knowledge being trained or examined.~~

The organisation shall ensure that training personnel receive sufficient recurrent training in each 2-year period to ensure that they have up-to-date knowledge of the latest relevant training technologies, subject matter knowledge, organisation procedures, including human factors issues, and to ensure that they have sufficient practical experience, as applicable.

(li) The organisation shall issue training personnel with a personnel authorisation which specifies the scope of the training activities, and the fact that such personnel may only carry out training activities within the limitations stated in such authorisation.

Such training authorisation shall be issued under the responsibility of the compliance manager referred to in point (c), after compliance with points (i), (j), and (k) has been ensured. The



authorisation shall remain valid subject to the organisation remaining in compliance with points (i), (j), and (k).

## AMC1 147.A.105 Personnel requirements

1. Any maintenance training organisation with the capacity to provide training, ~~examine, and/or assess~~ activities to 50 students or more at the same time, i.e. large organisation, should appoint a training manager with the responsibility of managing the ~~training~~ organisation's operations on a ~~day-to-day~~ daily basis. This ~~person could also be the~~ position may be combined with that of the accountable manager.

In addition, the organisation should appoint a ~~quality manager~~ person with the responsibility of ensuring compliance of the management system ~~managing the quality system~~ as specified in point 147.A.110~~30(b)~~, and an examination manager with the responsibility of managing the relevant Part-147 Subpart C, ~~or Subpart D, E, and F~~ examination ~~system~~ process. ~~This (these)~~ These person(s) may also ~~be an~~ hold the position of instructor and/or examiner.

In such a case where the person responsible for ensuring compliance carries out training activities, particularly examination or assessment, the organisation should ensure that for those training activities, the function of point 147.A.110 is carried out by an entity independent of the organisation, appropriately approved by the organisation to carry out such function on behalf of the person responsible for ensuring compliance.

2. Any maintenance training organisation with the capacity to provide training, ~~examine, and/or assess~~ activities to fewer than 50 students at the same time, i.e. small organisation, may combine any or all of the ~~subparagraph~~ point (1) positions subject to the competent authority verifying and being satisfied that all functions can be properly carried out in combination.

In such a case where the person responsible for ensuring compliance carries out training activities, particularly examination or assessment, the organisation should ensure that for those training activities, the function of point 147.A.110 is carried out by an entity independent of the organisation, appropriately approved by the organisation to carry out such function on behalf of the person responsible for ensuring compliance.

3. When the organisation is also approved against other Parts which contain some similar functions, then such functions may be combined ~~subject to the competent authority verifying and being satisfied that all functions can be properly carried out in combination.~~



## AMC1 147.A.105(a) Personnel requirements

### ACCOUNTABLE MANAGER

- (a) Accountable manager is normally intended to mean the chief executive officer of the organisation, who by virtue of the position held has overall (including and in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not necessarily required to be knowledgeable on technical matters, as the MTOE defines the training standards. When the accountable manager is not the chief executive officer, the organisation should demonstrate to the competent authority that the accountable manager has direct access to the chief executive officer and has the necessary funding allocation for the intended training activities.
- (b) Educational centres and other academic institutions may assign as accountable manager the holder of the position with responsibility for running the institution. When the accountable manager is not the holder of the position with responsibility for running the institution, the organisation should demonstrate to the competent authority that the accountable manager has direct access to the holder of the position with responsibility for running the institution and has the necessary funding allocation for the intended training activities.

## AMC1 147.A.105(b);(c) Personnel requirements

With the exception of the accountable manager, an EASA Form 4 should be completed for each person nominated to hold a position required by 147.A.105(b). An example of an EASA Form 4 is included in Appendix II to AMC.

### MANAGEMENT STRUCTURE

- (a) The persons nominated under points 147.A.105(b) and (c), with the responsibility to ensure that the organisation works in accordance with the MTOE and approved procedures should represent the management structure of the organisation and be responsible for the daily operation of the organisation.
- (b) Dependent upon the size of the organisation, the Part-147 training functions may be divided under nominated persons or combined in any number of ways. However, a training function cannot be combined with the compliance function.

The training functions include, but are not limited to, conducting training, examination, and assessment, providing training for the organisation's personnel, equipment and component procurement, facility management, etc., and it should be ensured that each Part-147 training function is attributed to a nominated person.

- (c) Dependent upon the extent of approval, the organisation structure should normally include a training manager, an examination manager, and a compliance manager, all of whom should report to the accountable manager except in a small Part-147 organisation where any one manager may also be the accountable manager, as determined by the competent authority.
- (1) The training manager is responsible for ensuring that training is delivered in accordance with the training material and TNA, and to the standards specified in Part-66 and in accordance with the organisation's procedures. The training manager is also responsible





for training-related corrective actions resulting from the compliance monitoring activities under point 147.A.110.

The training manager should ensure:

- (i) the development and security of a question and essay database;
- (ii) all the data used in the development of the training material is relevant and accurate;
- (iii) the training material and subsequent MCQs and essays are correct and appropriate;
- (iv) instructors are provided with sufficient and appropriate training.

- (2) The examination manager is responsible for ensuring that all examinations and assessments are carried out to the standards specified in Part-66 and in accordance with the organisation's procedures. The examination manager is also responsible for examination and assessment-related corrective actions resulting from the compliance monitoring activities under point 147.A.110.

The examination manager should ensure:

- (i) the selection of examination MCQs and essays and assessment subjects;
- (i) the security of the examination and assessment process, as referred to in point 147.A.135(a);
- (ii) all MCQs and essays are reviewed and accepted, prior to use;
- (iii) examiners and assessors are provided with sufficient and appropriate training.

- (3) The compliance manager is responsible for ensuring that the organisation is in compliance with the applicable requirements of this Regulation and any additional requirements as established by the organisation, and that all activities are carried out properly under the supervision of the nominated persons referred to in point 147.A.105(b).

The compliance manager should ensure that:

- (i) any training activity subcontracted to another maintenance training organisation is monitored for compliance with the contract/agreement;
- (ii) an audit plan is properly implemented, maintained, and continually reviewed and improved;
- (iii) corrections and corrective actions are requested as necessary and monitored for implementation and effectiveness;
- (iv) personnel involved in compliance activities are provided with sufficient and appropriate training.

- (d) Notwithstanding the examples of titles provided in point (c), the organisation may adopt any title for the foregoing managerial positions, but it should identify to the competent authority the titles and the persons chosen to carry out these functions through the MTOE.



- (e) Where an organisation chooses to appoint managers for all or any combination of the identified training functions due to the size of the undertaking, these managers should report to the accountable manager through the nominated persons.

### ~~GM to 147.A.105(c) Personnel requirements~~

~~The maintenance training organisation should have a nucleus of permanently employed staff to undertake the minimum amount of maintenance training proposed but may contract, on a part-time basis, instructors for subjects which are only taught on an occasional basis.~~

### AMC1 147.A.105(e) Personnel requirements

#### KNOWLEDGE, BACKGROUND AND EXPERIENCE OF NOMINATED PERSON(S)

- (a) The person or persons to be nominated in accordance with points (b) and (c) of point 147.A.105 should have:

- (1) practical experience and expertise in the aircraft maintenance activities and aircraft maintenance training activities;
- (2) knowledge of:
  - (i) human factors principles;
  - (ii) EU management system requirements and their application;
- (3) appropriate managerial expertise and experience, relevant to the scope of work of the organisation:
  - (i) 5 years of relevant managerial experience in a position relevant to the position held in the organisation;
  - (ii) in the case of organisations approved for aircraft type training or aircraft type evaluation, 2 years of the requirement in point (i) should be in the aeronautical industry in a position relevant to the position held in the organisation;
  - (iii) in the case of the person nominated in accordance with point 147.A.105(c), the 2 years requirement in point (ii) should be in an equivalent position (i.e. quality manager, compliance monitoring manager, safety manager);
- (4) a relevant engineering, technical degree, or academic degree, or an aircraft technician or maintenance engineer qualification with additional education that is acceptable to the competent authority;

'Relevant engineering or technical degree' means a degree for aeronautical, mechanical, electrical, electronic, avionics or other fields that are relevant to the maintenance and/or continuing airworthiness of aircraft/aircraft components;

'Relevant academic degree' means a university degree relevant to the scope of work of the organisation and is to be used only for the functions of training manager or examination manager exclusively in the case of academic institutions approved as Part-147 organisations for basic knowledge training. For instance, in the case of a secondary education institution approved for basic knowledge training, a faculty member with



relevant accreditations may be nominated as training and/or examination manager, subject to the completion of a specific training programme acceptable to the competent authority to gain an adequate understanding of training standards and continuing airworthiness concepts and principles.

For the person to be nominated in accordance with point 147.A.105(c), in the case where the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and that person already has an equivalent position (i.e. quality manager, compliance monitoring manager, safety manager) under the additional certificate(s) held, the provisions set out in the first two paragraphs of point (4) may be replaced by the completion of a specific training programme acceptable to the competent authority to gain an adequate understanding of training standards and continuing airworthiness concepts and principles;

- (5) knowledge of the relevant training methods and tools, and training technologies (and how they are applied in the organisation) and/or specific knowledge relevant to the area for which the person will be nominated;
- (6) thorough understanding of the responsibilities of the function, of their role within the organisation, and of the potential risks inherent to the activities of the organisation;
- (7) in the case of organisations approved for aircraft type training, aircraft type evaluation, or aircraft task training, knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses could be provided by a Part-147 organisation, by the manufacturer, by a Part-145 organisation or by any other organisation accepted by the competent authority. Aircraft/engine type training should be at least at a level equivalent to the Part-66 Appendix III Level 1 General Familiarisation; 'Relevant sample' means that these courses should cover typical aircraft that are within the scope of work of the organisation.

For all balloons and any other aircraft of 2 730 kg MTOM or less, the formalised training courses may be replaced by a demonstration of the required knowledge by providing documented evidence, or by an assessment acceptable to the competent authority. This assessment should be recorded;

- (8) proficiency (CEFR Level C1 or equivalent) in the language of the organisation, and of the training topic and materials, and adequate communication skills;
- (9) knowledge of the organisation's MTOE and procedures;
- (10) working knowledge of applicable regulations.

## AMC1 147.A.105(f) Personnel requirements

~~Any person currently accepted by the competent authority in accordance with the national aviation regulations in force prior to Part 147 coming into force may continue to be accepted in accordance with 147.A.105(f).~~

~~Paragraph 3 of Appendix III to AMC to Part 66 provides criteria to establish the qualification of assessors.~~



~~The instructors should be trained in the subject they deliver, including the appropriate training methods and tools, as applicable.~~

#### **REQUIREMENTS FOR TRAINING PERSONNEL**

(a) The qualifications and competencies of training personnel, i.e. instructors, examiners, and assessors, should be established in accordance with the following:

(1) General requirements

- (i) qualified to provide secondary education level training; or
- (ii) completed training of at least 30 hours in pedagogical or andragogical training; or
- (iii) equivalent qualification to points (i) or (ii), as assessed by the training manager or the examination manager of the organisation, as applicable, and accepted by the competent authority;
- (iv) general knowledge of Part-66 and Part-147;
- (v) professional integrity, responsible attitude, and ethical approach towards training activities.

(2) Specific requirements

- (i) working knowledge of training technologies applied within the organisation;
- (ii) working knowledge of training methods and tools described in AMC 147.A.130(a);
- (iii) proficiency (CEFR Level C1 or equivalent) in the language of the organisation, and of the training topic and materials;
- (iv) working knowledge of the organisation's procedures, as relevant to the function.

(3) Subject matter requirements

- (i) experience in developing a complete subject course; or
- (ii) academic system accreditation at a level relevant to the particular subject; or
- (iii) hold a valid AML relevant to the particular subject; or
- (iv) hold CofR(s) for the module(s) taught; or
- (v) hold CofR(s) for the aircraft type training(s) taught; or
- (vi) equivalent qualification to points (i) through (v), as assessed by the training manager or examination manager of the organisation, as applicable, and accepted by the competent authority.

(4) Experience requirements (applicable only to the practical element)

- (i) a minimum of 2 years' experience in the subject taught;
- (ii) relevant maintenance, engineering, or training experience in Part-145 or Part-21G organisations; or
- (iii) equivalent experience to point (ii), including experience gained in non-approved organisations, as assessed by the training manager or examination manager of the organisation, as applicable, and accepted by the competent authority



- (b) Paragraph 3 of Appendix III to AMC to Part-66 provides further criteria to establish the qualification of assessors.
- (c) Any person accepted by the competent authority prior to Part-147 entry into force may continue to be accepted in accordance with 147.A.105(j), unless otherwise decided by the competent authority.

## AMC2 147.A.105(i) Personnel requirements

### REQUIREMENTS FOR COMPLIANCE PERSONNEL

- (a) The qualifications and competencies of compliance personnel e.g. quality assurance engineers, quality auditors, quality specialists should include the same requirements as for training personnel, unless otherwise described in the MTOE and agreed with the competent authority.
- (b) In addition to those requirements, compliance personnel should also:
  - (1) meet the specific requirements under point (a)(2) of AMC1 147.A.105(i);
  - (2) have knowledge of auditing techniques, quality standards, and any other relevant standard or requirement applicable to the organisation.

## AMC3 147.A.105(i) Personnel requirements

### COMPETENCY ASSESSMENT OBJECTIVES

- (a) The procedure referred to in 147.A.105(i) should require amongst others that managers, theoretical element instructors, practical element instructors, examiners, assessors, QA personnel, whether employed or contracted, are assessed for competency before unsupervised work commences and that competency is controlled on a continuous basis.
- (b) Competency should be assessed by the evaluation of:
  - on-the-job performance and/or testing of knowledge by appropriately qualified personnel;
  - records for training and qualifications;
  - experience records, as applicable.

Validation of the above could include a confirmation check with the organisation(s) that issued the document(s).

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

- the scope of tasks this individual is authorised to perform and/or supervise (as applicable) or which level of ongoing supervision would be required;
  - whether there is a need for additional training.
- (c) A record should be kept of each individual's qualifications and competency assessment (refer also to point 147.A.110). This should include copies of all documents that attest to their qualifications, such as diplomas, certificates, attestations, licences, and any authorisations held, as applicable.



- (d) For a proper competency assessment of its personnel, the organisation should consider that:
- (1) in accordance with the job function, adequate initial and recurrent training has been received by the staff and recorded to ensure that continuous competency is maintained throughout the duration of the employment/contract;
  - (2) all staff should be able to demonstrate knowledge of, and compliance with, the organisation's procedures, as applicable to their duties;
  - (3) to assist in the assessment of competency 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 competency assessment;
  - (4) criteria should allow the assessment to establish, among other aspects, that (titles might be different in each organisation):
    - (i) managers are able to properly manage the work output, processes, resources, and priorities described in their assigned duties, accountabilities, and responsibilities in accordance with the organisation's procedures and objectives, and in compliance with the applicable requirements;
    - (ii) instructors have an understanding that they have a responsibility to maintain the accuracy of the information transposed into training material, and are able to:
      - interpret educational material (e.g. academic manuals and training material, studies and research papers, legislation and regulatory material), generic technical documentation (e.g. tools and equipment instructions, parts and material data sheets and instructions, industrial processes data), and specific technical documentation (e.g. maintenance, operational, and flight manuals, OSD, ADs, SBs, SLs);
      - develop such material into training courses and TNA, and generate MCQs and essays, as applicable, to establish the organisation's database, whilst maintaining compliance with Part-66 requirements;
      - deliver such training activities in accordance with, and to the standards established in, the procedures of the organisation and applicable requirements;
    - (iii) examiners have an understanding that they have a responsibility to ensure the security of the examination process and examination material, and are able to:
      - interpret educational material (e.g. academic manuals and training material, studies and research papers, legislation and regulatory material), generic technical documentation (e.g. tools and equipment instructions, parts and material data sheets and instructions, industrial processes data), and specific technical documentation e.g. maintenance, operational, and flight manuals, OSD, ADs, SBs, SLs;
      - analyse the training material of the organisation in order to validate the MCQs and essays;



- perform examinations in accordance with, and to the standards established in, the procedures of the organisation and applicable requirements;
- (iv) compliance personnel have an understanding that they have a responsibility to monitor and ensure continuous compliance with the applicable requirements of this Regulation and are able to effectively identify non-compliances and to assess corrections and corrective actions, and their effectiveness;
- (v) all staff are familiar with the MTOE and the management policy, and the procedures and tools that can be used for voluntary reporting;
- (vi) all staff have a thorough understanding of their role within the organisation and of the potential risks inherent to the activities of the organisation.

The competency assessment should be based upon the procedure specified in GM1 147.A.105(i).

## AMC3 147.A.105(i) Personnel requirements

### COMPETENCY ASSESSMENT PROCEDURE

- (a) The organisation should develop a procedure that describes the process for conducting competency assessments of personnel. The procedure should specify:
  - (1) the persons who are responsible for this process;
  - (2) when the assessments should take place;
  - (3) how to give credit from previous assessments;
  - (4) how to validate qualification records;
  - (5) the means and methods to be used for the initial assessment;
  - (6) the means and methods to be used for the continuous control of competency, including how to gather feedback on the performance of personnel;
  - (7) the aspects of competencies to be observed during the assessment in relation to each job function;
  - (8) the actions to be taken if the assessment is not satisfactory; and
  - (9) how to record the assessment results.
- (b) Competency may be assessed by having the person work under the supervision of another qualified person for a sufficient time to arrive at a conclusion. The person need not be assessed against the complete spectrum of their intended duties. If the person has been recruited from another approved maintenance training organisation, a written confirmation from the previous organisation could be taken into consideration to reduce the duration of the assessment.
- (c) All prospective staff should be assessed for their competency related to their intended duties.

## AMC4 147.A.105(i) Personnel requirements

### INITIAL AND RECURRENT TRAINING



- (a) Adequate initial and recurrent training should be provided in relation to the job function to ensure that staff remain competent. Completion of such training should be recorded.
- (b) Recurrent training should take into account the information reported through the voluntary reporting.
- (c) Compliance personnel should receive training on the requirements of compliance monitoring, auditing techniques, applicable quality standards, reporting, recording, and manuals and procedures related to the task.

## AMC5 147.A.105(i) Personnel requirements

Instructors using new training technologies (e.g. e-tutor, tele-tutor, tele-trainer) should be trained in using these technologies, as well as in the coaching, guiding and assisting of e-learning students. It is important that the instructor understands the electronically based distance-learning process, has the competence to remotely evaluate the learning behaviour of e-learning students and is able to proactively support their learning process.

The following structure provides an example of such an instructor training, as applicable:

- Changes and tendencies of today's training;
- Fundamentals of methodology and didactics;
- Basics and theory of e-learning and tele-tutoring;
- Communication in virtual environments;
- The changed role of students and instructors;
- Competence profile of a tele-tutor;
- Practical guide to support learning processes;
- Assessment of students' performance;
- The learning management system.

## GM1 147.A.105(i) Personnel requirements

### COMPETENCY ASSESSMENT ELEMENTS

The following non exhaustive table may be used in the determination of the elements required for competency assessment. It is expected that organisation will adapt competency assessment elements to the organisation's nature, scope of work, size, and complexity, and to the role and responsibilities of the category of personnel.

Whereas 'X' is used to indicate a requirement for a certain competency, 'X\*' is used to indicate a requirement of a lower level than that of the other categories of personnel for the respective competency.





	Managers	Training personnel			Compliance personnel
		Theoretical element instructors	Examiners	Practical element instructors	
Managerial expertise and leadership skills	X	-	-	-	-
Resources management and production planning skills	X	-	-	-	-
Knowledge of officially recognised standards	X*	-	-	-	X
Knowledge of auditing techniques, i.e. planning, conducting, and reporting	X*	-	-	-	X
Analytical and proven auditing skills, e.g. objectivity, fairness, open-mindedness, determination	-	-	-	-	X
Knowledge of training techniques, technologies, methods and tools	X*	X	X	X	X*
Knowledge of basic knowledge modules	X*	X	X	X	X*
Knowledge of, and expertise in, maintenance techniques	X*	X	X	X	X*
Knowledge of technical documentation, e.g. maintenance manuals, repair schemes, wiring diagrams, ADs, SBs	X*	X	X	X	X*
Knowledge of aircraft type(s)	X*	X	X	X	X*
Knowledge of human factors, human performance and limitations, and just culture	X	X*	X*	X*	X*
Knowledge of organisation capabilities, privileges and limitations	X	X*	X*	X*	X*
Knowledge of organisation MTOE, management policy and procedures	X	X	X	X	X
Knowledge of Part-147, Part-66, Part-145 and any other relevant regulations	X*	X*	X*	X*	X*
Knowledge of the language of the organisation, and of the training topic and materials	X	X	X	X	X*
Knowledge of the voluntary reporting procedure	X	X	X	X	X
Knowledge of potential risks inherent to the activities of the organisation	X	X*	X*	X*	X*
Understanding of professional integrity, behaviour and attitude towards training activities	X	X	X	X	X
Understanding of own human performance and limitations	X	X	X	X	X



	Managers	Training personnel				Compliance personnel
		Theoretical element instructors	Examiners	Practical element instructors	Assessors	
Understanding of personnel authorisations and limitations	X	X	X	X	X	X
Ability to consider human performance and limitations	X	X	X	X	X	X
Ability to identify and apply corrections and corrective actions	X*	-	-	-	-	X
Ability to effectively deliver information	X*	X	X*	X	X*	X*
Ability to assess knowledge and skills	X*	X*	X	X*	X	X*
Ability to use, control, and be familiar with the required tooling and/or equipment		X	X	X	X	X*
Ability to confirm proper accomplishment of training activities	X	X	X	X	X	X
Ability to prioritise tasks and report discrepancies	X	X	X	X	X	X
Ability to process the work requested	X	X	X	X	X	X
Ability to promote the management policy	X	-	-	-	-	X
Ability to encourage and apply a just culture	X	-	-	-	-	X
Ability to use information systems	X	X	X	X	X	X
Adequate communication and literacy skills	X	X	X	X	X	X
Teamwork and decision-making	X	X	X	X	X	X

## GM1-147.A.105(f) Personnel requirements

~~The instructor that uses new training technologies (e.g. e-tutor, tele-tutor, tele-trainer) should be trained in using these technologies, as well as in the coaching, guiding and assisting of e-learning students. It is important that the instructor understands the electronically based distance learning process, has the competence to remotely evaluate the learning behaviour of e-learning students and is able to proactively support their learning process.~~

~~The following structure provides an example of such an instructor training, as applicable:~~

- ~~— Changes and tendencies of today's training;~~
- ~~— Fundamentals of methodology and didactics;~~
- ~~— Basics and theory of e-learning and tele-tutoring;~~
- ~~— Communication in virtual environments;~~
- ~~— The changed role of students and instructors;~~



- ~~— Competence profile of a tele-tutor;~~
- ~~— Practical guide to support learning processes;~~
- ~~— Assessment of students' performance;~~
- ~~— The learning management system.~~

### ~~GM to 147.A.105(g) Personnel requirements~~

~~Examiners should demonstrate a clear understanding of the examination standard required by Part-66 and have a responsible attitude to the conduct of examinations such that the highest integrity is ensured.~~

### ~~AMC 147.A.105(h) Personnel requirements~~

~~Updating training should normally be of 35 hours duration but may be adjusted to the scope of training of the organisation and particular instructor/examiner.~~

### ~~GM to 147.A.105(h) Personnel requirements~~

- ~~1. Records should show for each instructor/examiner when the updating training was scheduled and when it took place.~~
- ~~2. The updating training may be subdivided during the 24 months into more than one element and may include such activities as attendance at relevant lectures and symposiums.~~

## 147.A.110 Management system Records of instructors, examiners and assessors

- ~~(a) The organisation shall maintain a record of all instructors, knowledge examiners and practical assessors. These records shall reflect the experience and qualification, training history and any subsequent training undertaken.~~
- ~~(b) Terms of reference shall be drawn up for all instructors, knowledge examiners and practical assessors.~~

- (a) The organisation shall establish and maintain a management system, including as a minimum:
  - (1) clearly defined accountability and lines of responsibility throughout the organisation, including a direct accountability of the accountable manager;
  - (2) a description of the overall philosophies and principles of the organisation with regard to management ('the management policy'), and the related objectives;
  - (3) maintaining personnel trained and competent to perform their tasks;
  - (4) documentation of all management system key processes, including a process for making personnel aware of their responsibilities and the procedure for amending that documentation;



- (5) a function to monitor the compliance of the organisation with the relevant requirements. Compliance monitoring shall include an independent auditing and a feedback system of findings to the accountable manager to ensure the effective implementation of corrective actions as necessary;
- (6) a reporting scheme to enable the collection of, evaluation of, and acting upon the voluntary or mandatory reports of fraudulent actions or any other violations of the organisation procedures undertaken within the training activities.
- (b) The management system shall correspond to the size of the organisation and the nature and complexity of its activities and shall ensure an effective delivery of training activities.
- (c) If the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139, the management system may be integrated with that required under the additional certificate(s) held, subject to the approval of the competent authority.

### **AMC 147.A.110 Records of instructors, examiners and assessors**

1. ~~The following minimum information relevant to the scope of activity should be kept on record in respect of each instructor, knowledge examiner and practical assessor:~~
- ~~(a) Name~~
  - ~~(b) Date of Birth~~
  - ~~(c) Personnel Number~~
  - ~~(d) Experience~~
  - ~~(e) Qualifications~~
  - ~~(f) Training history (before entry)~~
  - ~~(g) Subsequent Training~~
  - ~~(h) Scope of activity~~
  - ~~(i) Starting date of employment/contract~~
  - ~~(j) If appropriate ending date of employment/contract.~~
2. ~~The record may be kept in any format but should be under the control of the organisations quality system.~~
3. ~~Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.~~
4. ~~The competent authority is an authorised person when investigating the records system for initial and continued approval or when the competent authority has cause to doubt the competence of a particular person.~~



## **GM1 to 147.A.110 Management system ~~Records of instructors, examiners and assessors~~**

~~Instructors, knowledge examiners and practical assessors should be provided with a copy of their terms of reference.~~

The compliance monitoring function is one of the elements that is required to be in compliance with the applicable requirements. This means that the compliance monitoring function itself should be subject to independent monitoring of compliance in accordance with 147.A.110(a)(5).

### **AMC1 147.A.110(a)(2) Management system**

#### **MANAGEMENT POLICY AND OBJECTIVES**

- (a) The management policy should reflect organisational commitments to deliver qualitative training and ensure compliant and secure evaluation process.
- (b) The management policy should be approved by the accountable manager and periodically reviewed to ensure that it remains relevant and appropriate for the organisation.
- (c) The management policy should be communicated, with visible endorsement, throughout the organisation, and recognise the need for all personnel to cooperate in ensuring compliance.
- (d) The management policy should encourage ethical behaviour and promote just culture principles in relation to voluntary reporting referred to in point 147.A.110(a)(6).
- (e) The management policy should include a commitment to allocate the necessary resources for the delivery of training activities.
- (f) Management personnel should promote the management policy, supports its implementation, and provide a positive example for all personnel.
- (g) The organisation should develop management objectives, congruent with the management policy, to serve as the basis of performance monitoring and measurement.

### **AMC1 147.A.110(a)(5) Management system**

#### **COMPLIANCE MONITORING — GENERAL**

- (a) The primary objectives of compliance monitoring are to provide an independent monitoring function on how the organisation ensures compliance with the applicable requirements, policies, and procedures, and to request action where non-compliances are identified.
- (b) The independence of the compliance monitoring should be established by always ensuring that audits and inspections are carried out by personnel who are not responsible for the functions, procedures, or products that are audited or inspected.



## AMC2 147.A.110(a)(5) Management system

### COMPLIANCE MONITORING — INDEPENDENT AUDIT

- (a) An essential element of compliance monitoring is the independent audit.
- (b) The independent audit should be an objective process of routine sample checks of all aspects of the organisation's ability to carry out all maintenance to the standards required by this Regulation. It should include checking compliance of the organisation procedures with the Regulation, adherence of the organisation to these procedures, and product or maintenance sampling (i.e. product audit), as this is the end result of the training process.
- (c) The independent audit should provide an objective overview of the complete set of training activities. It should include a percentage of unannounced audits carried out on a sample basis while training is being carried out.
- (d) The organisation should establish an audit plan to show when and how often the activities as required by this Regulation will be audited. Where the organisation delivers training activities outside normal/declared operating hours, some audits should cover these special conditions.
- (e) Except as specified in point (h), the audit plan should ensure that all aspects of Part-147 compliance are verified every year, including all the subcontracted activities. The auditing may be carried out as a complete single exercise or subdivided over the annual period. The independent audit should not require each procedure to be verified against each training activity when it can be shown that the particular procedure is common to more than one training activities and the procedure has been verified every year without resultant findings. Where findings have been identified, compliance with the particular procedure should be verified against other training activities of the same nature until the findings have been closed, after which the independent audit procedure may revert to a yearly interval for the particular procedure.
- (f) Except as specified otherwise in point (h), the independent audit should sample check at least one training activity of each category in the scope of work every year as a demonstration of compliance with the training procedures and requirements associated with that specific activity. This should include in particular the verification of:
- the training data and compliance with the organisation procedures, including consideration of human factors issues;
  - the facility and maintenance environment;
  - the standard of training and evaluations;
  - the completion of documents;
  - the tools and materials;
  - the authorisation of the person carrying out training activities.

For the purpose of this AMC, a product line includes any product under an Appendix IV approval class rating as specified in the terms of approval issued to the particular organisation.



It therefore follows, for example, that a Part-147 maintenance training organisation approved to deliver basic training, aircraft type training, aircraft type evaluation, and aircraft task training would need to carry out at least four complete product audits each year, except as specified otherwise in points (f), (h) or (j).

- (g) The product audit includes witnessing any relevant training activity and inspecting the associated documentation.
- (h) When the organisation outsources the independent audit element of the compliance monitoring function in accordance with point (k), the audit should be carried out twice every year, with one such audit being unannounced.
- (i) When the organisation performs training activities in locations other than the ones identified in the certificate and the MTOE as per point 147.A.145(d), the compliance monitoring documentation should include a description of how such locations are integrated into the monitoring and include a plan to audit each listed location in a maximum period between audits that should not exceed 2 years.
- (j) A report should be issued each time an audit is carried out describing what was checked and the resulting non-compliance findings against applicable requirements and procedures.
- (k) Small organisations may subcontract the whole independent audit element of the compliance monitoring function to another organisation or contract a qualified and competent person to become responsible for this element, with the agreement of the competent authority.  
  
This does not prevent large organisations from occasionally using external support for conducting particular audits.
- (l) All records pertaining to the independent audit should be retained for the period specified in point 147.A.110(a)(2) or for such periods as to support changes to the audit planning cycle in accordance with AMC2 147.A.110(a)(5), whichever is the longer.

## AMC3 147.A.110(a)(5) Management system

### COMPLIANCE MONITORING — CONTRACTING OF THE INDEPENDENT AUDIT

- (a) If external personnel are used to perform independent audits:
  - (1) an audit should be carried out by the organisation to the prospective (sub)contractor to determine the eligibility of such (sub)contractor to perform the intended activities.  
  
The sub(contractor) audit should be performed at least once every year;
  - (2) any such audits should be performed under the responsibility of the compliance manager;
  - (2) the organisation remains responsible for ensuring that the external personnel have the relevant knowledge, background, and experience that are appropriate to the activities being audited, including knowledge and experience in compliance monitoring.
- (b) The organisation retains the ultimate responsibility for the effectiveness of the compliance monitoring function, in particular for the effective implementation and follow-up of all corrective actions.



**AMC4 147.A.110(a)(5) Management system****COMPLIANCE MONITORING — FEEDBACK SYSTEM**

- (a) Another essential element of compliance monitoring is the feedback system.
- (b) The feedback system should not be contracted to external persons or organisations.
- (c) When a non-compliance is found, the organisation should ensure that the root cause(s) and contributing factor(s) are identified (see GM1 147.A.160), and that corrective actions are defined. The feedback element of compliance monitoring should define who is required to address any non-compliance in each particular case, and the procedure to be followed if the corrective action is not completed within the defined time frame. The principal functions of the feedback system are ensuring that all findings resulting from the independent audits of the organisation are properly investigated and corrected in a timely manner, and enabling the accountable manager to be kept informed of relevant issues and the extent of compliance with Part-147.
- (d) The independent audit reports referred to in AMC2 147.A.110(a)(5) should be sent to the relevant department(s) for corrective action, giving target closure dates. These target dates should be discussed with the relevant department(s) before the compliance personnel confirms the dates in the report. The relevant department(s) is (are) required to implement the corrective action(s) and inform the compliance department of the status of the implementation of the action(s).
- (e) The accountable manager should hold regular meetings with staff to check the progress of corrective actions resultant from compliance monitoring. These meetings may be delegated to the compliance manager on a day-to-day basis, provided that the accountable manager:
  - (1) meets the senior staff involved at least twice per year to review the overall performance of the organisation; and
  - (2) receives at least a half-yearly summary report on non-compliance findings.
- (f) All records pertaining to the feedback system should be retained for the period specified in point 147.A.110(a)(2) or for such periods as to support changes to the audit planning cycle in accordance with AMC2 147.A.110(a)(5), whichever is the longer.

**GM1 147.A.110(a)(5) Management system****COMPLIANCE MONITORING — AUDIT PLAN**

- (a) The purpose of this GM is to provide guidance on one acceptable working audit plan to meet part of the needs of point 147.A.110(a)(5). There is any number of other acceptable working audit plans.
- (b) The audits described in the audit plan are intended to monitor compliance with the applicable requirements, and at the same time to review all areas of the organisation to which those requirements are applicable.





(c) In order to achieve this objective, as a first element, the organisation needs to identify all the regulatory requirements that are applicable to the activity and the scope of work under consideration, to allow the audit plan to focus on the relevant topics. Each topic (e.g. facilities, personnel, etc.) should be cross-referred with the relevant requirement and the related procedure of the organisation in the exposition that describes the particular topic. If the organisation follows a specific means of compliance to demonstrate compliance with the rule, that information may also be stated.

(d) As a second element, all the functional areas of the organisation in which Part-147 functions are intended to be carried out (i.e. the types of training activities), including subcontracting, need to be listed in order to identify the applicability of any topic to each functional area.

(e) A matrix can be used, as shown in the example below, to capture the two elements mentioned above. This matrix is intended to be a living document to be customised by each organisation depending on its scope of work and its structure. This matrix should represent the overall compliance of the audit system, and needs to be amended, as necessary, based upon any change to the applicable regulations, the procedures of the organisation or the functional areas of the organisation (e.g. a change in the scope of work to include aircraft type evaluation, etc.)

Example (to be further completed) of an audit matrix for an organisation involved in basic knowledge training activities that does not hold approval for aircraft type training:

Topic	Requirement	Exposition	Functional areas			
			Basic knowledge theoretical training	Compliance monitoring	Subcontracting	...
Facilities	147.A.100(a)	1.8	X	N/A	X	...
	...	...	...	...	...	...
Personnel	...	...	...	...	...	...
	147.A.105(c)	1.4	N/A	X	N/A	...
	147.A.105(f)	1.7	X	X	X	...
	...	...	...	...	...	...
...	...	...	...	...	...	...
Record-keeping	147.A.125	...	...	...	...	...
	...	...	...	...	...	...
...	...	...	...	...	...	...

(f) The audit plan can be presented as a simplified schedule (see below), showing the operational areas of the organisation (i.e. where the training activities are effectively carried out) against a timetable to indicate when each particular area was scheduled for audit and when the audit was completed. The audit plan should include a number of product audits (depending on the training activities), some of which should be unannounced (see AMC2 147.A.110(a)(5)).

Example (to be further completed) of an audit plan for an organisation, mentioned in point (e), that has several classrooms, and hydraulic and electrical workshops:

Operational area	Functional area	Planned	Completed	Remarks
Classroom 1	Basic knowledge theoretical training	mmm yyyy	dd mmm yyyy	
Classroom 2	Basic knowledge theoretical training	mmm yyyy	dd mmm yyyy	



Hydraulic workshop	Basic knowledge practical training	mmm yyyy	dd mmm yyyy	
Electrical workshop	Basic knowledge practical training	mmm yyyy	dd mmm yyyy	
Subcontractor 1	Subcontracting	mmm yyyy	dd mmm yyyy	
Product audit 1	Basic knowledge theoretical training	mmm yyyy	dd mmm yyyy	Special conditions, as per AMC2 147.A.110(a)(5)(d)
Product audit 2	Basic knowledge practical training	unannounced	dd mmm yyyy	
...	...	...	...	

- (g) The audit of each operational area will review all the topics that are applicable to the relevant operational area. For each topic, the audit should check that the particular Part-145 requirement is documented in the corresponding procedure in the exposition, and that the procedure is effectively implemented in the operational area that is being audited. In addition, the audit should also identify any practice/process implemented in the operational area which has not been documented in any procedure in the exposition.

## GM2 147.A.110(a)(5) Management system

### USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) FOR PERFORMING REMOTE AUDITS

This GM provides technical guidance on the use of remote information and communication technologies (ICT) to support regulated organisations when conducting internal audits/monitoring compliance of their organisation with the relevant requirements, and when evaluating vendors, suppliers, and subcontractors.

In the context of this GM:

- 'remote audit' means an audit that is performed with the use of any real-time video and audio communication tools instead of the physical presence of the auditor on-site; the specificities of each type of approval need to be considered in addition to the general overview (described below) when applying the 'remote audit' concept;
- 'auditing entity' means the organisation that performs the remote audit;
- 'auditee' means the entity being audited/inspected (or the entity audited/inspected by the auditing entity via a remote audit);

It is the responsibility of the auditing entity to assess whether the use of remote ICT constitutes a suitable alternative to the physical presence of an auditor on site in accordance with the applicable requirements.

### CONDUCT OF A REMOTE AUDIT

The auditing entity that decides to conduct a remote audit should describe the remote audit process in its documented procedures and should consider at least the following elements:

- The methodology for the use of remote ICT is sufficiently flexible and non-prescriptive in nature in order to optimise the conventional audit process.



- Adequate controls are defined and are in place to avoid abuses that could compromise the integrity of the audit process.
- Measures to ensure that the security and confidentiality are maintained throughout the audit activities (data protection and intellectual property of the organisation also need to be safeguarded).

Examples of the use of remote ICT during audits may include but are not limited to:

- meetings by means of teleconference facilities, including audio, video, and data sharing;
- assessment of documents and records by means of remote access, in real time;
- recording, in real time during the process, of evidence to document the results of the audit, including non-conformities, by means of exchange of emails or documents, instant pictures, video or/and audio recordings;
- visual (livestream video) and audio access to facilities, stores, equipment, tools, processes, operations, etc.

An agreement between the auditing entity and the auditee should be established when planning a remote audit, which should include the following:

- determining the platform for hosting the audit;
- granting security and/or profile access to the auditor(s);
- testing platform compatibility between the auditing entity and the auditee prior to the audit;
- considering the use of webcams, cameras, drones, etc. when the physical evaluation of an event (product, part, process, etc.) is desired or is necessary;
- establishing an audit plan which will identify how remote ICT will be used and the extent of their use for the audit purposes to optimise their effectiveness and efficiency while maintaining the integrity of the audit process;
- if necessary, time zone acknowledgement and management to coordinate reasonable and mutually agreeable convening times;
- a documented statement of the auditee that they shall ensure full cooperation and provision of the actual and valid data as requested, including ensuring any supplier or subcontractor cooperation, if needed; and
- data protection aspects.

The following equipment and set-up elements should be considered:

- the suitability of video resolution, fidelity, and field of view for the verification being conducted;
- the need for multiple cameras, imaging systems, or microphones, and whether the person that performs the verification can switch between them, or direct them to be switched and has the possibility to stop the process, ask a question, move the equipment, etc.;
- the controllability of viewing direction, zoom, and lighting;
- the appropriateness of audio fidelity for the evaluation being conducted; and



- real-time and uninterrupted communication between the person(s) participating to the remote audit from both locations (on site and remotely).

When using remote ICT, the auditing entity and the other persons involved (e.g. drone pilots, technical experts) should have the competence and ability to understand and utilise the remote ICT tools employed to achieve the desired results of the audit(s)/assessment(s). The auditing entity should also be aware of the risks and opportunities of the remote ICT used and the impacts they may have on the validity and objectivity of the information gathered.

Audit reports and related records should indicate the extent to which remote ICT have been used in conducting remote audits and the effectiveness of remote ICT in achieving the audit objectives, including any item that has not been able to be completely reviewed.

## 147.A.115 Instructional equipment

- (a) Each classroom shall have appropriate presentation equipment of a standard that ensures students can easily read presentation text, drawings, diagrams, and figures from any position in the classroom.

For virtual training environments, the training content shall be designed in such a way to assist students in their understanding of the particular subject matter, ensuring that students can easily read presentation text, drawings, diagrams, and figures.

The presentation equipment may include representative maintenance simulation training devices (MSTDs) to assist students in their understanding of the particular subject matter where such devices are considered beneficial for such purposes.

- (b) The ~~basic training~~ workshops and/or maintenance facilities as specified in point 147.A.100(d) ~~must shall~~ have all tools and equipment necessary to ~~perform the approved scope of training~~ ~~conduct training activities within the scope of work~~.
- (c) The ~~basic training~~ workshops and/or maintenance facilities as specified in point 147.A.100(d) ~~must shall~~ have an appropriate selection of aircraft, engines, aircraft parts and avionics equipment.
- (d) The ~~aircraft type training~~ organisation ~~as specified in point~~ 147.A.100(e) must have access to the appropriate aircraft, ~~as required by the scope of work~~ ~~type~~. MSTDs may be used when such training devices ensure adequate training standards.

## GM1 147.A.115(a);(d) Instructional equipment

- ~~1. Refer to the GM to Section 3 of Appendix III to Part 66 for the description, and to point 7 of the AMC to Section 1 of Appendix III to Part 66 for the definitions.~~
2. It is acknowledged that situations could exist where the size and complexity of such MSTDs and/or MTDs may require a dedicated infrastructure. Such instances should be acceptable provided that student access to and use of the respective MSTDs/MTDs is appropriately ensured.



## AMC1 147.A.115(c);(d) Instructional equipment

- (1)- An appropriate selection of aircraft parts means appropriate in relation to the particular subject module or sub-module of Part-66 being instructed. For example, the turbine engine module should require the provision of sufficient parts from different types of turbine engine to show what such parts look like, what the critical areas are from a maintenance viewpoint and to enable disassembly/assembly exercises to be completed.
- (2)- Appropriate aircraft, engines, aircraft parts and avionic equipment means appropriate in relation to the particular subject module or sub-module of Part-66 being instructed. For example, category B2 avionic training should require amongst other equipment, access to at least one type of installed autopilot and flight director system such that maintenance and system functioning can be observed and therefore more fully understood by the student in the working environment.
- (3)- 'Access' to the appropriate aircraft' may be ~~interpreted to mean, in conjunction with the facilities requirement of 147.A.100(d), that there may be~~ achieved through an agreement with a maintenance organisation approved under Part-145 ~~to access such parts, etc.~~

## 147.A.120 ~~Maintenance~~ Training material

- (a) For every training provided by the organisation, ~~Maintenance-training-course~~ material shall be provided to the student and cover, as applicable:
  - (1)- the basic knowledge ~~modules'~~ syllabus specified in Annex III (Part-66) for the relevant aircraft maintenance licence ~~category or (subcategory); and,~~
  - (2)- the ~~aircraft~~ type ~~training~~ ~~course~~-content required by Annex III (Part-66) for the relevant aircraft type and aircraft maintenance licence ~~category or (sub)category; and-~~
  - (3) the aircraft task training content for the relevant aircraft type, maintenance organisation requests in relation to its maintenance activities, and aircraft maintenance licence (sub)category.
- (b) Students shall have access to examples of maintenance documentation and technical information of the library as specified in point 147.A.100(i).
- (c) Access to the maintenance training material relevant to basic or type training courses may be provided as a hard copy or by electronic means provided that the student has the appropriate means to access such material at any given time during the entire duration of the course.

## AMC1 147.A.120(a) ~~Maintenance~~ training material

Training course notes, diagrams and any other instructional material should be accurate and current. Where an amendment service is not provided, a written warning to this effect should be given.



## 147.A.125 Records-keeping

~~The organisation shall keep all student training, examination and assessment records for an unlimited period.~~

(a) The organisation shall retain the following records:

(1) Training records

(i) The organisation shall retain all the records that are necessary to prove that all the requirements have been met for the issue of the certificate of recognition.

The organisation shall record the details of the training activity that is carried out within its scope of work including the following elements:

(A) the location(s) where the training activities are conducted;

(B) the nature and content of the training activities that are conducted;

(C) the dates of commencement and finalisation, and the duration in hours, of the training activities;

(D) the lists of attendees, their attendance data, and results of examinations, assessments, and evaluations, as applicable;

(E) the list of instructors, examiners, and assessors, as applicable, and their role in the training activities that are conducted;

(F) the delivery method e.g. classroom or distance learning;

(G) any deviation from the planning of the activity and any event related to fraudulent actions;

(H) subcontractor issued documents;

(I) certificate(s) of recognition issued as a result of the training activities.

(ii) The organisation shall provide the certificate(s) of recognition to the customer, and if different, to the person concerned.

(iii) The organisation shall retain the records under point (a)(1)(i) for a minimum period of 10 years from the date of issue of the certificate of recognition.

(iv) If the organisation ceases its operation, it shall transfer all the retained training records to the competent authority, in a form and manner specified by the competent authority.

(2) Management system and subcontracting records

(i) The organisation shall ensure that records pertaining to the management system processes referred to in point 147.A.110 are retained for a minimum period of 5 years.

(ii) The organisation shall ensure that records for subcontracting referred to in point 147.A.25 are retained for a minimum period of 5 years.



**(3) Personnel records**

- (i) The organisation shall retain all the records that are necessary to demonstrate that the accountable manager and nominated managers mentioned in points 147.A.105(b) and (c) comply with the requirements for nomination including the following elements:
    - (A) records of commencement and finalisation of employment;
    - (B) records of the qualifications, training, and experience.
  - (ii) The organisation shall retain all the records that are necessary to demonstrate that training personnel comply with the requirements for the issue of the training authorisation including the following elements:
    - (A) records of commencement and finalisation of employment;
    - (B) records of the qualifications, training, and experience;
    - (C) records of personnel evaluations and authorisations;
    - (D) records of the training activities carried out within the organisation;
    - (E) records of reports referred to in point 147.A.110(a)(6).
  - (iii) The organisation shall retain all the records of the qualifications, training, experience, and employment within the organisation of the personnel involved in training activities and compliance activities.
  - (iv) Personnel records shall be retained for at least 3 years after termination of employment within the organisation or, in the case of external persons, after withdrawal of personnel authorisation.
  - (v) The organisation shall provide the personnel referred to in point (ii), upon their request, with access to their personnel records. In addition, upon their request, the organisation shall furnish each of them with a copy of their personnel records.
- (b) The organisation shall establish a record-keeping system that allows adequate storage and reliable traceability of all its activities.
  - (c) The records shall be stored in a manner that ensures that they are protected from factors such as damage, alteration, and theft.
  - (d) The format of the records shall be specified in the organisation's procedures.
  - (e) The competent authority shall be granted access to personnel records.

**AMC1 147.A.125 Record-keeping****GENERAL**

- (a) The record-keeping system should ensure that all records are accessible within a reasonable time whenever they are needed. These records should be organised in a manner that ensures their traceability and retrievability throughout the required retention period.



- (b) Records should be kept in paper form, or in electronic format, or a combination of the two. Records that are stored on microfilm or in optical disc formats are also acceptable. The records should remain legible throughout the required retention period. The retention period starts when the record is created or was last amended.
- (c) Paper systems should use robust materials which can withstand normal handling and filing. Computer record systems should have at least one backup system, which should be updated within 24 hours of any new entry. Computer record systems should include safeguards to prevent unauthorised personnel from altering the data.
- (d) All computer hardware that is used to ensure the backup of data should be stored in a different location from the one that contains the working data, and in an environment that ensures that the data remains in a good condition. When hardware or software changes take place, special care should be taken to ensure that all the necessary data continues to be accessible through at least the full period specified in the relevant provision. In the absence of any such indications, all records should be kept for a minimum period of 3 years.

## AMC2 147.A.125 Record-keeping

### RECORDS OF INSTRUCTOR, EXAMINERS, AND ASSESSORS

- (a) The following minimum information, as applicable, should be kept on record in respect of instructors, examiners, and assessors:
  - (1) Name;
  - (2) Date of birth;
  - (3) Qualifications;
  - (4) Pre-employment training history;
  - (5) Pre-employment experience;
  - (6) Employment information (contract, to include start and end dates, role, responsibilities, job description, etc.);
  - (7) Personnel evaluations;
  - (8) Personnel authorisations (initial and amendments, to include authorisation number, issue and expiration dates, scope of authorisation, etc.);
  - (9) Initial and recurrent training;
  - (10) Experience obtained in the organisation.
- (b) The record may be kept in any format controlled by the organisation's compliance manager. This does not mean that the compliance manager should run the record system.
- (c) The number of persons authorised to access the system should be kept to a minimum to ensure that records cannot be altered in an unauthorised manner, and that such confidential records do not become accessible to any unauthorised persons.





## 147.A.130 Training procedures ~~and quality system~~

- (a) The organisation shall establish procedures ~~acceptable to the competent authority~~ to ensure proper training standards and compliance with all relevant requirements ~~in~~ of this Part Regulation in conducting the training activities, including subcontracted activities, within its scope of work. Such procedures shall be agreed with the competent authority and approved through the approval of the exposition.
- (b) The ~~organisation shall establish a quality system including~~ training procedures established under this point shall ensure:
- (1) ~~an independent audit function to monitor training standards, the integrity of knowledge examinations and practical assessments, compliance with and adequacy of the procedures, and~~ a clear agreement or contract has been concluded between the organisation and the person or organisation that requests the training activities, to clearly establish the training activities to be carried out and the conditions under which they will be carried out;
  - (2) ~~a feedback system of audit findings to the person(s) and ultimately to the accountable manager referred to in point 147.A.105(a) to ensure, as necessary, corrective action.~~ that all the aspects of carrying out the training activities are covered.

### AMC1-147.A.130(a) Training procedures and quality system

~~This guidance material provides some clarifications for the incorporation of new training methods and training technologies in the procedures for aircraft maintenance training.~~

~~The classic training method is a teacher lecturing the pupils in a classroom. Commonly the training tools are a blackboard and training manuals. New technologies make it possible to develop new training methods and use other training tools, e.g. multimedia-based training and virtual reality. A combination of several training methods/tools is recommended in order to increase the overall effectiveness of the training.~~

~~Simulation cannot be eligible as a sole training or assessment tool for basic hand skills such as wiring, welding, drilling, filing, wire locking, riveting, bonding or any other skill where competence may only be achievable by performing a hands-on activity.~~

~~Three tables are provided to illustrate the possibilities for the use of different training methods and tools:~~

~~Table 1: Training tools~~

~~Table 2: Training methods~~

~~Table 3: Combination of training methods and tools and their use~~

~~Table 1 lists existing training tools that may be selected for the training.~~



Table 1- Training tools

Training tools		Description
1	Slideshow presentation	A structured presentation of slides.
2	Manuals	Comprehensive and controlled publication of a particular topic.
3	Computer (desktop PC, laptop, etc.)	An electronic processing device that can hold and display information in various media.
4	Mobile devices (such as, but not limited to, tablets, smart phones, etc.)	A mobile electronic processing device that can hold and display information in various media.
5	Videos	Electronic media for broadcasting moving visual images.
6	MSTD — Maintenance simulation training device	A training device that is intended to be used in maintenance training, examination, and/or assessment for a component, system or entire aircraft. The MSTD may consist of hardware and software elements.
7	Mock-up	A scaled or full-size replica of a component, system or entire aircraft that preserves (i.e. is an exact replica of) the geometrical, operational or functional characteristics of the real component, system or entire aircraft for which maintenance training is delivered with the use of such a replica.
8	Virtual reality	A computer-generated three-dimensional (3D) environment which can be explored and possibly interacted with.
9	MTD — Maintenance training device	Maintenance training device is any training device other than an MSTD used for maintenance training and/or examination and/or assessment. It may include mock-ups.
10	Real aircraft	A suitable aircraft whose condition allows teaching a selection of maintenance tasks that are representative of the particular aircraft or of the aircraft category. ‘Suitable’ means an aircraft of the type or licence (sub)category (if the licence (sub)category aircraft is outfitted with the same equipment subject to the particular lesson module(s) and is sufficiently similar so that the lesson objective(s) can be satisfactorily accomplished) for type training, or an aircraft representative of the licence (sub)category for basic training, and excludes ‘virtual aircraft’. ‘Condition’ means that the aircraft is equipped with its main components and that the systems can be activated/operated when this is required by the learning objectives.
11	Aircraft component	A suitable aircraft component used to teach specific maintenance tasks off the wing. This may include but is not limited to tasks such as borescope inspections, minor repairs, testing, or the assembly/disassembly of sub-components. ‘Suitable’ means that the condition of the component should fit the learning objectives of the tasks and, when appropriate, may feature existing defects or damages.
12	Augmented reality	An enhancement (modification, enrichment, alteration or manipulation) of one’s current perception of reality elements of a physical, real-world environment following user’s inputs picked up by sensors transferred to rapid-streaming computer images. By contrast, virtual reality replaces the real world with a simulated one.
13	Embedded training	A maintenance training function that is originally integrated into the aircraft component’s design (i.e. a centralised fault display system).
14	Classroom	A physical, appropriate location where learning takes place.
15	Virtual classroom	A simulated, not physical, location where synchronous learning takes place.
16	Virtual aircraft	A simulated, not physical, aircraft that may be used in theoretical training, practical training, examination or assessment.



Training tools	Description
Note: Synthetic training devices (STDs) is a generic term used for systems using hardware and/or software, simulating the behaviour of one or more aircraft systems or a complete aircraft, such as maintenance simulation training devices (MSTDs), maintenance training devices (MTDs) and <u>flight simulation training devices (FSTDs)</u> .	

Table 2 lists existing training methods that may be selected for the training.

**Table 2: Training methods**

Training method	Description	Instructor-centred <sup>(1)</sup>	Student-centred <sup>(2)</sup>	Blended training <sup>(2)</sup>
Assisted learning (mentoring)	Assisted learning or mentorship represents an ongoing, close relationship of dialogue and learning between an experienced / knowledgeable instructor and a less experienced / knowledgeable student in order to develop experience / knowledge of students.	X	X	X
Computer-based training (CBT)	CBT is any interactive means of structured training using a computer to deliver a content. (Note: Not to be confused with competency based training that also uses the acronym 'CBT')	X	X	X
Demonstration	A method of teaching by example rather than explanation.	X		X
Distance learning asynchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is asynchronous if the teacher and the students do not interact at the same time.		X	X
Distance learning synchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is synchronous if the teacher and the students interact at the same time (real time).	X		X
e-learning	Training via a network or electronic means, with or without the support of instructors (e-tutors).	X	X	X
Lecturing (instructor-led/face to face)	Practice of face-to-face delivery of training and learning material between an instructor and students, either individuals or groups.	X		X
Mobile learning (M-learning)	Any sort of learning that happens when the student is not at a fixed, predetermined location, using mobile technologies.	X	X	X
Multimedia-based training <sup>(4)</sup>	Any combined use of different training media.	X	X	X
Simulation	Any type of training that uses a simulator imitating a real-world process or system.	X	X	X
Web-based training (WBT)	Generic term for training or instruction delivered over the internet or an intranet using a web browser.	X	X	X

Note: The purpose of this table is to provide a short definition for each associated training method and to relate each method to the focus of the learning. It is not meant to comprehensively explore and identify the capabilities of each training method herein included.

(1) 'Instructor-centred' means that the instructor is responsible for teaching the student.

(2) 'Student-centred' means that the student is responsible for the learning progress.



Training method	Description	Instructor-centred <sup>(1)</sup>	Student-centred <sup>(2)</sup>	Blended training <sup>(3)</sup>
<p>(3) 'Blended training' includes different instructional methods and tools, different delivery methods, different scheduling (synchronous/asynchronous) or different levels of guidance. Blended training allows the integration of a range of learning opportunities.</p> <p>(4) 'Multimedia-based training' by definition uses various media to achieve its objective, thus, none of the single media listed is per se a complete solution for training.</p>				

Table 3 presents the combination of training methods and tools, that may be taken into account for theoretical and practical training.

The table is intended to support potential delivery methods. Additional training methods and further use of those methods could be acceptable to the competent authority when demonstrated as supporting learning objectives.

**Table 3 Combination of training methods and tools, and their use**

Training method	Training tools	Theoretical elements			Practical elements	OJT	Learning objectives		
		Level 1	Level 2	Level 3			Knowledge	Skills	Attitude
See Table 2	See Table 1								
Lecturing (instructor-led /face to face)	1,2,3,5,6,7,8,9, 10, 11,12,13,14,16	X	X	X	X	X Only type	X	X	X Only type
Assisted learning (mentoring)	1,2,3,5,6,7,8,9, 10,11,12,13,14, 15,16	X	X	X	X	X Only type	X	X	X Only type
e-learning	1,2,3,4,5,8,12, 14,15,16	X	X	X <sup>(4)</sup>	X <sup>(4)</sup>		X	X <sup>(4)</sup>	X <sup>(4)</sup>
Computer-based training	1,2,3,4,5,8,12, 14,15,16	X	X	X	X <sup>(4)</sup>		X Only type	X <sup>(4)</sup>	
Multimedia-based training	1,2,3,4,5,8,12, 13,14,15,16	X	X	X	X <sup>(4)</sup>		X Only type	X <sup>(4)</sup>	X <sup>(4)</sup>
Web-based training (WBT)	1,2,3,4,5,8,12, 14,15,16	X	X	X <sup>(4)</sup>	X <sup>(4)</sup>		X Only type	X <sup>(4)</sup> Only type	X <sup>(4)</sup>
M-learning	1,2,3,4,5,12,15, 16	X	X	X <sup>(4)</sup>	X <sup>(4)</sup>		X <sup>(4)</sup> Type unlimited	X <sup>(4)</sup>	
Distance learning synchronous	1,2,3,4,5,8,15, 16	X	X	X <sup>(4)</sup>	X <sup>(4)</sup>		X <sup>(4)</sup> Type unlimited	X <sup>(4)</sup>	X <sup>(4)</sup> Only type
Distance learning asynchronous	1,2,3,4,5,8,16	X	X	X <sup>(4)</sup>			X <sup>(4)</sup> Type unlimited	X <sup>(4)</sup>	X <sup>(4)</sup> Only type
Demonstration	1,2,3,5,6,7,8,9, 10,11,12,13,14, 15,16	X	X	X <sup>(4)</sup>	X	X <sup>(4)</sup> Only type	X	X	X <sup>(4)</sup> Only type
Simulation	1,3,4,6,7,8,9, 10,12,14, 15 <sup>(4)</sup> , 16	X	X	X <sup>(4)</sup>	X		X	X	X Only type

This table relates a given training method to a list of acceptable training tools (code), oriented to deliver the theoretical elements, practical elements or on-the-job training associated with their specific learning objectives.



Training method	Training tools	Theoretical elements			Practical elements	OJT	Learning objectives		
		Level 1	Level 2	Level 3			Knowledge	Skills	Attitude
See Table 2	See Table 1								

(1) Limited suitability. It means that the respective training method may be used but with limited results, thus requiring the support of a complementary training method to fulfil the learning objectives.  
NOTE: Instructor (human) involvement should be considered in Basic Knowledge Module 9.

## AMC 147.A.130(b) Training procedures and quality system

1. — ~~The independent audit procedure should ensure that all aspects of Part 147 compliance should be checked at least once in every 12 months and may be carried out as one complete single exercise or subdivided over a 12 month period in accordance with a scheduled plan.~~
2. — ~~In a small maintenance training organisation the independent audit function may be contracted to another maintenance training organisation approved under Part 147 or a competent person acceptable to the competent authority. Where the small training organisation chooses to contract the audit function it is conditional on the audit being carried out twice in every 12 month period with one such audit being unannounced.~~
3. — ~~Where the maintenance training organisation is also approved to another Part requiring a quality system, then such quality systems may be combined.~~
4. — ~~When training or examination is carried out under the sub-contract control system:~~
  - (i) — ~~a pre audit procedure should be established whereby the Part 147 approved maintenance training organisation' should audit a prospective sub-contractor to determine whether the services of the sub-contractor meet the intent of Part 147.~~
  - (ii) — ~~a renewal audit of the subcontractor should be performed at least once every 12 months to ensure continuous compliance with the Part 147 standard.~~
  - (iii) — ~~the sub contract control procedure should record audits of the sub-contractor and to have a corrective action follow up plan.~~
5. — ~~The independence of the audit system should be established by always ensuring that audits are carried out by personnel not responsible for the function or procedure being checked.~~

## GM to 147.A.130(b) Training procedures and quality system

1. — ~~The primary objective of the quality system is to enable the training organisation to satisfy itself that it can deliver properly trained students and that the organisation remains in compliance with Part 147.~~
2. — ~~The independent audit is a process of routine sample checks of all aspects of the training organisation's ability to carry out all training and examinations to the required standards. It represents an overview of the complete training system and does not replace the need for instructors to ensure that they carry out training to the required standard.~~
3. — ~~A report should be raised each time an audit is carried out describing what was checked and any resulting findings. The report should be sent to the affected department(s) for rectification action giving target rectification dates. Possible rectification dates may be discussed with the~~



~~affected department(s) before the quality department confirms such dates on the report. The affected department(s) should rectify any findings and inform the quality department of such rectification.~~

- ~~4. A large training organisation (an organisation with the capacity to provide training for 50 students or more) should have a dedicated quality audit group whose sole function is to conduct audits, raise finding reports and follow up to ensure that findings are being rectified. For the small training organisation (an organisation with the capacity to provide training for less than 50 students) it is acceptable to use competent personnel from one section/department not responsible for the function or procedure to check the section/department that is responsible subject to the overall planning and implementation being under the control of the quality manager.~~
- ~~5. The management control and follow up system should not be contracted to outside persons. The principal function is to ensure that all findings resulting from the independent audit are corrected in a timely manner and to enable the accountable manager to remain properly informed of the state of compliance. Apart from rectification of findings the accountable manager should hold routine meetings to check progress on rectification except that in the large training organisation such meetings may be delegated on a day to day basis to the quality manager as long as the accountable manager meets at least once per year with the senior staff involved to review the overall performance.~~

## AMC1 147.A.130 Training procedures

### GENERAL

- (a) Training procedures should be kept up to date such that they reflect the current best practices within the organisation, whilst maintaining compliance with the Regulation. The organisation should ensure a method through which differences can be reported. The organisation's personnel should receive training and instructions on reporting such differences.
- (b) All procedures, and changes to those procedures, should be verified and validated before use where practicable and applicable.
- (c) All procedures should be designed and presented in accordance with good human factors principles.

## GM1 147.A.130 Training procedures

### HUMAN FACTORS PRINCIPLES

The following key points should be considered when designing and presenting technical procedures in accordance with good human factors principles:

- (a) The design of procedures and changes should involve personnel who have a good working knowledge of the tasks;
- (b) Ensuring that the procedures are accurate, appropriate, and usable, and reflect best practices;
- (c) Taking account of the level of expertise and experience of the user;



- (d) Taking account of the environment in which the procedures are to be used;
- (e) Ensuring that all the key information is included without the procedure being unnecessarily complex;
- (f) Where appropriate, explaining the reasons for the procedure;
- (g) The order of the tasks and the steps should reflect best practices, with the procedure clearly stating where the order of steps is critical, and where changes to the order are acceptable;
- (h) Ensuring consistency in the design of procedures and the use of terminology, abbreviations, references, etc.
- (i) For documents produced in the English language, using 'simplified English'.

## AMC1 147.A.130(b)(1) Training procedures

### DEVELOPING A TRAINING CONTRACT

The organisation should establish a clear contract or agreement with the person or organisation requesting training activities to include as a minimum:

- (a) The name, (legal) address, and means of contact of the organisation providing the services (i.e. the organisation) and of the person receiving the services i.e. the student

- (b) The location where training activities will take place

The place(s) where training activities, as applicable, will be performed should be specified. The certificate held by the organisation at the place(s) where training activities will be performed should be referred to in the contract or agreement.

- (c) The delivery methods of the training activities

The training methods and tools referred to in point 147.A.132(c)(2) should be specified and detailed as necessary for the student to understand the conditions under which training activities will be delivered.

- (d) Certification

The documents to be issued by the organisation, as a result (positive or negative) of the training activities, should be specified, to include as a minimum, a reference to the certificate of recognition and the conditions for its issue.

- (d) The scope of work

The training activities should be specified using the terminology of the certificate of the organisation, and further detailed as necessary using the terminology of this Annex or Annex III (Part-66).

- (e) Schedule of training activities

The detailed schedule of the training activities, their duration and location should be specified.



**(f) Conditions for attending training activities**

Requirements for the student to fulfil in order to attend the training activities should be specified, including language competence and any specific physical requirements.

**(g) Responsibilities**

The responsibilities of each party in respect to services being delivered should be specified, to include the responsibilities of the organisation to provide training activities to the standard specified in the MTOE, and the responsibilities of the student to comply with the rules and procedures of the organisation, to ensure resources, if applicable (e.g. in case of DLS the student should be made aware of their responsibilities to ensure appropriate facilities and equipment, as described by the organisation).

Special emphasis should be given to the responsibilities of each party in regard to the examination process, in particular the requirements of point 147.A.135(c). A provision should be included for the student to inform the organisation of any previously failed examinations or other prohibitions related to the training activities undertaken as described in point 147.A.135(d).

The organisation should ensure through the provision of such contract or agreement that it provides all the information necessary for the student to understand their rights and obligations.

**(h) Subcontracting**

The contract or agreement should specify whether the organisation subcontracts or intends to subcontract tasks to a third party (regardless of whether this third party is approved or not). A provision referring to 147.A.145 should be included.

**(i) Procedures**

The relevant procedures of the organisation should be referred to in the contract or agreement and, if necessary, included or annexed.

**(j) Records**

The relevant records pertaining to the training activities undertaken by the student, including student file, examinations, assessments, certificates of recognition should be specified, including which of these should be made available to the student and the means to do so.

**147.A.132 Performance of training activities**

**(a)** The organisation may only carry out training activities for which it is approved when all the necessary facilities, equipment, tooling, material, training data and personnel are available.

**(b)** The organisation shall be responsible for the training activities that are performed within the scope of its work.

**(c)** The organisation shall ensure:

**(1)** training activities are carried out in compliance with the applicable requirements and to the standards described in its procedures;





- (2) the development of instructions on training methods and tools and their proper use;
- (3) the language competence of personnel referred to in point 147.A.105(i) and of the students undergoing training activities;
- (4) the security of its training activities, especially in respect of the examination process;
- (5) an effective system to combat and prevent any fraudulent actions is established and maintained, as part of its management system;
- (6) a system of reporting to the competent authority of events referred to point 147.A.135(h) is established and maintained, as part of its management system;
- (7) the elaboration of an activity report to be provided to the competent authority on a yearly basis.

(d) Training activities

- (1) Theoretical training elements shall ensure:
  - (i) compliance with Appendix I to this Annex, and Appendices I, III and VII to Annex III (Part-66), as applicable;
  - (ii) the use of relevant and accurate data in the development of training material, and continuous monitoring for updates and amendments;
  - (iii) the review of training material on an annual basis, as a minimum;
  - (iv) the appropriate and effective use of the training methods and tools referred to in point 147.A.130 and of the instructional equipment referred to in point 147.A.115;
  - (v) the student receives the required knowledge in its entirety and effectively;
  - (vi) the student has an appropriate understanding of the topic;
  - (vii) the student is able to apply the knowledge to aircraft maintenance.
- (2) Theoretical examination elements shall ensure:
  - (i) compliance with Appendices II, III and VIII to Annex III (Part-66), as applicable;
  - (ii) the use of correct and appropriate multiple-choice questions and essays developed from the training material;
  - (iii) the review of multiple-choice questions and essays on an annual basis, as a minimum, to include a renewal of at least 10 % of the multiple-choice questions;
  - (iv) the use of an appropriate selection of topics to cover a representative cross section of the subject matter;
  - (v) the appropriate and effective use of the instructional equipment referred to in point 147.A.115;
  - (vi) the student possesses the required knowledge to the established standard.



- (3) Practical training elements shall ensure:
- (i) compliance with Appendix I to this Annex, and Appendices I, III and VII to Annex III (Part-66), as applicable;
  - (ii) the use of relevant and accurate data in the development of training material;
  - (iii) the appropriate and effective use of the training methods and tools referred to in point 147.A.130 and of the instructional equipment referred to in point 147.A.115;
  - (iv) the appropriate and effective use of tooling and equipment, of parts and materials, and of components and aircraft;
  - (v) the student receives the required knowledge in its entirety and effectively;
  - (vi) the student participates in a representative selection of maintenance activities;
  - (vii) the student has an appropriate understanding of the topic;
  - (viii) the student is able to apply the knowledge and practical skills to aircraft maintenance.
- (4) Practical assessment elements shall ensure:
- (i) compliance with Appendices I, III and VII to Annex III (Part-66), as applicable;
  - (ii) the use of correct and appropriate assessment material developed from the training material;
  - (iii) the use of an appropriate selection of topics to cover a representative cross section of the subject matter;
  - (iv) the appropriate and effective use of the instructional equipment referred to in point 147.A.115;
  - (v) the student possesses the required knowledge to the established standard;
  - (vi) the student has developed the required competencies in relation to use of tools and equipment and maintenance documentation.

### AMC1 147.A.132(c)(2) Performance of training activities

- (a) The classic training method is considered to be a teacher lecturing pupils in a classroom. Commonly the training tools are a blackboard and training manuals. New technologies make it possible to develop new training methods and use other training tools, e.g. multimedia-based training and virtual reality. A combination of several training methods and tools is recommended in order to increase the overall effectiveness of the training.
- (b) Simulation is not acceptable as a sole training or assessment tool for basic hand skills such as wiring, welding, drilling, filing, wire locking, riveting, bonding, or any other skill where competence may only be achievable by performing a hands-on activity.
- (c) Three tables are provided to illustrate the possibilities for the use of different training methods and tools:



(i) Table 1: Training tools

(ii) Table 2: Training methods

(iii) Table 3: Combination of training methods and tools and their use

Table 1 lists existing training tools that may be selected for the training.

**Table 1: Training tools**

	Training tools	Description
1	Slideshow presentation	A structured presentation of slides
2	Manuals	Comprehensive and controlled publication of a particular topic
3	Computer (desktop PC, laptop, etc.)	An electronic processing device that can hold and display information in various media
4	Mobile devices (such as, but not limited to, tablets, smart phones, etc.)	A mobile electronic processing device that can hold and display information in various media
5	Videos	Electronic media for broadcasting moving visual images
6	MSTD — Maintenance simulation training device	A training device that is intended to be used in maintenance training, examination and/or assessment for a component, system or entire aircraft. The MSTD may consist of hardware and software elements.
7	Mock-up	A scaled or full-size replica of a component, system or entire aircraft that preserves (i.e. is an exact replica of) the geometrical, operational or functional characteristics of the real component, system or entire aircraft for which maintenance training is delivered with the use of such a replica.
8	Virtual reality	A computer-generated three-dimensional (3D) environment which can be explored and possibly interacted with
9	MTD — Maintenance training device	Maintenance training device is any training device other than an MSTD used for maintenance training and/or examination and/or assessment. It may include mock-ups.
10	Real aircraft	A suitable aircraft whose condition allows teaching a selection of maintenance tasks that are representative of the particular aircraft or of the aircraft category. 'Suitable' means an aircraft of the type or licence (sub)category (if the licence (sub)category aircraft is outfitted with the same equipment subject to the particular lesson module(s) and is sufficiently similar so that the lesson objective(s) can be satisfactorily accomplished) for type training, or an aircraft representative of the licence (sub)category for basic training, and excludes 'virtual aircraft'. 'Condition' means that the aircraft is equipped with its main components and that the systems can be activated/operated when this is required by the learning objectives.
11	Aircraft component	A suitable aircraft component used to teach specific maintenance tasks off-the-wing. This may include, but is not limited to, tasks such as borescope inspections, minor repairs, testing, or the assembly/disassembly of sub-components. 'Suitable' means that the condition of the component should fit the learning objectives of the tasks and, when appropriate, may feature existing defects or damages.
12	Augmented reality	An enhancement (modification, enrichment, alteration or manipulation) of one's current perception of reality elements of a physical, real-world environment following user's inputs picked up by sensors transferred to rapid streaming computer images. By contrast, virtual reality replaces the real world with a simulated one.



	Training tools	Description
13	Embedded training	A maintenance training function that is originally integrated into the aircraft component's design (i.e. a centralised fault display system).
14	Classroom	A physical, appropriate location where learning takes place.
15	Virtual classroom	A simulated, not physical, location where synchronous learning takes place.
16	Virtual aircraft	A simulated, not physical, aircraft that may be used in theoretical training, practical training, examination or assessment.

Note: Synthetic training devices (STDs) is a generic term used for systems using hardware and/or software, simulating the behaviour of one or more aircraft systems or a complete aircraft, such as maintenance simulation training devices (MSTDs), maintenance training devices (MTDs) and flight simulation training devices (FSTDs).

Table 2 lists existing training methods that may be selected for the training.

**Table 2: Training methods**

Training method	Description	Instructor-centred <sup>(1)</sup>	Student-centred <sup>(2)</sup>	Blended training <sup>(3)</sup>
Assisted learning (mentoring)	Assisted learning or mentorship represents an ongoing, close relationship of dialogue and learning between an experienced/knowledgeable instructor and a less experienced/knowledgeable student in order to develop experience/knowledge of students.	X	X	X
Computer-based training (CBT)	CBT is any interactive means of structured training using a computer to deliver a content. (Note: Not to be confused with competency-based training that also uses the acronym 'CBT')	X	X	X
Demonstration	A method of teaching by example rather than explanation	X		X
Distance learning asynchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is asynchronous if the teacher and the students do not interact at the same time.		X	X
Distance learning synchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is synchronous if the teacher and the students interact at the same time (real time).	X		X
e-learning	Training via a network or electronic means, with or without the support of instructors (e-tutors)	X	X	X
Lecturing (instructor-led/face to face)	Practice of face-to-face delivery of training and learning material between an instructor and students, either individuals or groups	X		X
Mobile learning (M-learning)	Any sort of learning that happens when the student is not at a fixed, predetermined location, using mobile technologies	X	X	X
Multimedia-based training <sup>(4)</sup>	Any combined use of different training media	X	X	X
Simulation	Any type of training that uses a simulator imitating a real-world process or system.	X	X	X



Training method	Description	Instructor-centred <sup>(1)</sup>	Student-centred <sup>(2)</sup>	Blended training <sup>(3)</sup>
Web-based training (WBT)	Generic term for training or instruction delivered over the internet or an intranet using a web browser.	X	X	X

Note: The purpose of this table is to provide a short definition for each associated training method and to relate each method to the focus of the learning. It is not meant to comprehensively explore and identify the capabilities of each training method herein included.

- (1) 'Instructor-centred' means that the instructor is responsible for teaching the student.
- (2) 'Student-centred' means that the student is responsible for the learning progress.
- (3) 'Blended training' includes different instructional methods and tools, different delivery methods, different scheduling (synchronous/asynchronous) or different levels of guidance. Blended training allows the integration of a range of learning opportunities.
- (4) 'Multimedia-based training' by definition uses various media to achieve its objective, thus, none of the single media listed is per se a complete solution for training.

Table 3 presents the combination of training methods and tools that may be taken into account for theoretical and practical training.

The table is intended to support potential delivery methods. Additional training methods and further use of those methods could be acceptable to the competent authority when demonstrated as supporting learning objectives.

**Table 3 Combination of training methods and tools, and their use**

Training method	Training tools	Theoretical elements			Practical elements	OJT	Learning objectives		
		Level 1	Level 2	Level 3			Knowledge	Skills	Attitude
See Table 2	See Table 1								
Lecturing (instructor-led /face to face)	1,2,3,5,6,7,8,9,10 11,12,13,14,16	X	X	X	X	X Only type	X	X	X Only type
Assisted learning (mentoring)	1,2,3,5,6,7,8,9,10,11,12,13,14,15,16	X	X	X	X	X Only type	X	X	X Only type
e-learning	1,2,3,4,5,8,12,14,15,16	X	X	X <sup>(1)</sup>	X <sup>(1)</sup>		X	X <sup>(1)</sup>	X <sup>(1)</sup>
Computer-based training	1,2,3,4,5,8,12,14,15,16	X	X	X	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup>	
Multimedia-based training	1,2,3,4,5,8,12,13,14,15,16	X	X	X	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup>	X <sup>(1)</sup>
Web-based training (WBT)	1,2,3,4,5,8,12,14,15,16	X	X	X <sup>(1)</sup>	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup> Only type	X <sup>(1)</sup>
M-learning	1,2,3,4,5,12,15,16	X	X	X <sup>(1)</sup>	X <sup>(1)</sup>		X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	
Distance learning synchronous	1,2,3,4,5,8,15,16	X	X	X <sup>(1)</sup>	X <sup>(1)</sup>		X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	X <sup>(1)</sup> Only type
Distance learning asynchronous	1,2,3,4,5,8,16	X	X	X <sup>(1)</sup>			X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	X <sup>(1)</sup> Only type



Training method	Training tools	Theoretical elements			Practical elements	OJT	Learning objectives		
		Level 1	Level 2	Level 3			Knowledge	Skills	Attitude
See Table 2	See Table 1								
Demonstration	1,2,3,5,6,7,8,9,10,11,12,13,14,15,16	X	X	X <sup>(1)</sup>	X	X <sup>(1)</sup> Only type	X	X	X <sup>(1)</sup> Only type
Simulation	1,3,4,6,7,8,9,10,12,14, 15 <sup>(1)</sup> , 16	X	X	X <sup>(1)</sup>	X		X	X	X Only type

This table relates a given training method to a list of acceptable training tools (code), oriented to deliver the theoretical elements, practical elements or on-the-job training associated with their specific learning objectives.

(1) Limited suitability. It means that the respective training method may be used but with limited results, thus requiring the support of a complementary training method to fulfil the learning objectives.

NOTE: Instructor (human) involvement should be considered in Basic Knowledge Module 9.

## AMC2 147.A.132(c)(2) Performance of training activities

### DISTANCE LEARNING VIA UNIFORM RESOURCE LOCATOR (URL) ADDRESSES

- Distance training may also be delivered via uniform resource locator (URL) addresses. When delivering distance training, the learning location is the responsibility of the student and need not be controlled by the training organisation. Refer to 147.A.100(j).
- Knowledge examinations may also be conducted by accessing the examination questions via uniform resource locator (URL) addresses, provided that the knowledge examination environment is under the control of the maintenance training organisation.

## AMC1 147.A.132(c)(3) Performance of training activities

- The organisation should ensure that the students undergoing training activities possess a minimum level of language competence of CEFR Level B2 (or equivalent) in the language of the training activity and documentation.
- When several languages are used in delivering the training activity, linguistic competence in each of the languages must be ensured at the level mentioned in point (a).
- Linguistic competence should be ensured through a certificate issued by a recognised institute. The organisation may accept, as a result of its internal evaluation, any other equivalent attestation when satisfied that such attestation is accurate and equivalent to the level mentioned in point (a).
- When the language used in delivering the training activity is the first language (native language) of the student, the organisation may accept a self-declaration issued by, or on behalf of, the student.



**AMC1 147.A.132(c)(4) Performance of training activities**

- (a) The organisation should develop a system that allows it the establishment, monitoring and adaptation of security measures that cover all the aspects of delivering training activities, including but not limited to the security of facilities, instructional equipment, tooling and equipment, materials, part and components, aircraft, personnel and student records, training and examination records, training documentation, and examination material.
- (b) The organisation should emphasise on the security measures of MCQs and essays database and questionnaires, as applicable, and should be able to demonstrate effective continuous control over such measures. The organisation should ensure that access to examination material is limited only to personnel involved in the process, as described in its procedures.
- (c) The organisation should ensure it takes into account potential flaws and breaches when developing and adapting its system to correct and prevent such events from taking place.

**AMC1 147.A.132(c)(5) Performance of training activities**

- (a) The organisation should develop a system in concert with the provisions of 147.A.132(c)(2) that allows it to prevent any fraudulent actions within its organisation, including but not limited to access to restricted information, receiving and disseminating restricted information (within or outside the organisation), cheating during examination and assessments, interference with the examination process or results.
- (b) The organisation should ensure that its system allows for appropriate measures in cases involving either its personnel or its students or both and should ensure that attempts at fraudulent actions are treated regardless of whether they are successful or not.

**AMC1 147.A.132(c)(6) Performance of training activities**

- (a) The organisation should ensure that any reportable event as referred to in point 147.A.135 is reported under the established conditions and the imposed time interval, and any other information it considers relevant is reported in the shortest applicable time, to the competent authority.
- (b) Where the organisation holds or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and its delegated and implementing acts, it may use the reporting system developed to meet the requirements of Regulation (EU) No 376/2014 and its implementing acts for its reporting requirements under point 147.A.132(c)(6).

**AMC1 147.A.132(c)(7) Performance of training activities**

- (a) The organisation should ensure that the activity report it provides to the competent authority contains as a minimum the following information, segregated by training activity, as applicable to the scope of work:
  - (1) the number of sessions planned;



- (2) the number of sessions undertaken, with dates and locations;
  - (3) explanation for the difference between the numbers in point (1) and (2), if applicable;
  - (4) the number, nature, and the location of training activities undertaken in locations other than the ones identified in the certificate and the exposition;
  - (5) the number of students undergoing the training activity, and their identification data;
  - (6) the results of training, examinations, assessments, and evaluations, for class rating;
  - (7) analyses of the examinations results, highlighting the passing and failure rates, by class rating.
- (b) This information should allow the competent authority to effectively monitor and evaluate the organisation, and to benchmark the results, especially those of examinations, against other organisations within the Member States.

## AMC1 147.A.132(d) Performance of training activities

### PEDAGOGICAL AND HUMAN FACTORS PRINCIPLES

- (a) In order to apply pedagogical and human factors principles, the maximum number of training hours per day for the theoretical training should not exceeds 6 hours.
- (b) A training hour means 60 minutes of tuition excluding any breaks, examination, revision, preparation, and aircraft visit.

## AMC1 147.A.132(d)(1)(3) Performance of training activities

- (a) 'Receives the required knowledge in its entirety and effectively' means that the organisation should develop a training programme that ensures that all the required training is provided to the required standard. The training programme should also ensure that a student who misses a class is able to retake it so as to avoid lack of knowledge in a particular topic and is able to do so at a time and in a manner that does not impede delivery of training on other topics that might require the missing knowledge.

The organisation should establish minimum participation criteria for the training it delivers which should not be less than 90 % of the tuition hours or 95 % completion of the content. Failure to obtain the minimum participation required for the completion of training, as described by the organisation in its procedures, means that a certificate of recognition cannot be issued.

- (b) 'Appropriate understanding of the topic' means that the organisation should ensure not only the delivery of information but also feedback from the student to assess whether the information has been properly received, and to reiterate as required until the exchange of information is successful.
- (c) 'Able to apply the knowledge (and practical skills) to aircraft maintenance' means that the organisation should ensure that the knowledge delivered and the skills developed are applicable





to the aircraft maintenance environment and that the student is able to correctly apply the theoretical principles and practical skills to maintenance activities.

- (d) The organisation should consider the particularities of its students in developing and delivering training activities e.g. for a group formed of both minors and adults, the different needs of both categories and the different requirements of pedagogical and andragogical teaching should be taken into account.

## 147.A.135 Examinations process

- (a) The organisation ~~examination staff~~ shall ensure the security of ~~all~~ the examination documentation and examination process ~~questions~~, under the responsibility of the examination manager.
- (b) The examination shall be carried out by an approved examiner referred to in point 147.A.105(j), under the oversight and responsibility of the examination manager.
- (c) The organisation shall develop a set of rules for the examination process, as part of the examination procedure referred to in point 147.A.140(a)(12), including as a minimum:
- (1) duties and responsibilities of the examiner in relation to the examination process;
  - (2) documentation to be provided by the examinees at the moment of the examination to ensure their identification by the examiner;
  - (3) a declaration of awareness to be acknowledged by the examinee, regarding their rights, responsibilities and obligations, including as a minimum:
    - (i) the examinee's obligation to adhere to the rules of the examination process;
    - (ii) clear mention of, and direct reference to, the measures referred to in point (i) below;
    - (iii) the examinee's obligation to report through the reporting scheme referred to in point 147.A.110(a)(6) to the organisation suspicions of violation of the examination rules or any other event related to fraudulent actions in which the examinee is directly involved, and the appropriate and effective means to do so, including the possibility of anonymous reporting;
    - (iv) the encouragement of the examinee to voluntarily report to the organisation suspicions of violation of the examination rules or any other event related to fraudulent actions which they witnessed without being directly involved, and the appropriate and effective means to do so, including the possibility of anonymous reporting;
    - (v) the examinee's right to report to the competent authority suspicions of violation of the examination rules or any other event related to fraudulent actions and the means provided by the competent authority to do so;
    - (vi) the examinee's obligation to inform the organisation of any relevant previously failed examinations and any prohibitions as described in point (h).



- (d) The organisation shall submit to the competent authority its examination plan, and consequently notify it of any amendments, emphasising the examinations taking place in locations other than the ones identified in the certificate and the exposition. The notification shall be sent to the competent authority as soon as possible, but no later than 1 week before the examination takes place.
- (e) The organisation shall also notify the authority of the Member State in which the examination takes place, if different from the competent authority of the organisation.
- (f) Examinations taking place in locations other than the ones identified in the certificate and in the exposition, shall be conducted under the supervision of an inspector designated by the competent authority.
- (g) The organisation shall develop a system, described in the examination procedure, which ensures that in the case of examinations referred to in points (f) and (g), the examination questionnaires can be selected only by the competent authority inspector at the time of the examination and not earlier than the examinees and examiner(s) being present in the examination room.
- (h) The organisation shall ensure that a Any student found during an knowledge examination to be cheating or in possession of material pertaining to the examination subject other than the examination papers material and associated authorised documentation or in violation of the examination rules shall be disqualified from taking the examination and may not take prohibited from taking any examination within the organisation for at least 12 48 months after the date of the incident.

The organisation shall ensure that it informs the competent authority ~~shall be informed of any such incident together with the details of any enquiry~~ within 72 hours of such an event ~~one calendar month~~ and provide any additional information considered relevant or requested by the competent authority within 1 month of the event or earlier within the period established by the competent authority.

- ~~(c) Any examiner found during a knowledge examination to be providing question answers to any student being examined shall be disqualified from acting as an examiner and the examination declared void. The competent authority must be informed of any such occurrence within one calendar month.~~
- (d) The examination shall be performed in a controlled environment by a training organisation approved under this Annex and described in its maintenance training organisation exposition (MTOE).

~~For examination purposes, a 'controlled environment' means an environment where the following can be established and verified: (a) the identity of the students; (b) the proper conduct of the examination process; (c) the integrity of the examination and (d) the security of the examination material.~~

## AMC1 147.A.135(a) Examinations process

1. ~~Examinations may be computer or hard-copy based or a combination of both.~~



~~2. The actual questions to be used in a particular examination should be determined by the examiners.~~

- (a) The examination manager should ensure that each examination is carried out to the standard set out in the organisation's procedures.
- (b) The examination manager should ensure that examination questionnaires are selected from the database as close to the examination as possible, no sooner than the day of the examination, to ensure that their security is properly controlled.
- (c) The examination manager and examiner(s) should ensure that the examination location meets the requirements for a secure examination process such as:
  - (1) sufficient distance between examinees or appropriate segregation, so as to ensure that the examination material of one examinee is not visible to another examinee;
  - (2) sufficient visibility of each examinee from any point in the room, i.e. the examiner should not have to approach an examinee to observe their actions and movements;
  - (3) if applicable, audio and video surveillance equipment should be used to monitor and/or record the examination process;
  - (4) if applicable, proctoring software should be used in the case of computer-based examinations;
  - (5) the examination room should be free of any training material, or any other source of information related to the examination e.g. visual aids, mock-ups;
  - (6) the examiner should ensure that the examinees do not have in their possession any item e.g. equipment, manuals, clothing that might otherwise affect the examination process.

### AMC2 147.A.135(a) Examination process

- (a) Questions may be prepared in the national language, but the use of aviation English is recommended wherever possible.
- (b) The primary purpose of essay questions is to determine that the candidate can express themselves in a clear and concise manner and can prepare a concise technical report using the technical language of the aviation industry, which is why only a few essay questions are required. The essay questions also allow to assess, in part, the technical knowledge retained by the individual and with a practical application relevant to a maintenance scenario.
- (c) For pass mark purposes, the essay questions should be considered as separate from the multiple-choice questions.
- (d) Multiple-choice question (MCQ) generation

The following principles should be observed when developing MCQs:

- (1) The examination should measure clearly formulated goals. Therefore, the field and depth of knowledge to be measured by each question should be fully identified.
- (2) All the questions should be of the multiple-choice type with three alternative answers.



- (3) Questions that require specialised knowledge of specific aircraft types should not be asked in a basic knowledge theoretical examination.
- (4) The use of abbreviations and acronyms should generally be avoided. However, where needed, only internationally recognised abbreviations and acronyms should be used. In case of doubt, use the full form e.g. angle of attack = 12 degrees instead of  $\alpha = 12^\circ$ .
- (5) Questions and answers should be formulated as simply as possible; the examination is not a test of language. Complex sentences, unusual grammar and double negatives should be avoided.
- (6) A question should comprise one complete positive proposition. No more than three different statements should appear among the suggested responses; otherwise the candidate may be able to deduce the correct answer by eliminating the unlikely combinations of statements.
- (7) Questions should have only one correct answer.
- (8) The correct answer should be absolutely correct and complete or, without doubt, the most preferable. Responses that are so essentially similar that the choice is a matter of opinion rather than a matter of fact should be avoided. The main interest in MCQs is that they can be quickly answered: this is not achieved if unreasonable doubt exists about the correct answer.
- (9) The incorrect alternatives should seem equally plausible to anyone ignorant of the subject. All alternatives should be clearly related to the question and of similar vocabulary, grammatical structure and length. In numerical questions, the incorrect answers should correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions; they should not be mere random numbers.
- (10) Calculators are not allowed during examination. Therefore, all calculations should be feasible without a calculator. Where a question involves calculations not feasible without a calculator, such as  $\sqrt{10}$ , then the question should specify the approximate value of  $\sqrt{10}$ .

(e) Essay question generation

The following principles should be observed when developing essay questions:

- (1) Questions should be written so as to be broad enough to be answered by candidates for any applicable licence (sub)categories and comply with the following general guidelines:
  - the question topic selected should be generic, applicable to mechanical as well as avionics licence categories and have a common technical difficulty level as indicated in Part-66 Appendix I or Appendix VII;
  - cover technology applicable to most areas of aircraft maintenance;
  - reflects common working practices;
  - it is neither type-specific nor manufacturer-specific and avoids subjects which are rarely found in practice;



- when drafting a question, there is need to ensure consideration is given to the limited practical experience that most candidates will have.
- (2) To make the questions and the marking procedures as consistent as possible, each question and model answer, with the required key areas (see below), should be reviewed independently by at least two examiners.
- (3) When drafting questions, the following should be considered:
- Each essay question will have a time allowance of 20 minutes.
  - A complete A4 side is provided for each question and answer; if required, the answer can be extended onto the reverse side of the page.
  - The question should be such that the answer expected will be at the level shown for that subject in the module syllabus.
  - The question should not be ambiguous but should seek a broad reply rather than be limited in scope for answer.
  - The question should lend itself to be written in a technical report style, in a logical sequence (beginning, middle and end), containing the applicable and relevant technical words needed in the answer.
  - No drawings/sketches should be needed to support the essay.
  - The question should be relevant to the category and level of difficulty listed in the syllabus, e.g. a description of a typical general aviation system may not be acceptable for a typical commercial aeroplane.
  - Subject to obvious constraints in relation to the topic being addressed, the question should have a strong bias towards the practical maintenance of a system/component and the answer should show an understanding of normal and deteriorated conditions of an aircraft and its systems.
  - Variations on alternative possible answers which have not been thought of, may have to be taken into account to aid the examiner when marking. If considered relevant, the model answer should be amended to include these new points.
- (4) Because of the difficulty in marking an essay answer using key points only, there is a need for the way in which the report was written to be assessed and taken into consideration.
- (5) The total points for each question will add up to 100 and will need to reflect both the combination of the technical (key point) element and the report style element.
- (6) Each key point will be graded upon its importance and have point weighting allocated to it. The total weight will represent 60 % of the mark.
- (7) Key points are the 'important elements' that may be knowledge- or experience-based and will include other maintenance orientated factors such as relevant safety precautions or legislative practices, if applicable. Excessive reference to the need for MM referral or safety checks may be considered wasteful.
- (8) The question answer will be analysed for the clarity and manner in which the essay report is presented and have a weighting allocated to it which will represent 40 % of the mark.



- (9) The answer should show the candidate's ability to express themselves in technical language. This includes readability of the language, basic grammar, and use of terminology.
- (10) The report should start in the beginning and have a logical process to reach a conclusion.
- (11) Supporting diagrams should not be encouraged, but if used, they should supplement the answer and not replace the need for a broad text answer.
- (12) The report should not be indexed, itemised or listed.
- (13) Within reason the candidate should not be penalised for incorrect spelling.
- (14) A zero mark should only be given in exceptional circumstances. Even if the student misunderstands the question and gives an answer to a different question, a sympathetic mark even if only for the report style should be given.
- (15) The two allocated marks should be added together and written into the answer paper.
- (16) If a question answer resulting in a borderline failure is principally due to 'written report errors,' the paper should be discussed, and the mark agreed if possible with another examiner.

### AMC1 147.A.135(b) Examination process

- (a) The examination manager should ensure that each examination is carried out by an appropriately approved examiner referred to in point 147.A.105(j).
- (b) The examination manager should allocate examiners to a particular examination, based on the organisation's manpower planning and examiners' privileges as detailed in the training authorisation referred to in point 147.A.105(l).

### AMC1 147.A.135(c) Examination process

- (a) The organisation may define the set of rules for the examination process in any manner acceptable to the competent authority e.g. code of conduct.
- (b) The set of rules for the examination process should be unambiguous and tailored to the organisation's procedures, personnel, students, and environment.

### AMC1 147.A.135(c)(3) Examination process

- (a) The organisation may develop the declaration of awareness and record the examinees acknowledgement in any manner acceptable to the competent authority.
- (b) The declaration of awareness may be a separate document or included in the examination material e.g. on the examination paper before the examinations subjects or electronic declaration displayed prior to commencing the computer-based examination.



- (c) In terms of reporting violations or other fraudulent activities, the declaration of awareness should clearly describe and may contain examples of:
- (1) the examinee's obligation to report the violations or other fraudulent activities in which they are involved e.g. offered examination material, received information containing examination data, discussions related to the purchase of examination material or correct answers to the examination;
  - (2) the encouragement to voluntarily report violations or fraudulent activities witnessed by the examinee e.g. exchange of examination material between personnel and examinees, or between examinees;
  - (3) the means and channels to report to the organisation e.g., to the examiner during the examination, or via a website portal, an email address, a direct line of communication to organisation's personnel prior to or after the examination for activities involving examinees, means to inform the examination manager and/or compliance manager and/or accountable manager of activities that involve the examiners;
  - (4) the right to report violations or fraudulent activities to the competent authority and the means to do so i.e. website portal, e-mail address, direct line of communication to competent authority personnel, as established by the competent authority;
  - (5) statement that no punitive measures may or will be taken against examinees for reporting such actions e.g. disqualification from the examination, prohibition to attend further examinations within the organisation.

## AMC1 147.A.135(j) Examination process

A 'controlled environment' means an environment where the following can be established and verified:

- (a) the identity of the students;
- (b) the proper conduct of the examination process;
- (c) the integrity of the examination process;
- (d) the security of the examination material.

### INVOLVEMENT OF APPLICANTS IN FRAUDULENT ACTIVITIES

An organisation receiving information regarding the ineligibility of an applicant to undertake an examination, either directly from the applicant through the means referred to in 147.A.130(b)(1) or from another Part-147 approved maintenance training organisation or a competent authority or any other source, should record and analyse such information, and take appropriate measures, either to prohibit the applicant from undertaking the examination and, if deemed necessary, to report the event to the competent authority, or to report the information as incorrect, and if applicable, to report the source as unreliable.

The organisation should ensure that any person involved in the violation of the examination rules or in any other event related to fraudulent actions will no longer be authorised to perform any duties



related to the activities in the scope of work of the organisation and take proportional and adequate measures in accordance with applicable regulations.

#### INVOLVEMENT OF ORGANISATION PERSONNEL IN FRAUDULENT ACTIVITIES

An organisation receiving information regarding the involvement of any of its nominated persons referred to in points 147.A.105(a), (b), and (c) or any of its instructors or examiners referred to in point 147.A.105(j) in the violation of examination rules or any other event related to fraudulent actions, from another Part-147 approved maintenance training organisation or a competent authority or any other source, should record and analyse such information, and take appropriate measures to ensure that the person will no longer be authorised to perform any duties related to the activities in the scope of work of the organisation.

'Take proportional and adequate measures in accordance with applicable regulations' means that if the organisation decides not to, or is otherwise unable to, end the (employment) contract of or agreement with the person involved in the violation of the examination rules or any other event related to fraudulent actions, it may retain the services of such person, nevertheless ensuring that such person immediately ceases any activity within the Part-147 approved maintenance training organisation.

The competent authority should ensure that management personnel, trainers, and examiners involved in the violation of the examination rules, or any other event related to fraudulent action will no longer be approved for a position within an approved maintenance training organisation or any similar role in any approved organisation e.g. instructor in Part-145 organisation or Part-21G organisation.

The organisation should, in concert with the above-mentioned measures for trainers and examiners involved in the violation of the examination rules or any other event related to fraudulent actions, immediately suspend the personnel authorisation pending the internal investigation, or directly revoke the personnel authorisation.

The organisation should inform the competent authority within 72 hours of such an event and provide any additional information considered relevant or requested by the competent authority within 1 month of the event or earlier within the period established by the competent authority, or report the information as incorrect, and if applicable, report the source as unreliable.

### ~~GM to 147.A.135 Examinations~~

~~The competent authority will determine when or if the disqualified examiner may be reinstated.~~

### 147.A.140 Maintenance training organisation exposition (MTOE)

- (a) The organisation shall ~~provide an exposition for use by the organisation describing the organisation and its procedures and containing~~ establish and maintain a maintenance training organisation exposition that includes, directly or by reference, all of the following information:
- (1) a statement signed by the accountable manager confirming that the maintenance training organisation will at all times work in accordance with this Annex and Annex III





- (Part-66), as applicable, and with the approved maintenance training organisation exposition. If the accountable manager is not the chief executive officer of the organisation, then the chief executive officer shall countersign the statement; ~~exposition and any associated manuals define the maintenance training organisation's compliance with this Part and shall be complied with at all times.~~
- (2)- the organisation's management policy and the related objectives referred to in point 147.A.110(a)(2);
- (23)- the title(s) and name(s) of the person(s) nominated in accordance with points 147.A.105(b) and (c);
- (34)- the duties and responsibilities of the person(s) ~~specified in point 2~~ nominated under points 147.A.105(b) and (c), including matters on which they may deal directly with the competent authority on behalf of the maintenance training organisation;
- (45)- an ~~maintenance training~~ organisation chart showing the accountability and associated ~~chains~~ lines of responsibility, established in accordance with point 147.A.110(a)(1), between all the persons referred to in points 147.A.105(a), (b) and (c); ~~of the person(s) specified in point (a)(2).~~
- (56)- a list of the trainers ~~ing instructors~~, ~~knowledge~~ examiners and ~~practical~~ assessors with their scope of authorisation;
- (7) a general description of the manpower resources as required by point 147.A.105(f);
- (68)- a general description of the ~~training and examination~~ facilities at each approved location; ~~located at each address specified in the maintenance training organisation's approval certificate, and if appropriate any other location, as required by point 147.A.145(b).~~
- (79)- a specification of the scope of work of the organisation that is relevant to the terms of approval as required by point 147.A.20; ~~a list of the maintenance training courses which form the extent of the approval.~~
- (10) the procedure that sets out the scope of changes not requiring prior approval and that describes how such changes will be managed and notified to the competent authority, as required by point 147.A.150(c);
- (811)- the procedure for amending the maintenance training organisation exposition; ~~the maintenance training organisation's exposition amendment procedure.~~
- (912)- the procedures specifying how the organisation ensures compliance with this Annex; ~~the maintenance training organisation's procedures, as required by point 147.A.130(a).~~
- (1013)- the ~~maintenance training~~ organisation's control procedure, as required by 147.A.145(ed), when authorised to conduct training, examination and assessments in locations different from those specified in point 147.A.145(ba);
- (1114)- a list of the locations pursuant to point 147.A.145(ba);
- (1215)- where applicable, a list of the subcontracted organisations referred to in point 147.A.145(c) and the description of the subcontracted services; ~~a list of organisations, if appropriate, as specified in point 147.A.145(d).~~



- (16) a list of the currently approved alternative means of compliance used by the organisation.
- (b) The initial issue of the maintenance training organisation exposition ~~maintenance training organisation's exposition and any subsequent amendments~~ shall be approved by the competent authority. It shall be amended as necessary so that it remains an up-to-date description of the organisation.
- (c) Amendments to the maintenance training organisation exposition shall be managed as set out in the procedures referred to in points (a)(10) and (a)(11). Any amendments that are not included in the scope of the procedure referred to in point (a)(10), as well as any amendments related to the changes listed in point 147.A.150(a), shall be approved by the competent authority. ~~Notwithstanding point (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).~~

## AMC1 147.A.140 Maintenance training organisation exposition

~~1. — A recommended format of the exposition is included in Appendix I.~~

- (a) Personnel should be familiar with those parts of the MTOE that are relevant to their tasks.
- (b) The organisation should designate the person responsible for monitoring and amending the MTOE, including associated procedures or manuals, in accordance with point 147.A.140(c).
- (c) The organisation may use electronic data processing (EDP) for the publication of the MTOE. Attention should be paid to the compatibility of the EDP systems with the necessary dissemination, both internally and externally, of the MTOE.
- (d) When information is provided by reference (e.g. separate document, manual, or electronic data file), the organisation should establish clear cross-reference to such documents or files in the MTOE and have procedures for the management of these documents or files.

~~2. — When the maintenance training organisation is approved in accordance with any other Part which also requires an exposition, the exposition required by the other Part may form the basis of the maintenance training organisation exposition in a combined document, as long as the other exposition contains the information required by 147.A.140 and a cross-reference index is included based upon Appendix I.~~

~~3. — When training or examination is carried out under the sub-contract control system the maintenance training organisation exposition should contain a specific procedure on the control of sub-contractors as per Appendix 1 item 2.18 plus a list of sub-contractors as required by 147.A.140(a)12 and detailed in Appendix I item 1.7.~~

~~4. — The competent authority may approve a delegated exposition approval system for all changes other than those affecting the approval.~~

## GM1 147.A.140 Maintenance training organisation exposition

- (a) The purpose of the MTOE is to:



- specify the scope of work and show how the organisation intends to comply with this Annex; and
  - provide all the necessary information and procedures for the personnel of the organisation to perform their duties.
- (b) Complying with its contents will ensure that the organisation remains in compliance with Part-147 and, as applicable, Part-66.

## AMC1 147.A.140(a) Maintenance training organisation exposition

This AMC provides an outline of the layout of an acceptable MTOE. Where an organisation uses a different format, for example, to allow the exposition to serve for more than one approval within the scope of Regulation (EU) 2018/1139, then the exposition should contain an index that shows where the subject matter can be found in the exposition.

### PART 1 — GENERAL

- 1.1. Statement by the accountable manager
- 1.2. Management policy and objectives
- 1.3. Management personnel
- 1.4. Duties and responsibilities of management personnel
- 1.5. Management organisation chart
- 1.6. List of instructors, examiners, and assessors
- 1.7. Manpower resources
- 1.8. General description of facilities at each location
- 1.9. Organisation's intended scope of work
- 1.10. Procedures for changes (including MTOE amendment) requiring prior approval
- 1.11. Procedures for changes (including MTOE amendment) not requiring prior approval
- 1.12. Procedure for alternative means of compliance (AltMoC)

### PART 2 — TRAINING PROCEDURES

- 2.1. Organisation and duration of training
- 2.2. Preparation of training material
- 2.3. Preparation of classrooms and equipment, and virtual training environment
- 2.4. Preparation of workshops/maintenance facilities and equipment
- 2.5. Conduct of training
- 2.6. Records of training
- 2.7. Storage of training records
- 2.8. Training in other than approved locations



- 2.9. Organisation of examinations
- 2.10. Security and preparation of examination material
- 2.11. Preparation of examination rooms and equipment
- 2.12. Conduct and markings of examinations
- 2.13. Conduct and markings of assessments
- 2.14. Records of examinations and assessments
- 2.15. Storage of examinations and assessments records
- 2.16. Training activities in locations other than the ones identified in the certificate
- 2.17. Preparation, control, and issue of Certificates of Recognition
- 2.18. Control of subcontractors

### **PART 3 — MANAGEMENT SYSTEM PROCEDURES**

- 3.1. Monitoring the quality of training activities and activity reports
- 3.2. Audit plan and procedures
- 3.3. Product audit and inspections
- 3.4. Audit findings and corrective action procedure
- 3.5. Investigations of suspicions of violation of the examination rules or any other fraudulent actions
- 3.6. Competency assessment of personnel
- 3.7. Instructors, examiners, and assessors qualifications, training, and authorisation
- 3.8. Compliance personnel qualifications, training, and authorisation
- 3.9. Personnel records
- 3.10. Concession control for deviations from the organisation's procedures
- 3.11. Management of external personnel
- 3.12. Management system record-keeping

### **PART 4 — SUPPORTING DOCUMENTS**

- 4.1. Sample documents
- 4.2. Syllabi
- 4.3. Cross-reference index
- 4.4. List of subcontractors

## **AMC1 147.A.140(a)(1) Maintenance training organisation exposition**

### **ACCOUNTABLE MANAGER STATEMENT**



Part 1 of the MTOE should include a statement signed by the accountable manager (and countersigned by the chief executive officer, if different), confirming that the MTOE and any associated manuals will be complied with at all times.

The accountable manager's exposition statement as specified under point 147.A.140(a)(1) should embrace the intent of the following paragraph — in fact, this statement may be used without amendment. Any modification to the statement should not alter the intent.

*'This exposition and any associated referenced manuals define the organisation and procedures upon which the Part-147 approval certificate is issued by (competent authority\*).*

*These procedures are endorsed by the undersigned and must be complied with, as applicable, when contracts or work orders are being progressed under the organisation approval certificate.*

*These procedures do not override the necessity of complying with any new or amended regulation published from time to time where these new or amended regulations are in conflict with these procedures.*

*It is understood that the approval of the organisation is based on the continuous compliance of the organisation with Part-147 and Part-66, as applicable, and with the organisation's procedures described in this exposition. The competent authority\* is entitled to limit, suspend or revoke the approval certificate if the organisation fails to fulfil the obligations imposed by Part-147 and Part-66, as applicable, or any conditions according to which the approval was issued.*

Signed .....

Dated .....

Accountable Manager and..... (quote position).....

Chief Executive Officer ...

For and on behalf of..... (quote organisation's name).....'

Note: Where it states ('competent authority\*'), please insert the actual name of the competent authority.

Whenever the accountable manager changes, it is important that the new accountable manager signs the statement at the earliest opportunity.

## 147.A.145 Privileges of the maintenance training organisation

(a) In accordance with the exposition, the organisation shall be entitled to carry out the following tasks:

(1) Provide any training activity defined in Appendix IV to this Annex for which it is approved at the locations identified in the certificate and in the exposition, as follows:

(i) basic training;

(ii) by derogation from point (i), part of the basic training to include both the basic knowledge theoretical training and examination element, and the basic knowledge practical training and assessment element, as applicable, specific to an aircraft



- maintenance licence (sub)category, solely in specific cases such as the extension of an aircraft maintenance licence, the conversion of certifying staff qualification referred to in point 66.A.70 and Subpart D of Section B of Annex III (Part-66), and the examination crediting referred to in point 66.A.25(e) and Subpart E of Section B of Annex III (Part-66);
- (iii) basic knowledge theoretical examination;
  - (iv) aircraft type training;
  - (v) part of the aircraft type training to include either the aircraft type theoretical training and examination element or the aircraft type practical training and assessment element;
  - (vi) part of the aircraft type training covering the differences between two different aircraft type ratings of the same manufacturer or between two aircraft maintenance licence categories for the endorsement with the same aircraft type rating;
  - (vii) aircraft type evaluation;
  - (viii) aircraft task training;
- (2) Issue certificates of recognition referred to in Appendix III to this Annex in respect of completion of the training activities described in point (a) in accordance with this Annex and Annex III (Part-66);
- (3) arrange for a limited range of training activities, which may not include any complete training activity, to be conducted by a subcontracted organisation that works under the management system of the organisation, subject to the conditions specified in the exposition;
- (4) Provide training activities for which it is approved at locations other than the ones identified in the certificate and the exposition, subject to the need for such training arising from the infeasibility of providing it at the approved locations or from the necessity of supporting occasional training activities, and subject to the following conditions:
- (i) the maximum number of sessions of training activities to be carried out in all such locations shall be limited to three sessions per oversight cycle of the organisation;
  - (ii) any training activity carried out in such locations beyond the limitation mentioned in point (i) shall require the approval of the location.
- (b) The privilege to carry out basic knowledge theoretical examinations referred to in point (a)(1)(iii) shall be dependent upon the organisation carrying out at least one training activity referred to in point (a)(1)(i) within two consecutive oversight cycles or at least one training activity referred to in point (a)(1)(ii) within one oversight cycle.
- (c) The privilege to carry out the training activities referred to in points (a)(1)(v) and (a)(1)(vi) shall be dependent upon the organisation carrying out at least one training activity referred to in point (a)(1)(iv) within one oversight cycle.



- (d) Failure to comply with points (b) and (c) shall result in the restriction of the associated privilege(s) through the limitation, suspension, or revocation of the certificate, as appropriate, in accordance with point 147.B.355.
- ~~(a) The maintenance training organisation may carry out the following as permitted by and in accordance with the maintenance training organisation exposition:~~
- ~~(i) basic training courses to the Annex III (Part 66) syllabus, or part thereof;~~
- ~~(ii) aircraft type/task training courses in accordance with Annex III (Part 66);~~
- ~~(iii) the examination of students who attended the basic or aircraft type training course at the maintenance training organisation;~~
- ~~(iv) the examination of students who did not attend the aircraft type training course at the maintenance training organisation;~~
- ~~(v) the examination of students who did not attend the basic training course at the maintenance training organisation, provided that:~~
- ~~(1) the examination is conducted at one of the locations identified in the approval certificate, or~~
- ~~(2) if performed at locations not identified in the approval certificate, as permitted by points (b) and (c), either~~
- ~~—— the examination is provided through a European Central Question Bank (ECQB), or~~
- ~~—— in the absence of an ECQB, the competent authority selects the questions for the examination;~~
- ~~(vi) the issue of certificates in accordance with Appendix III following successful completion of the approved basic or aircraft type training courses and examinations specified in points (a)(i), (a)(ii), (a)(iii), (a)(iv) and (a)(v), as applicable.~~
- ~~(b) Theoretical training, knowledge examinations, practical training and practical assessments may be carried out only at the locations identified in the approval certificate or at any location specified in the MTOE.~~
- ~~(c) By derogation to point (b), the maintenance training organisation may only conduct training, knowledge examinations and practical assessments in locations different from the point (b) locations in accordance with a control procedure specified in the maintenance training organisation exposition. Such locations need not be listed in the maintenance training organisation exposition.~~
- ~~(d) 1. The maintenance training organisation may subcontract the conduct of basic theoretical training, type training and related examinations to a non maintenance training organisation only when under the control of the maintenance training organisation quality system.~~
- ~~2. The subcontracting of basic theoretical training and examination is limited to Annex III (Part 66), Appendix I, Modules 1, 2, 3, 4, 5, 6, 8, 9 and 10.~~



3. — The subcontracting of type training and examination is limited to powerplant and avionics systems.
- (e) — An organisation may not be approved to conduct examinations unless approved to conduct the corresponding training.
- (f) — By derogation from point (e), an organisation approved to provide basic knowledge training or type training may also be approved to provide type examination in the cases where type training is not required.

## GM1 147.A.145(a)(1)(ii) Privileges of the organisation

### PART OF BASIC TRAINING

- (a) 'Part of basic training to include both the basic knowledge theoretical training and examination element, and the basic knowledge practical training and assessment element, as applicable' is intended to mean that the partial training does not cover the entire content of the basic training, but for the content that it does cover, it uses all training elements as applicable to the modules that form part of the corresponding basic training.
- (b) Part of the basic training for the extension of an aircraft maintenance licence is intended to mean the training required to obtain the knowledge (theoretical, practical, or both theoretical and practical, as applicable) identified as differences between the existing AML (sub)category (chosen as 'the source') and the AML (sub)category to be obtained ('the target').
- (c) Part of the basic training for the conversion of certifying staff qualification is intended to mean the training required to obtain the knowledge (theoretical, practical, or both theoretical and practical, as applicable) identified as differences between the certifying staff qualification (chosen as 'the source') and the applicable AML (sub)category to be obtained ('the target').
- (d) Part of the basic training resulting from the process of examination crediting is intended to mean the training required to obtain the knowledge (theoretical, practical, or both theoretical and practical, as applicable) identified as differences between the credited technical qualification (chosen as 'the source') and the applicable AML (sub)category to be obtained ('the target').
- (e) 'Solely in specific cases' is intended to include force majeure situations and other events outside the control of the student e.g. termination of activity of the AMTO, which would entail partial training with the former AMTO and partial training with another AMTO.

## AMC1 147.A.145(a)(3) Privileges of the organisation

### SUBCONTRACTING

- (a) Working under the management system of an organisation appropriately approved under Part-147 (subcontracting) refers to the case of one organisation, whether or not approved under Part-147, that carries out certain training activities (see point (c)(1)) under the approval certificate of a Part-147 organisation. In order to subcontract, the Part-147 organisation should have a procedure for the control of such subcontractors as described below.





(b) 'Limited range of training activities' is intended to mean:

(1) for basic training: either the basic knowledge theoretical training and examination element, or the basic knowledge practical training and assessment element, limited to modules 1, 2, 3, 4, 5, 6, 8, 9, and 10. Training should not be subcontracted without its corresponding examination or assessment. Examination or assessment should not be subcontracted without its corresponding training.

The reason for allowing the subcontracting of training modules 1, 2, 3, 4, 5, 6, 8, 9, and 10 only is that most of the related subjects can generally also be taught by training organisations not specialised in aircraft maintenance;

(2) for aircraft type training: either the aircraft type theoretical training and examination element limited to powerplant systems, or the aircraft type practical training and assessment element.

The reason for allowing the subcontracting to training on powerplant systems only is that the related subjects can generally also be imparted by certain organisations specialised in these domains such as the Type Certificate Holder of the powerplant. In such a case, the type training course should make clear how the interfaces with the airframe are addressed and by whom (the subcontracted organisation or the Part-147 organisation itself);

(3) aircraft type evaluation is not intended to be subcontracted;

(4) for aircraft task training: either the aircraft task theoretical training and examination element, or the aircraft task practical training and assessment element.

(c) FUNDAMENTALS OF SUBCONTRACTING UNDER PART-147

(1) The most common reasons for allowing an organisation approved under Part-147 to subcontract is to permit acceptance of certain training activities carried out by subcontractors when approvals by the competent authority of those subcontractors are not justified (e.g. limited scope of work, limited volume of training activities, limited number of potential customers, limited need in time) or when the subcontractors cannot demonstrate compliance with all elements of the regulation (e.g. no training facilities, staff not covering all training scope).

(2) When training is carried out under the management system of a Part-147 organisation, it means that for the duration of such training, the Part-147 approval has been temporarily extended to include the subcontractor. It therefore follows that all parts of the subcontractor (facilities, personnel, equipment and tools, components, training material and procedures) involved with the maintenance training organisation's students undergoing training activities should meet Part-147 requirements and the Part-147 organisation's MTOE for the duration of that training activity, and it remains the Part-147 organisation's responsibility to ensure that such requirements are satisfied.

(3) When subcontracting, the Part-147 organisation is not required to have complete facilities for the training activity that it needs to subcontract, but it should have its own expertise to determine whether the subcontractor meets the necessary standards. However, a Part-147 organisation cannot be approved unless it has in-house the facilities,



personnel, equipment and tools, components, training material, procedures and expertise to carry out the majority of the training activities for which it wishes to receive the approval.

- (4) A maintenance training organisation working outside the scope of its terms of approval is deemed to be not approved for the work considered. Such an organisation may in this circumstance operate only as a subcontractor under the management system and control of another organisation appropriately approved under Part-147.
- (5) Authorisation to subcontract is indicated by the competent authority approving the MTOE containing a specific procedure on the control of subcontractors as well as a list of subcontractors.

**(d) PART-147 PROCEDURES FOR THE CONTROL OF SUBCONTRACTORS**

- (1) A pre-audit procedure should be established whereby the Part-147 organisation should audit a prospective subcontractor to determine whether those services of the subcontractor that it wishes to use meet the intent of Part-147. This audit should be performed under the responsibility of the person responsible for compliance monitoring.
- (2) The Part-147 organisation needs to assess to what extent it will use the subcontractor resources (facilities included). The contract between the Part-147 organisation and the subcontractor will determine whether the Part-147 organisation requires its own training documentation, tools and equipment, and components to be used or, provided that they meet the requirements of Part-147, the subcontractor's facilities, equipment, and tools will be used.
- (3) Unless the subcontracted training activity can be fully inspected on receipt by the Part-147 organisation, it will be necessary for the Part-147 organisation to establish an MTOE procedure to control the subcontracted training activity (and associated supporting documents). The organisation will need to consider whether to use its own personnel or to authorise the subcontractor personnel for that control.
- (4) The certificate of recognition may be issued either by subcontractor staff holding a training authorisation issued by the Part-147 organisation in accordance with point 145.A.105 or by the Part-147 organisation training staff.
- (5) The subcontractor control procedure will need to address the relevant management system key processes such as compliance monitoring (see point 147.A.25). The procedure should ensure that records of all subcontractor audits and inspections, and the corresponding actions are kept, and provide information on when subcontractors are used. The procedure should include a clear revocation process for subcontractors that do not meet the Part-147 maintenance training organisation's requirements.
- (6) The Part-147 compliance monitoring staff will need to audit the subcontractor control function of the Part-147 organisation and to audit the subcontractors unless this task is already carried out by the subcontractor control function on behalf of the compliance monitoring function.



- (7) The contract between the Part-147 organisation and the subcontractor should contain a provision to ensure that access to the subcontractor is granted to any person authorised by the authorities specified in point 147.A.170.

### **AMC1-147.A.145(c) Distance learning via uniform resource locator (URL) addresses**

~~Distance training may also be delivered via uniform resource locator (URL) addresses. When delivering distance training, the learning location is the responsibility of the student and need not be controlled by the training organisation. Refer to 147.A.100(j).~~

~~Knowledge examinations may also be conducted by accessing the examination questions via uniform resource locator (URL) addresses, provided the knowledge examination environment is under the control of the maintenance training organisation.~~

### **AMC 147.A.145(d) Privileges of the maintenance training organisation**

- ~~1. When training or examination is carried out under the sub-contract control system it means that for the duration of such training or examination, the Part-147 approval has been temporarily extended to include the sub-contractor. It therefore follows that those parts of the sub-contractor's facilities, personnel and procedures involved with the Part-147 approved maintenance training organisation's students should meet requirements of Part-147 for the duration of that training or examination and it remains the Part-147 organisation's responsibility to ensure such requirements are satisfied.~~
- ~~2. The maintenance training organisation approved under Part-147 is not required to have complete facilities and personnel for training that it needs to sub-contract but it should have its own expertise to determine that the sub-contractor meets the Part-147 standards. Particular attention should be given to ensuring that the training that is delivered also meets the requirements of Part-66 and the aircraft technologies are appropriate.~~
- ~~3. The contract between the maintenance training organisation approved under Part-147 and the sub-contractor should contain:~~
  - ~~— a provision for the Agency and the competent authority to have right of access to the sub-contractor;~~
  - ~~— a provision for the sub-contractor to inform the Part-147 approved maintenance training organisation of any change that may affect its Part-147 approval, before any such change takes place.~~



## ~~GM 147.A.145(d) Privileges of the maintenance training organisation~~

- ~~1. The pre-audit procedure should focus on establishing compliance with the training and examination standards set out in Part-147 and Part-66.~~
- ~~2. The fundamental reason for allowing a maintenance training organisation approved under Part-147 to sub-contract certain basic theoretical training courses is to permit the approval of maintenance training organisations, which may not have the capacity to conduct training courses on all Part-66 modules.~~
- ~~3. The reason for allowing the subcontracting of training modules 1 to 6 and 8 to 10 only is, most of the related subjects can generally also be taught by training organisations not specialised in aircraft maintenance and the practical training element as specified in 147.A.200 does not apply to them. On the contrary, training modules 7 and 11 to 17 are specific to aircraft maintenance and include the practical training element as specified in 147.A.200. The intent of the 'limited subcontracting' option as specified in 147.A.145 is to grant Part-147 approvals only to those organisations having themselves at least the capacity to teach on aircraft maintenance specific matters.~~

## ~~GM 147.A.145(d)3 Privileges of the maintenance training organisation~~

~~In the case of type training and examination, the reason for allowing only subcontracting to powerplant and avionics systems is that the related subjects can generally also be imparted by certain organisations specialised in these domains such as the Type Certificate Holder of the powerplant or the OEMs of these avionics systems. In such a case, the type training course should make clear how the interfaces with the airframe are addressed and by whom (the subcontracted organisation or the Part-147 organisation itself).~~

## ~~AMC 147.A.145(f) Privileges of the maintenance training organisation~~

~~When an organisation approved to provide basic knowledge training or type training is also approved to provide type examination in the cases where type training is not required, appropriate procedures in the MTOE should be developed and approved, including:~~

- ~~— The development and the conduct of the type examination;~~
- ~~— The qualification of the examiners and their currency.~~

~~In particular, emphasis should be put when such an examination is not regularly conducted or when the examiners are not normally involved in aircraft or activities with technology corresponding to the aircraft type subject to examination. An example would be the case of an organisation providing basic knowledge training only for the B1.1 licence. This organisation should justify how they run type examinations for single piston engine helicopters in the case of a B1.4 licence.~~



## 147.A.150 Changes to the ~~maintenance training~~ organisation

- ~~(a) — The maintenance training organisation shall notify the competent authority of any proposed changes to the organisation that affect the approval before any such change takes place, in order to enable the competent authority to determine continued compliance with this Part and to amend if necessary the maintenance training organisation approval certificate.~~
- ~~(b) — The competent authority may prescribe the conditions under which the maintenance training organisation may operate during such changes unless the competent authority determines that the maintenance training organisation approval must be suspended.~~
- ~~(c) — Failure to inform the competent authority of such changes may result in suspension or revocation of the maintenance training organisation approval certificate backdated to the actual date of the changes.~~

(a) The following changes to the organisation shall require prior approval by the competent authority:

- (1) changes to the certificate, including the terms of approval of the organisation;
- (2) changes of the persons referred to in points 147.A.105(a), (b), and (c);
- (3) changes to the reporting lines between the personnel nominated in accordance with points 147.A.105(b) and (c), and the accountable manager;
- (4) the procedure as regards changes not requiring prior approval referred to in point (c);
- (5) additional locations of the organisation other than those that are subject to point 147.A.145(d).

(b) For the changes referred to in point (a) and for all other changes requiring prior approval in accordance with this Annex, the organisation shall apply for and obtain an approval issued by the competent authority. The application shall be submitted before such changes take place in order to enable the competent authority to determine that there is continued compliance with this Annex and to amend, if necessary, the organisation certificate and the related terms of approval that are attached to it.

The organisation shall provide the competent authority with any relevant documentation.

The change shall only be implemented upon the receipt of a formal approval from the competent authority in accordance with point 147.B.330.

The organisation shall operate under the conditions prescribed by the competent authority during such changes, as applicable.

(c) All changes not requiring prior approval shall be managed and notified to the competent authority as set out in the procedure referred to in point 147.A.140(a)(10).



## AMC1 147.A.150 Changes to the organisation

### APPLICATION TIME FRAMES

- (a) The application for a change to an organisation certificate should be submitted at least 30 working days before the date of the intended changes.
- (b) In the case of a planned change of a nominated person, the organisation should inform the competent authority at least 20 working days before the date of the proposed change.
- (c) Unforeseen changes should be notified at the earliest opportunity, in order to enable the competent authority to determine whether there is continued compliance with the applicable requirements, and to amend, if necessary, the organisation certificate and the related terms of approval.

## GM1 145.A.150 Changes to the organisation

### CHANGES REQUIRING OR NOT REQUIRING PRIOR APPROVAL

Point 147.A.150 is structured as follows:

- Point (a) introduces an obligation of prior approval (by the competent authority) for specific cases listed under (1) to (5).
- Point (b) address all instances (including (a)) where this Annex (Part-147) explicitly requires an approval by the competent authority. Changes relevant to these instances should be considered as changes requiring a prior approval (see list in GM1 147.A.150(b)), unless otherwise specified by this Annex (Part-147).
- Point (b) also indicates how all changes requiring prior approval should be handled.
- Point (c) introduces the possibility for the organisation to agree with the competent authority that certain changes to the organisation (other than those covered by (a) or (b)) can be implemented without prior approval depending on the compliance and performance of the organisation.

## GM1 145.A.150(a)(1) Changes to the organisation

### CHANGE OF THE NAME OF THE ORGANISATION

A change of the name requires the organisation to submit an application as a matter of urgency for a reissue of their certificate.

If this is the only change to report, the application can be accompanied by a copy of the documentation that was previously submitted to the competent authority under the previous name, as a means of demonstrating that the organisation complies with the applicable requirements.



## GM1 145.A.85(a)(2) Changes to the organisation

### CHANGE OF A NOMINATED PERSON

In accordance with point 147.A.150(a)(2), a change of a nominated person (see point 147.A.105) requires a prior approval. In case of an unplanned/unanticipated change, a deputy (such as the deputy referred to in point 147.A.105(b)) may ensure business continuity during the approval process of the new nominated person.

## GM1 145.A.85(b) Changes to the organisation

### CHANGES REQUIRING PRIOR APPROVAL (OTHER THAN THOSE COVERED BY POINT 147.A.150(a))

The following are examples of changes that require prior approval by the competent authority (other than those covered by point 147.A.150(a)), as specified in Part-147:

- (a) changes to the AltMoC (see point 147.A.180(b));
- (b) changes to the procedures to establish and control the competency of personnel (see point 147.A.150(i)).

## 147.A.155 Continued validity

~~(a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:~~

- ~~1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified in point 147.B.130; and~~
- ~~2. the competent authority being granted access to the organisation to determine continued compliance with this Annex (Part-147); and~~
- ~~3. the certificate not being surrendered or revoked.~~

~~(b) Upon surrender or revocation, the approval shall be returned to the competent authority.~~

The organisation's certificate shall remain valid subject to compliance with all of the following conditions:

- (a) the organisation remaining in compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts, taking into account the provisions of point 147.B.350 of this Annex related to the handling of findings;
- (b) the competent authority being granted access to the organisation as specified in point 145.A.170;
- (c) the certificate not being surrendered by the organisation or suspended or revoked by the competent authority as specified in point 147.B.355.



## 147.A.160 Findings and observations

- (a) ~~A level 1 finding is one or more of the following:~~
- ~~1. any significant non-compliance with the examination process which would invalidate the examination(s),~~
  - ~~2. failure to give the competent authority access to the organisation's facilities during normal operating hours after two written requests,~~
  - ~~3. the lack of an accountable manager,~~
  - ~~4. a significant non-compliance with the training process.~~
- (b) ~~A level 2 finding is any non-compliance with the training process other than level 1 findings.~~
- (c) ~~After receipt of notification of findings according to point 147.B.130, the holder of the maintenance training organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.~~

- (a) After the receipt of a notification of findings in accordance with point 147.B.350, the organisation shall:
- (1) identify the root cause(s) of, and contributing factor(s) to, the non-compliance;
  - (2) define a corrective action plan (to eliminate the findings and prevent their reoccurrence);
  - (3) demonstrate the implementation of the corrective action plan to the satisfaction of the competent authority.
- (b) The actions referred to in point (a) shall be performed within the period agreed with that competent authority in accordance with point 147.B.350.
- (c) The observations received in accordance with point 147.B.350(f) shall be given due consideration by the organisation. The organisation shall record the decisions taken in respect of those observations.

## AMC1 147.A.160 Findings and observations

### FINDING-RELATED CORRECTIVE ACTION PLAN AND IMPLEMENTATION

After receiving the notification of findings, the organisation should identify and define the actions for all findings to address the effects of the non-compliance and its root cause(s) and contributing factor(s).

Depending on the issues, the organisation may need to take immediate corrections.

The corrective action plan should:

- include the correction of the issue, corrective actions and preventive actions, as well as the planning to implement these actions;
- be timely submitted to the competent authority for acceptance before it is effectively implemented.





After receiving the acceptance of the corrective action plan from the competent authority, the organisation should implement the associated actions.

Within the agreed period, the organisation should inform the competent authority that the corrective action plan has been completed and should send the associated evidence, as requested by the competent authority.

## AMC2 147.A.160 Findings and observations

### DUE CONSIDERATION TO OBSERVATIONS

For each observation notified by the competent authority, the organisation should analyse the related issues and determine when actions are needed.

The handling of the observations may follow a process similar to the handling of the findings by the organisation.

The organisation should record the analysis and the outputs, such as the actions taken or the reasons for not taking actions.

## GM1 147.A.160 Findings and observations

### ROOT CAUSE ANALYSIS

(a) It is important that the analysis does not primarily focus on establishing who or what caused the non-compliance, but on why it was caused. Establishing the root cause(s) often requires an overarching view of the events and circumstances that led to it, to identify all the possible systemic and contributing factors (regulatory, technical, human factors, organisational factors, etc.) in addition to the direct factors.

(b) A narrow focus on single events or failures, or the use of a simple, linear model, such as a fault tree, to identify the chain of events that led to the non-compliance, may not properly reflect the complexity of the issue, and therefore there is a risk that important factors that must be addressed in order to prevent that a reoccurrence will be ignored.

Such an inappropriate or partial root cause analysis often leads to defining 'quick fixes' that only address the symptoms of the non-conformity. A peer review of the results of the root cause analysis may increase its reliability and objectivity.

## 147.A.170 Access

For the purpose of determining compliance with the relevant requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts, the organisation shall ensure that access to any facility, aircraft, document, records, data, procedures or to any other material relevant to its activity subject to certification, whether it is subcontracted or not, is granted to any person authorised by one of the following authorities:

- (a) the competent authority defined in point 147.1;
- (b) the authority performing the oversight tasks in accordance with point 147.B.300(d).



## 147.A.180 Means of compliance

- (a) An organisation may use any alternative means of compliance to establish compliance with this Regulation.
- (b) If an organisation wishes to use an alternative means of compliance, it shall, prior to using it, provide the competent authority with a full description. The description shall include any revisions to manuals or procedures that may be relevant, as well as an explanation indicating how compliance with this Regulation is achieved.

The organisation may use those alternative means of compliance subject to prior approval from the competent authority.

## GM1 147.A.180 Means of compliance

### GENERAL

- (a) Acceptable means of compliance (AMC), as referred to in Article 76(3) of Regulation (EU) 2018/1139, are a tool to standardise the demonstration of compliance and facilitate the verification activities of the competent authorities with Regulation (EU) 2018/1139 and its delegated and implementing acts. They are published by the Agency to achieve these objectives. Whereas the competent authorities and the regulated entities are not legally bound to use them, applying them is recommended.
- (b) If an organisation wishes to use means to comply with the Regulation different from the AMC established by EASA, that organisation may need to demonstrate compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts by using alternative means of compliance (AltMoC):
- (1) established by its competent authority — see GM1 147.B.120; or
  - (2) established by that organisation and approved by its competent authority — see point (c) below.

An AltMoC does not allow deviation from Regulation (EU) 2018/1139 and its delegated or implementing acts.

- (c) AltMoC established by an organisation and approved by its competent authority

An organisation wishing to use a different means of compliance than the one published by the Agency, can propose and implement an AltMoC only once the competent authority approves it. In this case, the organisation is responsible for demonstrating how that AltMoC establishes compliance with the Regulation.

This approval will be granted by its competent authority on an individual basis and restricted to that specific applicant. Other organisations wishing to use the same means of compliance should follow the AltMoC process (demonstrating compliance with the Regulation) and obtain individual approval from their competent authority.



## GM2 147.A.180 Means of compliance

### WHEN AN ALTERNATIVE MEANS OF COMPLIANCE IS NEEDED

When there is no EASA AMC for a certain requirement in the Regulation, the means of compliance proposed by the organisation to that point of the Regulation do not need to go through the AltMoC process. It is the responsibility of the competent authority to verify that compliance with the Regulation is met. However, in certain cases the organisation may propose, and the competent authority may agree, to have such means of compliance follow the AltMoC process.

When there is an EASA AMC, the AltMoC process is needed in the following (not exhaustive) cases:

- a means to comply with the Regulation is technically different in character to the AMC published by EASA;
- A Form is significantly different from the one proposed in the EASA AMC.

*Note: A Form required by the delegated and implementing acts cannot be changed.*

Examples of issues not considered to require an AltMoC process include, but are not limited to:

- editorial changes to an EASA AMC, as long as it does not change the intent of the AMC;
- transposing an EASA AMC into the organisational structure, organisational processes, or standard operating procedures with different wording and terminology customised to the organisation's environment, if this does not change the intent of the AMC and its associated level of safety.

## AMC1 147.A.180(b) Means of compliance

### DESCRIPTION SUPPORTING THE ALTERNATIVE MEANS OF COMPLIANCE

(a) The description of the AltMoC should include:

- (1) a summary of the AltMoC;
- (2) the content of the AltMoC;
- (3) a statement that compliance with the Regulation is achieved; and
- (4) in support of that statement, an assessment demonstrating that the AltMoC reaches an acceptable level of safety, taking into account the level of safety provided by the corresponding EASA AMC.

(b) All these elements describing the AltMoC form an integral part of the management system records to be kept in accordance with 147.A.125.



**SUBPART C — APPROVED-BASIC TRAINING-COURSE****147.A.200 ~~The approved b~~ Basic training-course**

- ~~(a) The approved basic training course shall consist of knowledge training, knowledge examination, practical training and a practical assessment.~~
  - ~~(b) The knowledge training element shall cover the subject matter for a category or subcategory aircraft maintenance licence as specified in Annex III (Part-66).~~
  - ~~(c) The knowledge examination element shall cover a representative cross section of subject matter from the point (b) training element.~~
  - ~~(d) The practical training element shall cover the practical use of common tooling/equipment, the disassembly/ assembly of a representative selection of aircraft parts and the participation in representative maintenance activities being carried out relevant to the particular Part-66 complete module.~~
  - ~~(e) The practical assessment element shall cover the practical training and determine whether the student is competent at using tools and equipment and working in accordance with maintenance manuals.~~
  - ~~(f) The duration of basic training courses shall be in accordance with Appendix I.~~
  - ~~(g) Notwithstanding point (f), in order to benefit from changes in training technologies and methods (theoretical training), or from credits specified in point 66.A.25(e) of Annex III (Part-66), the number of hours as established in Appendix I (Basic training course duration) may be amended provided that the syllabus content and schedule describe and justify the proposed changes. A procedure shall be included in the MTOE to justify those changes.~~
  - ~~(h) The duration of conversion courses between (sub)categories shall be determined through an assessment of the basic training syllabus and the related practical training needs.~~
- (a) Basic training shall consist of basic knowledge theoretical training and examination, and basic knowledge practical training and assessment.**
  - (b) Basic training shall be delivered in accordance with the provisions of point 147.A.132.**
  - (c) The basic knowledge theoretical training element shall cover the subject matter for an aircraft maintenance licence (sub)category as specified in Appendices I and VII to Annex III (Part-66).**
  - (d) The basic knowledge practical training element shall cover the subject matter for an aircraft maintenance licence (sub)category as specified in Appendices I and VII to Annex III (Part-66).**
  - (e) The basic knowledge practical training element shall be partially performed in an actual maintenance working environment.**
  - (f) The duration of basic training shall be determined in accordance with Appendix I to this Annex and specified in the exposition.**
  - (g) Notwithstanding point (f), the minimum duration of basic training as established in Appendix I to this Annex may be amended, in order to benefit from improved training methods and tools and new teaching technologies, or from credits specified in point 66.A.25(e) of Annex III (Part-**



66), provided that the syllabus content and schedule describe and justify the proposed changes, and subject to a control procedure included in the MTOE.

- (h) The duration of training for conversion from one aircraft maintenance licence (sub)category to another shall be determined through an assessment of the basic training requirements, subject to a control procedure described in the MTOE.

### AMC1 147.A.200(ba) ~~The approved b~~ Basic training-course

~~Each licence category or subcategory b~~ Basic training-course may be subdivided into modules or sub-modules of knowledge and theoretical training elements may be intermixed with the practical training elements subject to the required time-related requirements elements of points 147.A.200(e,f) and (f,g) being satisfied.

### AMC1 147.A.200(de) ~~The approved b~~ Basic training-course

- ~~1. Where the maintenance training organisation approved under Part 147 contracts the practical training element either totally or in part to another organisation in accordance with 147.A.100(d), the organisation in question should ensure that the practical training elements are properly carried out.~~
- ~~2. At least 30% of the practical training element should be carried out in an actual maintenance working environment.~~

The organisation should ensure that an appropriate amount of the practical training element is carried out in an actual maintenance working environment, but no less 30 % of the total allocated time.

### AMC1 147.A.200(f) ~~The approved basic training course~~

- ~~1. In order to follow pedagogical and human factors principles, the maximum number of training hours per day for the theoretical training should not be more than 6 hours. A training hour means 60 minutes of tuition excluding any breaks, examination, revision, preparation and aircraft visit. In exceptional cases, the competent authority may allow deviation from this standard when it is properly justified that the proposed number of hours follows pedagogical and human factors principles. These principles are especially important in those cases where:
 
  - ~~— Theoretical and practical training are performed at the same time;~~
  - ~~— Training and normal maintenance duty/apprenticeship are performed at the same time.~~~~
- ~~2. The minimum participation criteria for the trainee in order to meet the objectives of the basic training course should not be less than 90 % of the tuition hours or 95 % completion of the content for student-centred methods in a theoretical training course. Additional training may be provided by the training organisation for the trainee to meet the minimum participation criteria. If the minimum participation that is defined for the basic training course is not met, a certificate of recognition (CoR) should not be issued.~~



## AMC1 147.A.200(g) ~~The approved basic~~ Basic training course

Typical ~~conversion~~ durations for differences training necessary for the conversion from one AML (sub)category to another are given below:

- (a) The ~~approved basic differences~~ training ~~course~~ to qualify for conversion from ~~holding a Part-66 aircraft maintenance licence in~~ subcategory A1 to subcategory B1.1 or B2 should not be less than 1 600 hours and for conversion from ~~holding a Part-66 aircraft maintenance licence in~~ subcategory A1 to subcategory B1.1 combined with B2 should not be less than 2 200 hours. ~~The course and~~ should include ~~between 60 % and to~~ 70 % ~~basic~~ knowledge ~~theoretical~~ training.
- (b) The ~~approved basic differences~~ training ~~course~~ to qualify for conversion from ~~holding a Part-66 aircraft maintenance licence in~~ subcategory B1.1 to B2 or ~~from~~ category B2 to ~~subcategory~~ B1.1 should not be less than 600 hours, and should include ~~between 80% and to~~ 85% ~~basic~~ knowledge ~~theoretical~~ training.
- (c) The ~~approved basic differences~~ training ~~course~~ to qualify for conversion from ~~holding a Part-66 aircraft maintenance licence in~~ subcategory B1.2 to subcategory B1.1 should not be less than 400 hours, and should include ~~between 50% and to~~ 60% knowledge training.
- (d) The ~~approved basic differences~~ training ~~course~~ to qualify for conversion from ~~holding a Part-66 aircraft maintenance licence in~~ one subcategory A to another subcategory A should not be less than 70 hours, and should include ~~between 30% and to~~ 40% knowledge training.
- (e) The ~~approved basic differences~~ training ~~course~~ to qualify for conversion from ~~holding a Part-66 aircraft maintenance licence in~~ any subcategory A to category B2L (with any system rating) should not be less than 800 hours, and should include ~~between 60 % and to~~ 70 % of knowledge training.

## 147.A.205 Basic knowledge ~~theoretical~~ examinations

~~Basic knowledge examinations shall:~~

- ~~(a) be in accordance with the standard defined in Annex III (Part-66).~~
- ~~(b) be conducted without the use of training notes.~~
- ~~(c) cover a representative cross-section of subjects from the particular module of training completed in accordance with Annex III (Part-66).~~

The basic knowledge theoretical examination element shall:

- (a) be conducted to the standards described in Appendices II and VIII to Annex III (Part-66);
- (b) be conducted in accordance with points 147.A.132 and 147.A.135.



**AMC 147.A.205 Basic knowledge examinations**

~~The competent authority may accept that the maintenance training organisation approved under Part-147 can conduct examination of students who did not attend an approved basic course at the organisation in question.~~

**147.A.210 Basic knowledge practical assessment**

- ~~(a) Basic practical assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility.~~
- ~~(b) The student shall achieve an assessed pass with respect to point 147.A.200(e).~~

The basic knowledge practical assessment element shall:

- (a) be conducted as part of the basic training in a manner established by the organisation and described in its exposition;
- (b) be conducted to the standards described in Appendices I and VII to Annex III (Part-66);
- (c) be conducted in accordance with points 147.A.132 and 147.A.135.

**AMC 147.A.210(a) Basic practical assessment**

~~Where the maintenance training organisation approved under Part-147 contracts the practical training element either totally or in part to another organisation in accordance with 147.A.100(d) and chooses to nominate practical assessors from the other organisation, the organisation in question should ensure that the basic practical assessments are carried out.~~

**AMC1 147.A.210(bc) Basic practical assessment**

- (a) An assessed pass for each student should be granted when the practical assessor is satisfied that: ~~the student meets the criteria of 147.A.200(e). This means that~~
- (1) the student has demonstrated the capability to use relevant tools/equipment/test equipment as specified by the tool/equipment/test equipment manufacturer;
  - (2) the student has demonstrated ~~and~~ the use of maintenance manuals in that the student can carry out the required inspection/testing without missing any defects, can readily identify the location of components and is capable of correct removal/fitment/adjustment of such components.
- (b) The student is only required to carry out enough inspection/testing and component removal/fitment/adjustments to prove capability.
- (c) The student should also show an appreciation of the need to ensure clean working conditions and the observance of safety precautions for the ~~themselves, others, student and for~~ the product.



- (d) In addition, the student should demonstrate a responsible attitude in respect of ~~to~~ flight safety and airworthiness of the aircraft.
- (e) Appendix III to AMC to Part-66 provides criteria for the competence assessment performed by the designated assessors (and their qualifications).

## SUBPART D — AIRCRAFT TYPE/TASK TRAINING

### 147.A.300 Aircraft type/task training

~~A maintenance training organisation shall be approved to carry out Annex III (Part-66) aircraft type and/or task training subject to compliance with the standard specified in point 66.A.45.~~

- (a) Aircraft type training shall consist of aircraft type theoretical training and examination, and aircraft type practical training and assessment.
- (b) Aircraft type training shall be delivered in accordance with the provisions of point 147.A.132.
- (c) Aircraft type training shall be approved by the competent authority through the approval of the MTOE.
- (d) The aircraft type theoretical training and examination element shall cover the subject matter for an aircraft maintenance licence (sub)category as specified in Appendix III to Annex III (Part-66).
- (e) The aircraft type practical training and assessment element shall cover the subject matter for an aircraft maintenance licence (sub)category as specified in Appendix III to Annex III (Part-66).
- (f) The duration of aircraft type training shall be determined in accordance with Appendix III to Annex III (Part-66) and specified in the exposition.
- (g) The duration of training for differences between two different aircraft type ratings of the same manufacturer or between two aircraft maintenance licence categories for the endorsement with the same aircraft type rating shall be determined through an assessment of the aircraft type training requirements, subject to a control procedure described in the exposition.
- (h) By derogation from points (d) to (g), in the case of gas airship type ratings to be endorsed on a B2 or L5 category licence, aircraft type training shall be developed by the organisation to a standard approved by the competent authority in accordance with point 66.B.130.

### AMC1 147.A.300 Aircraft type/task training

- (a) Aircraft type training may be sub-divided in airframe and/or powerplant and/or avionics/electrical systems sections. ~~type training courses. A maintenance training organisation approved under Part-147 may be approved to conduct airframe type training only, powerplant type training only, avionics/electrical systems type training only or any combination thereof.~~
- (b) ~~1.~~ The Airframe type training course section of the aircraft type training means a type training course including all relevant aircraft structure and electrical and mechanical systems, excluding the powerplant.





- (c)2. The Ppowerplant section of the aircraft type training ~~type training course means a type training course on~~ includes the bare engine, including as well as the build-up to a quick engine change unit.
- (d)3. The interface of the engine/airframe systems should be addressed by either the airframe or powerplant sections of the aircraft type training. In some cases, such as for general aviation, it may be more appropriate to cover the interface during the airframe section of the aircraft type training course due to the large variety of aircraft that can have the same engine type installed.
- (e)4. The Avionics/electrical systems section of the aircraft type training ~~type training course means type training on~~ includes avionics and electrical systems covered by but not necessarily limited to ATA (Air Transport Association) chapters 22, 23, 24, 25, 27, 31, 33, 34, 42, 44, 45, 46, 73 and 77 or equivalent.
5. ~~For task training, MBT methods may be used.~~

## ~~147.A.305 Aircraft type examinations and task assessments~~

~~A maintenance training organisation approved in accordance with point 147.A.300 to conduct aircraft type training shall conduct the aircraft type examinations or aircraft task assessments specified in Annex III (Part 66) subject to compliance with the aircraft type and/or task standard specified in point 66.A.45 of Annex III (Part 66).~~



**SUBPART E — AIRCRAFT TYPE EVALUATION****147.A.400 Aircraft type evaluation**

- (a) Aircraft type evaluation shall consist of aircraft type theoretical examination and aircraft type practical assessment, specific to an entire aircraft maintenance licence (sub)category.
- (b) Aircraft type evaluation shall be performed in accordance with the provisions of point 147.A.132.
- (c) Aircraft type evaluation shall be approved by the competent authority through the approval of the MTOE.
- (d) Aircraft type evaluation shall be performed in accordance with the provisions of, and to the standard described in, Appendix III to Annex III (Part-66).
- (e) The aircraft type theoretical examination element shall cover the subject matter for an aircraft maintenance licence (sub)category as specified in Appendix III to Annex III (Part-66).
- (f) The aircraft type practical assessment element shall cover the subject matter for an aircraft maintenance licence (sub)category as specified in Appendix III to Annex III (Part-66).



**SUBPART F — AIRCRAFT TASK TRAINING****147.A.500 Aircraft task training**

- (a) Aircraft task training shall consist of aircraft task theoretical training and examination, and aircraft task practical training and assessment, specific to an entire aircraft maintenance licence A (sub)category.
- (b) Aircraft task training shall be performed in accordance with the provisions of point 147.A.132.
- (c) Aircraft task training shall be performed in accordance with the provisions of, and to the standard described in, point 145.A.35.
- (c) The aircraft task theoretical training and examination elements shall be appropriate to the aircraft type(s) and, when applicable, the aircraft maintenance task(s) required by the approved maintenance organisation.
- (d) The aircraft task practical training and assessment elements shall be appropriate to the aircraft type(s) and, when applicable, the aircraft maintenance task(s) required by the approved maintenance organisation.



## ~~SECTION B — PROCEDURES FOR COMPETENT AUTHORITIES~~

### ~~SUBPART A — GENERAL~~

#### ~~147.B.05 Scope~~

~~This section establishes the administrative requirements to be followed by the competent authorities in charge of the application and the enforcement of Section A of this Part.~~

#### ~~147.B.10 Competent Authority~~

##### ~~(a) — General~~

~~The Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of certificates under this Annex (Part-147). This competent authority shall establish documented procedures and an organisational structure.~~

##### ~~(b) — Resources~~

~~The competent authority shall be appropriately staffed to carry out the requirements of this Part.~~

##### ~~(c) — Procedures~~

~~The competent authority shall establish procedures detailing how compliance with this Annex (Part-147) is accomplished.~~

~~The procedures shall be reviewed and amended to ensure continued compliance.~~

##### ~~(d) — Qualification and training~~

~~All staff involved in approvals related to this Annex must:~~

- ~~1. — Be appropriately qualified and have all necessary knowledge, experience and training to perform their allocated tasks.~~
- ~~2. — Have received training and continuation training on Annex III (Part-66) and Annex IV (Part-147) where relevant, including its intended meaning and standard.~~

#### ~~AMC 147.B.10(a) Competent authority~~

- ~~1. — In deciding upon the required organisational structure, the competent authority should review the number of certificates to be issued, the number and size of potential Part-147 approved maintenance training organisations within that Member State, as well as the level of civil aviation activity, number and complexity of aircraft and the size of the Member State's aviation industry.~~



- ~~2. The competent authority should retain effective control of important surveillance functions and not delegate them in such a way that Part-147 organisations, in effect, regulate themselves in airworthiness matters.~~
- ~~3. The set up of the organisational structure should ensure that the various tasks and obligations of the competent authority are not relying on individuals. That means that a continuing and undisturbed fulfilment of these tasks and obligations of the competent authority should also be guaranteed in case of illness, accident or leave of individual employees.~~

### **AMC1 147.B.10(b) Competent authority**

- ~~1. competent authority surveyors should have:
  - ~~1.1. practical experience and expertise in the application of aviation safety standards and safe operating practices;~~
  - ~~1.2. comprehensive knowledge of:
    - ~~(a) relevant parts of implementing rules, certification specifications and guidance material;~~
    - ~~(b) the competent authority's procedures;~~
    - ~~(c) the rights and obligations of a surveyor;~~
    - ~~(d) quality systems;~~
    - ~~(e) continuing airworthiness management.~~~~
  - ~~1.3. training on auditing techniques.~~~~
- ~~2. five years relevant work experience to be allowed to work as a surveyor independently. This may include experience gained during training to obtain the 1.5 qualification.~~
- ~~3. a relevant engineering degree or an aircraft maintenance or training qualification with additional education. 'relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components.
  - ~~3.1. knowledge of a relevant sample of aircraft types~~
  - ~~3.2. knowledge of maintenance training standards~~
  - ~~3.3. training methods and technologies.~~~~
- ~~4. In addition to technical competency, surveyors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.~~
- ~~5. A programme for continuation training should be developed that ensures that the surveyors remain competent to perform their allocated tasks.~~

### **AMC 147.B.10(c) Competent authority**

~~The documented procedures should contain the following information:~~



- ~~(a) The Member State's designation of the competent authority(ies).~~
- ~~(b) The title(s) and name(s) of the manager(s) of the competent authority and their duties and responsibilities.~~
- ~~(c) Organisation chart(s) showing associated chains of responsibility of the senior persons.~~
- ~~(d) A procedure defining the qualifications for staff together with a list of staff authorised to sign certificates.~~
- ~~(e) A general description of the facilities.~~
- ~~(f) Procedures specifying how the competent authority(ies) ensure(s) compliance with Part 147.~~

### **147.B.20 Record-keeping**

- ~~(a) The competent authority shall establish a system of record-keeping that allows adequate traceability of the process to issue, renew, continue, vary, suspend or revoke each approval.~~
- ~~(b) The records for the oversight of maintenance training organisations shall include as a minimum:
  - ~~1. the application for an organisation approval.~~
  - ~~2. the organisation approval certificate including any changes.~~
  - ~~3. a copy of the audit program listing the dates when audits are due and when audits were carried out.~~
  - ~~4. continued oversight records including all audit records.~~
  - ~~5. copies of all relevant correspondence.~~
  - ~~6. details of any exemption and enforcement actions.~~
  - ~~7. any report from other competent authorities relating to the oversight of the organisation.~~
  - ~~8. organisation exposition and amendments.~~~~
- ~~(c) The minimum retention period for the point (b) records shall be four years.~~

### **AMC 147.B.20 Record-keeping**

- ~~1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organized in a consistent way throughout the competent authority (chronological, alphabetical order, etc.).~~
- ~~2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.~~
- ~~3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware or software changes take place special care should be taken that all necessary data continues to be accessible at least through the full period specified in 147.B.20.~~



## 147.B.25 Exemptions

- (a) — ~~The competent authority may exempt a State education department school from:~~
- ~~1. — being an organisation as specified in point 147.A.10.~~
  - ~~2. — having an accountable manager, subject to the limitation that the department appoint a senior person to manage the training organisation and such person has a budget sufficient to operate the organisation to the standard of this Annex (Part 147).~~
  - ~~3. — having recourse to the independent audit part of a quality system subject to the department operating an independent schools inspectorate to audit the maintenance training organisation at the frequency required by this Part.~~
- (b) — ~~All exemptions granted in accordance with Article 71(1) of Regulation (EU) 2018/1139 shall be recorded and retained by the competent authority.~~



## ~~SUBPART B — ISSUE OF AN APPROVAL~~

~~This Subpart provides the requirements to issue or vary the maintenance training organisation approval.~~

### ~~147.B.110 Procedure for approval and changes to the approval~~

- ~~(a) Upon receipt of an application, the competent authority shall:
  - 1. review the maintenance training organisation exposition; and
  - 2. verify the organisation's compliance with the requirement of Annex IV (Part 147).~~
- ~~(b) All findings identified shall be recorded and confirmed in writing to the applicant.~~
- ~~(c) All findings shall be closed in accordance with point 147.B.130 before the approval is issued.~~
- ~~(d) The reference number shall be included on the approval certificate in a manner specified by the Agency.~~

### ~~GM to 147.B.110 Procedure for approval and changes to the approval~~

- ~~1. A meeting should be arranged between the applicant and the Member State who issue Part 147 approvals to determine if the applicant's training activities justify the investigation for issue of Part 147 approval and to ensure that the applicant understands what needs to be done for Part 147 approval. This meeting is not intended to establish compliance but rather to see if the activity is a Part 147 activity.~~
- ~~2. Assuming that the applicant's activities come within the scope of Part 147 approval, instructions should be sent to the competent authority staff requesting that an audit of the applicant be carried out and when satisfied that compliance has been established, a recommendation for the issue of approval should be submitted to the competent authority staff who grant approval unless these are the same staff. The competent authority should determine how and by whom the audit shall be conducted. For example, if the applicant is a large training organisation, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single person audits is most appropriate for the particular situation. A further consideration in the case of a combined Part 145/147 organisation is the possibility to combine the audits.~~
- ~~3. Where it is intended that the maintenance training organisation may conduct training and examinations away from the maintenance training organisation address(es) in accordance with 147.A.145(c), then a sample audit should be carried out by the competent authority from time to time of the process to ensure that procedures are followed. For practical reasons such sample audits will need to be carried out when training is being conducted away from the maintenance training organisation address(es).~~





- ~~4. The auditing surveyor should ensure that they are always accompanied throughout the audit by a senior member of the organisation making application for Part-147 approval. Normally this should be the proposed quality manager. The reason for being accompanied is to ensure that the organisation is fully aware of any findings during the audit. In any case, the proposed quality manager/senior member of the organisation should be debriefed at the end of the audit visit on the findings made during the audit.~~
- ~~5. There will be occasions when the auditing surveyor may find situations in the applicant's organisation on which he/she is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time of audit and the fact that the situation will be reviewed before a decision is made. The organisation should be informed of the decision within 2 weeks of the audit visit in writing if the decision is a confirmation of non-compliance. If the decision is a finding of being in compliance, a verbal confirmation to the organisation will suffice.~~
- ~~6. A change of name of the maintenance training organisation requires the organisation to submit a new application as a matter of urgency stating that only the name of the organisation has changed including a copy of the organisation exposition with the new name. Upon receipt of the application and the organisation exposition, the competent authority should reissue the approval certificate valid only up to the current expiry date.~~
- ~~7. A name change alone does not require the competent authority to audit the organisation, unless there is evidence that other aspects of the maintenance training organisation have changed.~~
- ~~8. A change of accountable manager requires the maintenance training organisation to submit such fact to the competent authority as a matter of urgency together with the amendment to the accountable manager exposition statement.~~
- ~~9. A change of any of the senior personnel specified in 147.A.105(b) requires the maintenance training organisation to submit a Form 4 in respect of the particular person. If satisfied that the qualifications and experience meet the standard required by Part-147, the competent authority should indicate acceptance in writing to the maintenance training organisation.~~
- ~~10. A change in the maintenance training organisation's exposition requires the competent authority to establish that the procedures specified in the exposition are in compliance with Part-147 and then to establish if these are the same procedures intended for use within the training facility.~~
- ~~11. Any change of location of the maintenance training organisation requires the organisation to make a new application to the competent authority together with the submission of an amended exposition. The competent authority should follow the procedure specified in 147.B.110(a) and (b) in so far as the change affects such procedure before issuing a new Part-147 approval certificate.~~
- ~~12. The complete or partial reorganisation of a training organisation should require the re-audit of those elements that have changed.~~
- ~~13. Any additional basic or aircraft type training courses requires the maintenance training organisation to make a new application to the competent authority together with the~~



~~submission of an amended exposition. For basic training extensions, an additional sample of new examination questions relevant to the modules associated with the extension being sought will be required to be submitted. The competent authority should follow the procedure of paragraph 11 in so far as the change affects such procedures unless the competent authority is satisfied that the maintenance training organisation has a well-controlled procedure to qualify such change when it is not necessary to conduct the audit elements of the paragraph 11 procedure.~~

### ~~AMC 147.B.110(a) Procedure for approval and changes to the approval~~

- ~~1. The audit should be conducted on the basis of checking the facility for compliance, interviewing personnel and sampling any relevant training course for its conduct and standard.~~
- ~~2. The audit report should be made on an EASA Form 22 (see appendix III).~~

### ~~AMC 147.B.110(b) Procedure for approval and changes to the approval~~

~~The date each finding was rectified should be recorded together with the reference document.~~

### ~~147.B.120 Continued validity procedure~~

- ~~(a) Each organisation shall be completely audited for compliance with this Annex (Part-147) at periods not exceeding 24 months. This shall include the monitoring of at least one training course and one examination performed by the maintenance training organisation.~~
- ~~(b) Findings shall be processed in accordance with point 147.B.130.~~

### ~~AMC 147.B.120(a) Continued validity procedure~~

- ~~1. Audits should be conducted to ensure the continuity of the approval; it is not necessary to sample all basic and type training courses, but the competent authority should sample, as appropriate, one basic and one type training course to establish that training is conducted in an appropriate manner. Nevertheless, the duration of the sampling for each course should not be less than 3 hours. Where no training course is being conducted during the audit, arrangements should be made to return at a later date to sample the conduct of a training course.~~
- ~~2. It is not necessary to sample all examinations associated with a training course but the competent authority should sample, as appropriate, one basic and one type training course examination.~~



## ~~147.B.125 Maintenance training organisation approval certificate~~

The maintenance training organisation approval certificate format shall be as detailed in Appendix II.

## ~~147.B.130 Findings~~

- ~~(a) Failure to complete the rectification of any level 1 finding within three days of written notification shall entail revocation, suspension or limitation by the competent authority, of the maintenance training organisation approval in whole or in part.~~
- ~~(b) Action shall be taken by the competent authority to revoke, limit or suspend in whole or part the approval in case of failure to comply within the time scale granted by the competent authority in the case of a level 2 finding.~~

## ~~AMC 147.B.130(b) Findings~~

- ~~1. In the case of a level 2 finding, the competent authority may give up to six month notice of the need for rectification. Dependent upon the seriousness of the level 2 finding(s) the competent authority may choose a notice period less than six months.~~
- ~~2. When the competent authority chooses to allow six months, the initial notification should be of three month duration to the quality manager followed by the final three month notice to the accountable manager.~~



## ~~SUBPART C — REVOCATION, SUSPENSION AND LIMITATION OF THE MAINTENANCE TRAINING ORGANISATION APPROVAL~~

### ~~147.B.200 Revocation, suspension and limitation of the maintenance training organisation approval~~

The competent authority shall:

- ~~(a) — suspend an approval on reasonable grounds in the case of potential safety threat; or~~
- ~~(b) — suspend, revoke or limit an approval pursuant to 147.B.130.~~



## SECTION B — AUTHORITY REQUIREMENTS

### 147.B.005 Scope

This section establishes the conditions for conducting the certification, oversight, and enforcement tasks as well as the administrative and management system requirements to be followed by the competent authority that is responsible for the implementation and enforcement of Section A.

### 147.B.115 Oversight documentation

The competent authority shall provide all the legislative acts, standards, rules, technical publications and related documents to the relevant personnel in order to allow them to perform their tasks and to discharge their responsibilities.

### 147.B.120 Means of compliance

- (a) The Agency shall develop acceptable means of compliance (“AMC”) that may be used to establish compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (b) Alternative means of compliance may be used to establish compliance with this Regulation.
- (c) Competent authorities shall inform the Agency of any alternative means of compliance used by organisations under their oversight or by themselves for establishing compliance with this Regulation.

### GM1 147.B.120 Means of compliance

#### ALTERNATIVE MEANS OF COMPLIANCE — GENERAL

- (a) A competent authority may establish means to comply with the Regulation different from the AMC established by EASA.

In that case, the competent authority is responsible for demonstrating how these alternative means of compliance (AltMoC) establish compliance with the Regulation.

- (b) AltMoC used by a competent authority, or by an organisation under its oversight, may be used by other competent authorities, or another organisation, only if processed again in accordance with respectively point 147.B.120 and point 147.A.180.
- (c) AltMoC issued by the competent authority may cover the following cases:
  - AltMoC to be used by organisations under the oversight of the competent authority and made available to these organisations;
  - AltMoC to be used by the authority itself to discharge its responsibilities.



**AMC1 147.B.120(b);(c) Means of compliance****PROCESSING THE ALTERNATIVE MEANS OF COMPLIANCE**

To meet the objective of points (b) and (c) of point 147.B.120:

- (a) the competent authority should establish the means to consistently evaluate over time that all the AltMoC used by itself or by organisations under its oversight allow for the establishment of compliance with the Regulation.
- (b) if the competent authority issues AltMoC for itself or for the organisations under its oversight, it should:
  - make them available to all relevant organisations;
  - notify the Agency as soon as the AltMoC is issued, including the information described in point (d) below.
- (c) the competent authority should evaluate the AltMoC proposed by an organisation by analysing the documentation provided and, if considered necessary, inspecting the organisation.

When the competent authority finds that the AltMoC is in accordance with the Regulation, it should:

  - notify the applicant that the AltMoC is approved;
  - indicate that this AltMoC may be implemented, and agree when the MOE is to be amended; and
  - notify the Agency as soon as the AltMoC is approved, including the information described in point (d) below.
- (d) the competent authority should provide the Agency with the following information:
  - a summary of the AltMoC;
  - the content of the AltMoC;
  - a statement that compliance with the Regulation is achieved; and
  - in support of that statement, an assessment demonstrating that the AltMoC reaches an acceptable level of safety, taking into account the level of safety provided by the corresponding EASA AMC.

All these elements describing the AltMoC form an integral part of the records to be kept in accordance with 147.B.220.

**GM1 147.B.120(b);(c) Means of Compliance****CASE WHERE THE REGULATION HAS NO CORRESPONDING EASA AMC**

When there is no EASA AMC for a certain requirement in the Regulation, the competent authority may choose to develop national guides or other types of documents to help the organisations under its oversight in compliance demonstration. The competent authority may inform the Agency, so that such



guides or other documents may later be considered for transposition into an AMC published by the Agency through the Agency rulemaking process.

## 147.B.125 Information to the Agency

The competent authority of the Member State shall notify the Agency in case of any significant problems with the implementation of Regulation (EU) 2018/1139 and its delegated and implementing acts within 30 days from the time the authority became aware of the problems.

## AMC1 147.B.125 Information to the Agency

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

Each competent authority should appoint a coordinator to act as the contact point for the exchange of safety-significant information between the competent authority and the Agency.

## 147.B.135 Immediate reaction to a safety problem

- (a) The competent authority shall implement a system to appropriately collect, analyse and disseminate safety information.
- (b) The Agency shall implement a system to appropriately analyse any relevant safety information received and, without undue delay, provide the relevant authority of the Member States and the Commission with any information, including recommendations or corrective actions to be taken, that is necessary for them to react in a timely manner to a safety problem involving products, parts, appliances, persons or organisations that are subject to Regulation (EU) 2018/1139 and its delegated and implementing acts.
- (c) Upon receiving the information referred to in points (a) and (b), the competent authority shall take adequate measures to address the safety problem.
- (d) The competent authority shall immediately notify measures taken under point (c) to all persons or organisations which need to comply with them under Regulation (EU) 2018/1139 and its delegated and implementing acts. The competent authority shall also notify those measures to the Agency and, when combined action is required, to the other Member States concerned.

## 147.B.200 Management system

- (a) The competent authority shall establish and maintain a management system, including as a minimum:
  - (1) documented policies and procedures to describe its organisation, the means and methods for establishing compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts. The procedures shall be kept up to date, and serve as the basic working documents within that competent authority for all its related tasks;



- (2) a sufficient number of personnel to perform its tasks and discharge its responsibilities. A system shall be in place to plan the availability of personnel in order to ensure the proper completion of all tasks;
  - (3) personnel that are qualified to perform their allocated tasks and that have the necessary knowledge and experience and receive initial and recurrent training to ensure continuing competency;
  - (4) adequate facilities and office accommodation for personnel to perform their allocated tasks;
  - (5) a function to monitor the compliance of the management system with the relevant requirements, and the adequacy of the procedures, including the establishment of an internal audit process and a safety risk management process. Compliance monitoring shall include a feedback system of audit findings to the senior management of the competent authority to ensure the implementation of corrective actions as necessary;
  - (6) a person or group of persons having a responsibility to the senior management of the competent authority for the compliance monitoring function.
- (b) The competent authority shall, for each field of activity, including the management system, appoint one or more persons with the overall responsibility for the management of the relevant task(s).
- (c) The competent authority shall establish procedures for the participation in a mutual exchange of all necessary information and assistance with any other competent authorities concerned, whether from the same Member State or from other Member States, including on:
- (1) all findings raised, and any follow-up actions taken as a result of the oversight of persons and organisations that carry out activities in the territory of a Member State, but certified by the competent authority of another Member State or by the Agency;
  - (2) information stemming from reporting as required by 147.A.110(a)(6).
- (d) A copy of the procedures related to the management system and their amendments shall be made available to the Agency for the purpose of standardisation.

## AMC1 147.B.200 Management system

### ORGANISATIONAL STRUCTURE

- (a) In deciding upon the required organisational structure, the competent authority should review:
- (1) the number of certificates to be issued, and the number and size of the potential Part-147 approved maintenance training organisations within that Member State;
  - (2) the possible use of qualified entities and of the resources of the competent authorities of other Member States to fulfil the continuing oversight obligations;
  - (3) the level of civil aviation activity, the number and complexity of the aircraft, and the size of the Member State's aviation industry; and
  - (4) the potential growth of activities in the field of civil aviation.





- (b) The competent authority should retain effective control of the important surveillance functions and should not delegate them in such a way that Part-147 organisations, in effect, regulate themselves in airworthiness matters.
- (c) The set-up of the organisational structure should ensure that the various tasks and obligations of the competent authority do not solely rely on individuals. The continuous and undisturbed fulfilment of these tasks and obligations of the competent authority should also be guaranteed in case of illness, accidents or leave of individual employees.

## AMC2 147.B.200 Management system

### GENERAL

- (a) The competent authority designated by each Member State should be organised in such a way that:
  - (1) there is specific and effective management authority in the conduct of all the relevant activities;
  - (2) the functions and processes described in the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts, AMC, Certification Specifications (CSs), and Guidance Material (GM) are properly implemented;
  - (3) the competent authority's policy, organisation, and operating procedures for the implementation of the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts are properly documented and applied;
  - (4) all the competent authority's personnel who are involved in the related activities are provided with training where necessary;
  - (5) specific and effective provision is made for communicating and interfacing as necessary with EASA and the competent authorities of other Member States; and
  - (6) all the functions related to implementing the applicable requirements are adequately described.
- (b) A general policy in respect of the activities related to the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts should be developed, promoted, and implemented by the manager at the highest appropriate level; for example, the manager at the top of the functional area of the competent authority that is responsible for such activities.
- (c) Appropriate steps should be taken to ensure that the policy is known and understood by all the personnel involved, and all the necessary steps should be taken to implement and maintain the policy.
- (d) The general policy, whilst also satisfying the additional national regulatory responsibilities, should, in particular, take into account:
  - (1) the provisions of Regulation (EU) 2018/1139;
  - (2) the provisions of the applicable implementing rules and their AMC, CSs, and GM;
  - (3) the needs of industry; and



- (4) the needs of EASA and of the competent authority.
- (e) The policy should define specific objectives for the key elements of the competent authority organisation and processes for implementing the related activities, including the corresponding control procedures and the measurement of the achieved standard.

## AMC1 147.B.200(a)(1) Management system

### DOCUMENTED POLICIES AND PROCEDURES

- (a) The various elements of the organisation involved with the activities related to Regulation (EU) 2018/1139 and its delegated and implementing acts should be documented in order to establish a reference source for the establishment and maintenance of this organisation.
- (b) The documented procedures should be established in a way that facilitates their use. They should be clearly identified, kept up to date, and made readily available to all the personnel who are involved in the related activities.
- (c) The documented procedures should cover, as a minimum, all of the following aspects:
  - (1) policies and objectives;
  - (2) the organisational structure;
  - (3) responsibilities and the associated authority;
  - (4) procedures and processes;
  - (5) internal and external interfaces;
  - (6) internal control procedures;
  - (7) the training of personnel;
  - (8) cross-references to associated documents;
  - (9) assistance from other competent authorities or EASA (where required).
- (d) It is likely that the information may be held in more than one document or series of documents, and suitable cross-referencing should be provided. For example, the organisational structure and job descriptions are not usually in the same documentation as the detailed working procedures. In such cases, it is recommended that the documented procedures should include an index of cross references to all such other related information, and the related documentation should be readily available when required.



**GM1 147.B.200(a)(2) Management system****SUFFICIENT PERSONNEL**

- (a) This GM on the determination of the required personnel is limited to the performance of certification and oversight tasks, excluding any personnel who are required to perform tasks that are subject to any national regulatory requirements.
- (b) The elements to be considered when determining who are the required personnel and planning their availability may be divided into quantitative and qualitative elements:
- (1) Quantitative elements
    - (i) the estimated number of initial certificates to be issued;
    - (ii) the number of organisations to be certified by the competent authority;
    - (iii) the estimated number of subcontracted organisations used by certified organisations.
  - (2) Qualitative elements
    - (i) the size, nature, and complexity of the activities of certified organisations, taking into account:
      - (A) the privileges of each organisation;
      - (B) the types of approval and the scopes of approval;
      - (C) possible certification to industry standards;
      - (D) the number of personnel; and
      - (E) the organisational structure and the existence of subsidiaries;
    - (ii) the safety priorities identified;
    - (iii) the results of past oversight activities, including audits, inspections and reviews, in terms of risks and regulatory compliance, taking into account:
      - (A) the number and the levels of findings;
      - (B) the time frame for implementation of corrective actions; and
      - (C) the maturity of the management systems implemented by organisations, and their ability to effectively manage safety risks; and
    - (iv) the size and complexity of the Member State's aviation industry, and the 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 the 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 number of new certificates to be issued for each planning period; and
  - (3) the number of changes to existing certificates to be processed for each planning period.



- (d) In line with the competent authority's oversight policy, the following planning data should be determined:
- (1) the standard number of audits to be performed per oversight planning cycle;
  - (2) the standard duration of each audit;
  - (3) the standard working time for audit preparation, on-site audit, reporting, and follow-up per inspector;
  - (4) the standard number of unannounced inspections to be performed;
  - (5) the standard duration of inspections, including preparation, reporting, and follow-up per inspector; and
  - (6) the minimum number and the required qualifications of the inspectors for each audit/inspection.
- (e) The standard working time could be expressed either in working hours per inspector, or in working days per inspector. All planning calculations should then be based on the same unit (hours or working days).
- (f) It is recommended to use a spreadsheet application to process the data defined under (c) and (d), to assist in determining the total number of working hours/days per oversight planning cycle required for certification, oversight, and enforcement activities. This application could also serve as a basis for implementing a system for planning the availability of personnel.
- (g) The number of working hours/days per planning period for each qualified inspector that may be allocated for certification, oversight and enforcement activities should be determined, taking into account:
- (1) purely administrative tasks that are not directly related to certification and oversight;
  - (2) training;
  - (3) participation in other projects;
  - (4) planned absence; and
  - (5) the need to include a reserve for unplanned tasks or unforeseeable events.
- (h) The determination of the working time available for certification, oversight and enforcement activities should also consider, as applicable:
- (1) the use of qualified entities;
  - (2) cooperation with other competent authorities for approvals that involve more than one Member State;
  - (3) oversight activities under a bilateral aviation safety agreement.



- (i) Based on the elements listed above, the competent authority should be able to:
- (1) monitor the dates when audits and inspections are due, and when they were carried out;
  - (2) implement a system to plan the availability of personnel; and
  - (3) identify possible gaps between the number and the qualifications of personnel and the required volume of certification and oversight.

Care should be taken to keep planning data up to date in line with changes in the underlying planning assumptions, with particular focus on risk-based oversight principles.

## AMC1 147.B.200(a)(3) Management system

### QUALIFICATION AND TRAINING — GENERAL

- (a) It is essential for the competent authority to have the full capability to adequately assess the compliance and performance 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 qualifications that are required;
  - (3) establish initial and recurrent training programmes in order to maintain and to enhance the competency of inspectors at the level that is 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.
- (c) The competent authority should ensure that training is provided by qualified trainers with appropriate training skills.

## AMC2 147.B.200(a)(3) Management system

### QUALIFICATION AND TRAINING — INSPECTORS

- (a) Competent authority inspectors should have:
- (1) practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - (2) comprehensive knowledge of:
    - (i) the relevant parts of the implementing rules, certification specifications and guidance material;
    - (ii) the competent authority's procedures;
    - (iii) the rights and obligations of an inspector;
    - (iv) EU management system requirements and compliance monitoring;



- (v) training methods and techniques, continuing airworthiness management, and maintenance;
  - (vi) operational procedures that affect the continuing airworthiness management of the aircraft or its maintenance;
  - (vii) maintenance-related human factors and human performance principles;
  - (3) training on auditing techniques and assessing and evaluating management systems and safety risk management processes;
  - (4) 5 years of relevant work experience for them to be allowed to work independently as inspectors. This may include experience gained during training to obtain the qualifications mentioned below in point (a)(5);
  - (5) a relevant engineering degree or an aircraft maintenance technician qualification with additional education. 'Relevant engineering degree' refers to an engineering degree from aeronautical, mechanical, electrical, electronic, avionics or other studies that are relevant to the maintenance and continuing airworthiness of aircraft/aircraft components;
  - (6) knowledge of a relevant sample of the type(s) of aircraft or components, gained through a formalised training course. Aircraft/engine type training should be at least at a level equivalent to a Part-66 Appendix III Level 1 General Familiarisation.  
  
'Relevant sample' refers to courses that cover the typical aircraft or components that are within the scope of work;
  - (7) knowledge of maintenance standards, including fuel tank safety (FTS) training as described in Appendix IV to AMC5 145.A.30(e) and AMC2 147.B.200(a)(3).
- (b) In addition to technical competency, inspectors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.
- (c) A programme for recurrent training should be developed that ensures that the inspectors remain competent to perform their allocated tasks. As a general policy, it is not desirable for the inspectors to obtain technical qualifications from those entities that are under their direct regulatory oversight.

## AMC3 147.B.200(a)(3) Management system

### INITIAL AND RECURRENT TRAINING — INSPECTORS

#### (a) Initial training programme

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

- (1) aviation legislation, organisation, and structure;
- (2) the Chicago Convention, the relevant ICAO Annexes and Documents;
- (3) Regulation (EU) No 376/2014 on the reporting, analysis and follow-up of occurrences in civil aviation;



- (4) overview of Regulation (EU) 2018/1139 and its delegated and implementing acts and the related AMC, CSs, and GM;
- (5) Regulation (EU) No 1321/2014 as well as any other applicable requirements;
- (6) management systems, including the assessment of the effectiveness of a management system, in particular hazard identification and risk assessment, and non-punitive reporting techniques in the context of the implementation of a 'just culture';
- (7) auditing techniques;
- (8) procedures of the competent authority that are relevant to the inspectors' tasks;
- (9) human factors principles;
- (10) the rights and obligations of inspecting personnel of the competent authority;
- (11) on-the-job training that is relevant to the inspector's tasks;
- (12) technical training that is appropriate to the role and tasks of the inspector, in particular for those areas that require approvals.

NOTE: 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 competency has been achieved before an inspector is authorised to perform a task without supervision.

(b) Recurrent training programme

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, the operational environment and technologies;
- (2) procedures of the competent authority that are relevant to the inspector's tasks;
- (3) technical training that is appropriate to the role and tasks of the inspector; and
- (4) results from past oversight.

(c) Assessments of an inspector's competency should take place at regular intervals that do not exceed 3 years. The results of these assessments, as well as any actions taken following the assessments, should be recorded.

## AMC1 147.B.200(a)(5) Management system

### SAFETY RISK MANAGEMENT PROCESS

- (a) The safety risk management process required by point (a)(5) of point 147.B.200 should be documented. The following should be defined in the related documentation:
- (1) means for hazard identification, and the related data sources, taking into account data that comes from other competent authorities with which the competent authority interfaces in the State, or from the competent authorities of other Member States;



- (2) risk management steps including:
    - (i) analysis (in terms of the probability and the severity of the consequences of hazards and occurrences);
    - (ii) assessment (in terms of tolerability); and
    - (iii) control (in terms of mitigation) of risks to an acceptable level;
  - (3) who holds the responsibilities for hazard identification and risk management;
  - (4) who holds the responsibility for the follow-up of risk mitigation actions;
  - (5) the levels of management who have the authority to make decisions regarding the tolerability of risks;
  - (6) means to assess the effectiveness of risk mitigation actions; and
  - (7) the link with the compliance monitoring function.
- (b) To demonstrate that the safety risk management process is operational, competent authorities should be able to provide evidence that:
- (1) the persons involved in internal safety risk management activities are properly trained;
  - (2) hazards that could impact the authority's capabilities to perform its tasks and discharge its responsibilities have been identified and the related risk assessment is documented;
  - (3) regular meetings take place at appropriate levels of management of the competent authority to discuss the risks identified, and to decide on the tolerability of risks and possible risk mitigations;
  - (4) in addition to the initial hazard identification exercise, the risk management process is triggered as a minimum whenever changes occur that may affect the competent authority's capability to perform any of the tasks required by Part-147;
  - (5) a record of the actions taken to mitigate risks is maintained, showing the status of each action and the owner of the action;
  - (6) there is a follow-up on the implementation of all risk mitigation actions;
  - (7) risk mitigation actions are assessed for their effectiveness;
  - (8) the results of risk assessments are periodically reviewed to check whether they remain relevant. (Are the assumptions still valid? Is there any new information?).

## GM1 147.B.200(a)(5) Management system

### SAFETY RISK MANAGEMENT PROCESS

The purpose of safety risk management as part of the management system framework for competent authorities is to ensure the effectiveness of the management system. As for any organisation, hazard identification and risk management are expected to contribute to effective decision-making, to guide the allocation of resources and contribute to organisational success.





The safety risk management process required by point 147.B.200 is intended to address the safety risks that are directly related to the competent authority's organisation and processes, and which may affect its capability to perform its tasks and discharge its responsibilities. This process is not intended to be a substitute for the State safety risk management SARPs defined in ICAO Annex 19, Chapter 3, component 3.3. This does not mean, however, that the competent authority may not use information and data that is obtained through its State Safety Programme (SSP), including oversight data and information, for the purposes of safety risk management as part of its management system.

The safety risk management process is also to be applied to the management of changes (147.B.210), which is intended to ensure that the management system remains effective whenever changes occur.

## AMC1 147.B.200(d) Management system

### PROCEDURES AVAILABLE TO EASA

- (a) Copies of the procedures related to the competent authority's management system, and their amendments, that should be made available to EASA for the purpose of standardisation, should provide at least the following information:
- (1) the competent authority's organisational structure for the continuing oversight functions that it undertakes, with a description of the main processes. This information should demonstrate the allocation of responsibilities within the competent authority, and that the competent authority is capable of carrying out the full range of tasks for the size and complexity of the Member State's aviation industry. It should also consider the overall proficiency and the scope of authorisation of the competent authority's personnel;
  - (2) for personnel who are involved in oversight activities, the minimum required professional qualifications and amount of experience, and the principles that are used to guide their appointment (e.g. assessment);
  - (3) how the following are carried out: assessments of applications and evaluations of compliance, the issuing of certificates, continuing oversight activities, the follow-up of findings, enforcement measures and the resolution of safety concerns;
  - (4) the principles used for the management of exemptions and derogations;
  - (5) the processes that are in place to distribute the applicable safety information to enable a timely reaction to a safety problem;
  - (6) the criteria for planning continuing oversight activities (i.e. an oversight programme), including the management of interfaces when conducting continuing oversight activities (of air operations and of continuing airworthiness management, for example);
  - (7) an outline of the initial training of newly recruited oversight personnel (taking future activities into account), and the basic framework for the recurrent training of oversight personnel.
- (b) As part of the continuous monitoring of a competent authority, EASA may request details of the working methods used, in addition to a copy of the procedures of the competent authority's management system (and any amendments). These additional details are the procedures and



the related guidance material that describes the working methods for the personnel of the competent authority who conduct oversight activities.

- (c) Information related to the competent authority's management system may be submitted in an electronic format.

## 147.B.205 Allocation of tasks to qualified entities

- (a) The competent authority may allocate tasks related to the initial certification or to the continuing oversight of organisations subject to Regulation (EU) 2018/1139 and its delegated and implementing acts, to qualified entities. When allocating tasks, the competent authority shall ensure that it has:

- (1) put a system in place to initially and continuously assess whether the qualified entity complies with Annex VI to Regulation (EU) 2018/1139. That system and the results of the assessments shall be documented;
- (2) established a written agreement with the qualified entity, approved by both parties at the appropriate management level, which stipulates:
  - (i) the tasks to be performed;
  - (ii) the declarations, reports and records to be provided;
  - (iii) the technical conditions to be met when performing such tasks;
  - (iv) the related liability coverage;
  - (v) the protection given to the information acquired when carrying out such tasks.

- (b) The competent authority shall ensure that the internal audit process and safety risk management process established pursuant to point 147.B.200(a)(5) cover all the certification and continuing oversight tasks performed by the qualified entity on its behalf.

## GM1 147.B.205 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 that are related to the initial certification and to the continuing oversight of organisations as defined in Regulation (EU) No 1321/2014.

## 147.B.210 Changes in the management system

- (a) The competent authority shall have a system in place to identify the changes that affect its capability to perform its tasks and discharge its responsibilities as defined in Regulation (EU) 2018/1139 and its delegated and implementing acts. That system shall enable the competent authority to take action necessary to ensure that its management system remains adequate and effective.



- (b) The competent authority shall update in a timely manner its management system to reflect any changes to Regulation (EU) 2018/1139 and its delegated and implementing acts so as to ensure its effective implementation.
- (c) The competent authority shall notify the Agency of any changes affecting its capability to perform its tasks and discharge its responsibilities as provided for in Regulation (EU) 2018/1139 and its delegated and implementing acts.

## 147.B.220 Record-keeping

- (a) The competent authority shall establish a record-keeping system that allows the adequate storage, accessibility and reliable traceability of:
  - (1) the management system's documented policies and procedures;
  - (2) the training, qualifications and authorisations of its personnel;
  - (3) the allocation of tasks, covering the elements required by point 147.B.205, as well as the details of tasks allocated;
  - (4) certification processes and continuing oversight of certified organisations, including:
    - (i) the application for an organisation certificate;
    - (ii) the competent authority's continuing oversight programme, including all the assessments, audits and inspection records;
    - (iii) the organisation certificate, including any changes to it;
    - (iv) a copy of the oversight programme, listing the dates when audits are due and when audits were carried out;
    - (v) copies of all formal correspondence;
    - (vi) recommendations for the issue or continuation of a certificate, details of findings and actions taken by the organisations to close those findings, including the date of closure, enforcement actions and observations;
    - (vii) any assessment, audit and inspection report issued by another competent authority pursuant to point 147.B.300(d);
    - (viii) copies of all the organisation maintenance training organisation expositions or manuals, and of any amendments to them;
    - (ix) copies of any other documents approved by the competent authority;
  - (5) documents supporting the use of alternative means of compliance;
  - (6) safety information provided in accordance with point 147.B.125 and follow-up measures;
  - (7) the use of safeguard and flexibility provisions in accordance with Article 70, Article 71 and Article 76(4) of Regulation (EU) 2018/1139.
- (b) The competent authority shall maintain a list of all the organisation certificates it has issued.



- (c) All the records referred to in points (a) and (b) shall be kept for a minimum period of 5 years, subject to applicable data protection law.
- (d) All the records referred to in points (a) and (b) shall be made available, upon request, to a competent authority of another Member State or to the Agency.

## AMC1 147.B.220(a) Record-keeping

### GENERAL

- (a) The record-keeping system should ensure that all records are accessible within a reasonable time whenever they are needed. These records should be organised in a manner that ensures their traceability and retrievability throughout the required retention period.
- (b) All records that contain sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure their confidentiality.
- (c) Records should be kept in paper form, or in an electronic format, or a combination of the two. Records that are stored on microfilm or optical discs are also acceptable. The records should remain legible and accessible throughout the required retention period. The retention period starts when the record is created.
- (d) Paper systems should use robust material which can withstand normal handling and filing. Computer record systems should have at least one backup system, which should be updated within 24 hours of any new entry. Computer record systems should include safeguards to prevent any unauthorised personnel from altering the data.
- (e) All computer hardware that is used to ensure the backup of data should be stored in a different location from the one that contains the working data, and in an environment that ensures that the data remains in a good condition. When hardware or software changes take place, special care should be taken to ensure that all the necessary data continues to be accessible throughout at least the full period specified in point 147.B.220(c).

## AMC1 147.B.220(a)(1) Record-keeping

### COMPETENT AUTHORITY MANAGEMENT SYSTEM

Records that are related to the competent authority's management system should include, as a minimum, and as applicable:

- (a) the documented policies and procedures;
- (b) the personnel files of the competent authority's personnel, with the supporting documents related to their training and qualifications;
- (c) the results of the competent authority's internal audits and safety risk management processes, including audit findings, and corrective, preventive and risk mitigation actions; and
- (d) the contract(s) established with any qualified entities that perform certification or oversight tasks on behalf of the competent authority.



## 147.B.300 Oversight principles

- (a) The competent authority shall verify:
- (1) compliance with the requirements that are applicable to organisations, prior to issuing an organisation certificate;
  - (2) continued compliance with the applicable requirements of the organisations it has certified;
  - (3) the implementation of appropriate safety measures mandated by the competent authority in accordance with points 147.B.135(c) and (d).
- (b) This verification shall:
- (1) be supported by documentation specifically intended to provide personnel responsible for oversight with guidance to perform their functions;
  - (2) provide the organisations concerned with the results of oversight activities;
  - (3) be based on assessments, audits and inspections and, if needed, unannounced inspections;
  - (4) provide the competent authority with the evidence needed in case further action is required, including the measures provided for in point 147.B.350.
- (c) The competent authority shall establish the scope of the oversight set out in points (a) and (b) taking into account the results of past oversight activities and the safety priorities.
- (d) If the facilities of an organisation are located in more than one State, the competent authority, as defined in point 147.1, shall consider to agree to have the oversight tasks performed by the competent authority(ies) of the Member State(s) where the facilities are located, or by the Agency for facilities that are located outside a territory for which Member States are responsible under the Chicago Convention. Any organisation that is subject to such an agreement shall be informed of its existence and of its scope.
- (e) For any oversight activities that are performed at facilities located in a Member State other than where the organisation has its principal place of business, the competent authority, as defined in point 147.1, shall inform the competent authority of that Member State before performing any on-site audit or inspection of the facilities.
- (f) The competent authority shall collect and process any information deemed necessary for performing oversight activities.
- (g) The competent authority shall consider cooperating with and involving as much as possible the competent authority(ies) of other Member State(s) in their oversight activities of facilities located in another state, especially in regard to product audits, unplanned audits, and the examinations referred to in points 147.A.135(f).

## AMC1 147.B.300(a);(b);(c) Oversight principles

### MANAGEMENT SYSTEM ASSESSMENT



As part of the initial certification of an organisation, the competent authority should assess the organisation's management system and processes to make sure that all the required enablers of a functioning management system are present and suitable.

As part of its continuing oversight activities, the competent authority should verify that the required enablers remain present and operational, and assess the effectiveness of the organisation's management system and processes.

When significant changes take place in the organisation, the competent authority should determine whether there is a need to review the existing assessment to ensure that it is still valid.

## AMC1 147.B.300(f) Oversight principles

### INFORMATION DEEMED NECESSARY FOR OVERSIGHT

This information should include, as a minimum:

- (a) the reports received by the competent authority in regard to fraudulent actions taking place in maintenance training organisations;
- (b) the reports received by the competent authority in regard to training activities taking place in locations other than the ones identified in the certificate and the MTOE;
- (c) the reports received in regard to training activities taking place in a Member State other than the Member State of the competent authority;
- (d) the results of the following types of inspections and surveys if they indicate an issue that originates from a Part-147 organisation:
  - (1) incorrectly issued or forged Certificates of Recognition;
  - (2) Aircraft Maintenance Licences issued incorrectly as a result of improper documentation issued by maintenance training organisations;
  - (3) maintenance carried out incorrectly that can be traced to incorrect, or lack of, training related to the maintenance training organisation.



## 147.B.305 Oversight programme

- (a) The competent authority shall establish and maintain an oversight programme covering the oversight activities required by point 147.B.300.
- (b) The oversight programme shall take into account the specific nature of the organisation, the complexity of its activities, the results of past certification or oversight activities, or both, and it shall be based on the assessment of the associated risks. It shall include, within each oversight planning cycle:
- (1) assessments, audits and inspections, including, as appropriate:
    - (i) management system assessments and process audits;
    - (ii) product audits of a relevant sample of the training activities carried out by the organisation;
    - (iii) unannounced inspections;
  - (2) meetings convened between the accountable manager and the competent authority to ensure that both parties remain informed of all significant issues.
- (c) The oversight planning cycle shall not exceed 24 months.
- (d) Notwithstanding point (c), the oversight planning cycle may be extended to 36 months if the competent authority has established that during the previous 24 months:
- (1) the organisation has demonstrated that it can effectively combat fraudulent activities and ensure the security of the examination process;
  - (2) the organisation has continuously demonstrated compliance with point 147.A.150 and it has full control over all changes;
  - (3) no level 1 findings have been issued;
  - (4) all corrective actions have been implemented within the time period that was accepted or extended by the competent authority as provided for in point 147.B.350.
- (e) The oversight planning cycle may be shortened if there is evidence that the safety performance of the organisation has decreased.
- (f) The oversight programme shall include records of the dates when assessments, audits, inspections and meetings are due, and when assessments, audits, inspections and meetings have been effectively carried out.
- (g) At the completion of each oversight planning cycle, the competent authority shall issue a recommendation report on the continuation of the approval, reflecting the results of the oversight.



## AMC1 147.B.305(a);(b) Oversight programme

### ANNUAL REVIEW

- (a) The oversight planning cycle and the related oversight programme for each organisation should be reviewed annually to ensure that they remain adequate regarding any changes in the nature of the organisation, the complexity of its activities or the safety performance of the organisation.
- (b) When reviewing the oversight planning cycle and the related oversight programme, the competent authority should also consider any relevant information collected in accordance with points 147.A.135 and 147.B.300(f).

## AMC1 147.B.305(b) Oversight programme

### SPECIFIC NATURE OF THE ORGANISATION AND COMPLEXITY OF ITS ACTIVITIES — RESULTS OF PAST CERTIFICATION OR OVERSIGHT ACTIVITIES

When determining the oversight programme, including the product audits, the competent authority should consider in particular the following elements, as applicable:

- (a) the effectiveness of the organisation's management system in identifying and addressing non-compliances and combating fraud;
- (b) the implementation by the organisation of any industry standards that are directly relevant to the organisation's activities subject to this Regulation;
- (c) the procedure applied for and the scope of changes not requiring prior approval;
- (d) any specific procedures implemented by the organisation that are related to any alternative means of compliance used;
- (e) the number of approved locations and the activities performed at each location;
- (f) the number and type of any subcontractors that perform training activities; and
- (g) the volume of activity for each class rating, as applicable.

## AMC2 147.B.305(b) Oversight programme

### SUBCONTRACTED ACTIVITIES

If a Part-147 organisation subcontracts training activities, the competent authority should determine whether the subcontracted organisation needs to be audited and included in the oversight programme, taking into account the specific nature and complexity of the subcontracted activities, the results of previous oversight activities of the approved organisation, and the assessment of the associated risks.

For such audits, competent authority inspectors should ensure that they are accompanied throughout the audit by a senior technical member of the Part-147 organisation.





NOTE: If a Part-147 organisation subcontracts training activities, the competent authority should ensure that the Part-147 organisation has sufficient control over the subcontracted activities (see AMC1 147.A.145(c)).

## AMC1 147.B.305(b)(1) Oversight programme

### AUDIT

- (a) The oversight programme should indicate which aspects of the approval will be covered by each audit.
- (b) Part of each audit should concentrate on the audit reports produced by the organisation's compliance monitoring function, to determine whether the organisation has been identifying and correcting its problems.
- (c) At the conclusion of the audit, the auditing inspector should complete an audit report that identifies the areas and processes that were audited, and includes all the findings that were raised.
- (d) At the completion of each oversight planning cycle, a new EASA Form 22 should be issued.

## AMC1 147.B.305(c) Oversight programme

### OVERSIGHT PLANNING CYCLE — AUDIT AND INSPECTION

- (a) When determining the oversight planning cycle and defining the oversight programme, the competent authority should assess the risks related to the activity and set-up of each organisation and adapt the oversight to the level of risk identified and to the effectiveness of the organisation's management system, in particular its ability to effectively combat fraudulent activities.
- (b) The competent authority should establish a schedule of audits and inspections that is appropriate to each organisation. Inspectors should work in accordance with the schedule provided to them.
- (c) When the competent authority, having regard to the effectiveness of the organisation's management system, varies the frequency of an audit or inspection, it should ensure that all aspects of the organisation's activity are audited and inspected within the applicable oversight planning cycle.

## AMC2 147.B.305(c) Oversight programme

### OVERSIGHT PLANNING CYCLE — AUDIT

- (a) For each organisation certified by the competent authority, all applicable requirements including relevant processes should be audited at periods that do not exceed the applicable oversight planning cycle. The beginning of the first oversight planning cycle is normally determined by the date of issue of the first certificate. If the competent authority wishes to



align the oversight planning cycle with the calendar year, it should shorten the first oversight planning cycle accordingly.

- (b) Audits should include at least one on-site audit within each oversight planning cycle. For organisations that carry out their regular activities at more than one site, the determination of the sites and the requirements at these sites to be audited should consider the results of past oversight activities and the volume of activities at each site, as well as the main risk areas identified.
- (c) For organisations that hold more than one certificate under Regulation (EU) 2018/1139, the competent authority may define an integrated oversight schedule that includes all the applicable audit items. In order to avoid any duplication of audits, credit may be granted for specific audit items that have already been completed during the current oversight planning cycle, provided that:
- (1) the specific audit item is the same for all the certificates under consideration;
  - (2) there is satisfactory evidence on record that those specific audit items were carried out, and that all the related corrective actions have been implemented to the satisfaction of the competent authority;
  - (3) the competent authority is satisfied that there is no evidence that standards have deteriorated regarding those specific audit items for which credit is granted.

### GM1 147.B.305(c) Oversight programme

The expression 'shall not exceed 24 months' does not imply that 24 months is a minimum duration for the oversight cycle. Based on the elements specified in 147.B.300(c) and 147.B.305(b) (e.g. safety priorities, complexity of activities), the competent authority may decide to apply a cycle of less than 24 months (e.g. 12 months).

### AMC1 147.B.305(d) Oversight programme

#### EXTENSION OF THE OVERSIGHT PLANNING CYCLE BEYOND 24 MONTHS

- (a) If the competent authority applies an oversight planning cycle that exceeds 24 months, it should, at a minimum, perform one focused inspection of the organisation (inspection of a specific area, element, or aspect of the organisation) within each 12-month segment of the applicable oversight planning cycle to support the extended oversight programme.
- (b) If the results of this inspection indicate a decrease in the safety performance or regulatory compliance of the organisation, the competent authority should revert back to a 24-month (or less) oversight planning cycle and review the oversight programme accordingly.



## GM1 147.B.305(d)(2) Oversight programme

### ORGANISATION'S CONTROL OVER THE CHANGES

For the purpose of extending the oversight planning beyond 24 months, the continuous compliance of the organisation with 147.A.150 and the full control over all changes referred to in point 147.B.305(d)(2) includes in particular the ability of the organisation to manage adequately the changes not requiring prior approval foreseen in 147.A.150(c).

## 147.B.310 Initial certification procedure

- (a) Upon receiving an application from an organisation for the initial issue of a certificate, the competent authority shall verify the organisation's compliance with the applicable requirements.
- (b) A meeting with the accountable manager of the organisation shall be convened at least once during the investigation for initial certification to ensure that that person understands his or her role and accountability.
- (c) The competent authority shall record all the findings issued, closure actions as well as the recommendations for the issue of the certificate.
- (d) The competent authority shall confirm to the organisation in writing all the findings raised during the verification. For initial certification, all findings must be corrected to the satisfaction of the competent authority before the certificate can be issued.
- (e) When satisfied that the organisation complies with the applicable requirements, the competent authority shall:
  - (1) issue the certificate as established in Appendix II 'EASA Form 11' in accordance with the class and rating system provided for in Appendix IV;
  - (2) formally approve the maintenance training organisation exposition.
- (f) The certificate reference number shall be included on the EASA Form 11 certificate in a manner specified by the Agency.
- (g) The certificate shall be issued for an unlimited duration. The privileges and the scope of the activities that the organisation is approved to conduct, including any limitations as applicable, shall be specified in the terms of approval attached to the certificate.
- (h) To enable the organisation to implement changes without prior competent authority approval in accordance with point 147.A.150(c), the competent authority shall approve the relevant maintenance training organisation exposition procedure that sets out the scope of such changes and describes how such changes will be managed and notified to the competent authority.



## AMC1 147.B.310 Initial certification procedure

### VERIFICATION OF COMPLIANCE

- (a) In order to verify the organisation's compliance with the applicable requirements, the competent authority should conduct an audit of the organisation, including interviews of the personnel, and inspections carried out at the organisation's facilities.
- (b) The competent authority should only conduct such an audit if it is satisfied that the application and the supporting documentation, including the results of the pre-audit performed by the organisation, are in compliance with the applicable requirements.
- (c) The audit should focus on the following areas:
- (1) the detailed management structure, including the names and qualifications of personnel as required by points (a), (b), and (c) of point 147.A.105, and the adequacy of the organisation and its management structure;
  - (2) the personnel:
    - (i) the adequacy of the number of staff, and of their qualifications and experience with regard to the intended terms of approval and the associated privileges;
    - (ii) the validity of any licences and/or authorisations, as applicable;
  - (3) the processes used for ensuring compliance;
  - (4) the facilities and their adequacy regarding the organisation's scope of work;
  - (5) the documentation based on which the certificate should be granted (i.e. the documentation required by Part-147):
    - (i) verification that the procedures specified in the MTOE comply with the applicable requirements; and
    - (ii) verification that the accountable manager has signed the exposition statement.
- (d) If an application for an organisation certificate is refused, the applicant should be informed of the right of appeal that exists under national law.

## AMC1 147.B.310(a) Initial certification procedure

### AUDIT

- (a) The competent authority should determine how and by whom the audit shall be conducted. For example, it will be necessary to determine whether one large team audit, a short series of small team audits, or a long series of single inspector audits is most appropriate for the particular situation.
- (b) The audit may be structured so as to verify the organisation's processes related to a product line. For example, in the case of an organisation with Airbus A310 and A320 type training ratings, the audit should concentrate on the training processes of one aircraft type only for a full compliance check, and depending upon the result, the second aircraft type may only require a



sample check against those aspects that were seen to be weak regarding compliance for the first type.

- (c) In determining the scope of the audit and which activities of the organisation will be assessed during the audit, the privileges of the approved organisation should be taken into account, e.g. their approval to carry out aircraft type evaluation.
- (d) Competent authority auditing inspectors should always ensure that they are accompanied throughout the audit by a senior member of the organisation, who is normally the compliance manager. The reason for being accompanied is to ensure that the organisation is fully aware of any findings raised during the audit.
- (e) At the end of the audit, the auditing inspector should inform the senior member of the organisation of all the findings that were raised during the audit.

### AMC1 147.B.310(c) Initial certification procedure

There may be occasions when the competent authority inspector is unsure about the compliance of some aspects of the organisation applying for the initial issue of a certificate. If this occurs, the inspector should inform the organisation about the possible non-compliance at the time, and about the fact that the situation will be reviewed within the competent authority before a decision is made. If the review concludes that there is no finding, then a verbal confirmation to the organisation should suffice.

### AMC2 147.B.310(c) Initial certification procedure

- (a) The audit should be recorded using the audit report EASA Form 22 (Appendix II to AMC2 147.B.310(c)).
- (b) A review of the EASA Form 22 audit report form should be carried out by a competent independent person nominated by the competent authority. A satisfactory review of the audit report should be indicated by a signature on the EASA Form 22.
- (c) The audit reports should include the date when each finding was closed, together with a reference to the closure actions.

### AMC1 147.B.310(d) Initial certification procedure

All findings should be confirmed in writing to the applicant organisation within 2 weeks of the on-site audit.

## 147.B.330 Changes — organisations

- (a) Upon receiving an application for a change that requires prior approval, the competent authority shall verify the organisation's compliance with the applicable requirements before issuing the approval.



- (b) The competent authority shall establish the conditions under which the organisation may operate during the change unless the competent authority determines that the organisation's certificate needs to be suspended.
- (c) When it is satisfied that the organisation complies with the applicable requirements, the competent authority shall approve the change.
- (d) Without prejudice to any additional enforcement measures, if the organisation implements changes requiring prior approval without having received the approval of the competent authority pursuant to point (c), the competent authority shall consider the need to suspend, limit or revoke the organisation's certificate.
- (e) For changes not requiring prior approval, the competent authority shall include the review of such changes in its continuing oversight in accordance with the principles set forth in point 147.B.300. If any non-compliance is found, the competent authority shall notify the organisation, request further changes, and act in accordance with point 147.B.350.

### AMC1 147.B.330 Changes — organisations

- (a) The competent authority should have adequate control over any changes to the personnel specified in points (a), (b), and (c) of point 147.A.105. Such changes in personnel will require an amendment to the exposition.
- (b) When an organisation submits the name of a new nominee for any of the personnel specified in points (a), (b), and (c) of point 147.A.105, the competent authority may 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 to call for additional evidence of their suitability before deciding upon them being acceptable.
- (c) For changes requiring prior approval, in order to verify the organisation's compliance with the applicable requirements, the competent authority should conduct an audit of the organisation, limited to the extent of the changes.
- (d) If required, the audit may include interviews and inspections carried out at the organisation's facilities.
- (e) The applicable part(s) of EASA Form 22 should be used to document the assessment of any changes to the Part-147 approval.

### GM1 147.B.330 Changes — organisations

#### CHANGE OF THE NAME OF THE ORGANISATION

- (a) On receipt of the application and the amendment to the relevant parts of the MTOE, the competent authority should reissue the certificate.
- (b) A change of only the name does not require the competent authority to audit the organisation unless there is evidence that other aspects of the organisation have changed.



## AMC1 147.B.330(e) Changes — organisations

### REVIEW OF CHANGES NOT REQUIRING PRIOR APPROVAL

The authority should implement a process to review the changes not requiring prior approval. This should include at least, as part of the continuing oversight activities during the oversight cycle:

- auditing the organisation process for changes not requiring prior approval;
- selecting a sample of these changes and verifying their compliance with the applicable requirements.

## 147.B.350 Findings and corrective actions; observations

(a) The competent authority shall have a system in place to analyse findings for their safety significance.

(b) A level 1 finding shall be issued by the competent authority when any significant non-compliance is detected with the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts, with the organisation's procedures and manuals, or with the organisation's certificate including the terms of approval, which lowers safety or seriously endangers flight safety.

Level 1 findings shall also include:

- (1) any failure to grant the competent authority access to the organisation's facilities referred to in point 147.A.170 during normal operating hours and after two written requests;
- (2) obtaining the organisation certificate or maintaining its validity by falsification of the submitted documentary evidence;
- (3) any evidence of malpractice or fraudulent use of the organisation certificate;
- (4) the lack of an accountable manager.

(c) A level 2 finding shall be issued by the competent authority when any non-compliance is detected with the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts, with the organisation's procedures and manuals, or with the organisation's certificate including the terms of approval, which is not classified as a level 1 finding.

(d) When a finding is detected during oversight or by any other means, the competent authority shall, without prejudice to any additional action required by Regulation (EU) 2018/1139 and its delegated and implementing acts, communicate in writing the finding to the organisation and request corrective action to address the non-compliance identified. If a level 1 finding directly relates to an aircraft, the competent authority shall inform the competent authority of the Member State in which the aircraft is registered.

- (1) If there are any level 1 findings, the competent authority shall take immediate and appropriate action to prohibit or limit the activities of the organisation involved and, if appropriate, it shall take action to revoke the certificate or to limit or suspend it in whole



or in part, depending on the extent of the level 1 finding, until successful corrective action has been taken by the organisation.

(2) If there are any level 2 findings, the competent authority shall:

(i) grant the organisation a corrective action implementation period that is appropriate to the nature of the finding, and that in any case shall initially not be more than 3 months. The period shall commence from the date of the written communication of the finding to the organisation requesting corrective action to address the non-compliance identified. At the end of that period, and subject to the nature of the finding, the competent authority may extend the initial period provided that a corrective action plan has been agreed with the competent authority;

(ii) assess the corrective action plan and implementation plan proposed by the organisation, and if the assessment concludes that they are sufficient to address the non-compliance, accept them.

(3) If the organisation fails to submit an acceptable corrective action plan or fails to perform the corrective action within the time period accepted or extended by the competent authority, the finding shall be raised to level 1 and action shall be taken as laid down in point (d)(1).

(4) The competent authority shall record all the findings that it has raised or that have been communicated to it in accordance with point (e) and, where applicable, the enforcement measures it has applied, as well as all corrective actions and the dates of the action closures for all the findings.

(e) Without prejudice to any additional enforcement measures, when an authority performing the oversight tasks pursuant to point 147.B.300(d) identifies any non-compliance with the applicable requirements of Regulation (EU) 2018/1139 and its delegated and implementing acts by an organisation certified by the competent authority of another Member State or the Agency, it shall inform that competent authority and provide an indication of the level of the finding.

(f) The competent authority may issue observations for any of the following cases not requiring level 1 or level 2 findings:

(1) for any item whose performance has been assessed to be ineffective;

(2) when it has been identified that an item has the potential to cause a non-compliance under points (b) or (c);

(3) when suggestions or improvements are of interest for the overall safety performance of the organisation.

The observations issued under this point shall be communicated in writing to the organisation and recorded by the competent authority.





## GM1 147.B.350(f) Findings and corrective actions; observations

### DIFFERENCE BETWEEN 'LEVEL 2 FINDING' AND 'OBSERVATION'

(a) 'Findings' are issued for non-compliance with the Regulation, whereas 'observations' may be issued to an organisation remaining compliant with the Regulation while additional inputs for the organisation could be considered for continuous improvement.

However, the competent authority may decide to issue a 'level 2' finding when the 'observations' process is not managed correctly or overlooked.

(b) Examples to help differentiate between a 'level 2 finding' and an 'observation' are provided below, based on the provisions for the control and calibration of tools in accordance with point 147.A.115.

#### Example of a 'level 2 finding'

— The organisation could not demonstrate compliance with some elements of 147.A.115(b) regarding the availability of the tools and equipment as evidenced by:

- (1) the fact that some sampled workshops were not equipped with the corresponding tools and equipment for the topics covered in such workshops;
- (2) the fact that one tool has not been correctly identified (e.g. incorrect P/N, S/N) in the tools control register.

#### Examples of 'observations'

— Accumulation of tools in the store not sent yet for calibration. This situation could generate some consequences on the availability of tools during practical training activities (ineffectiveness of the process).

— The process to manage the tools control register through the dedicated software is not detailed enough (potential to cause a level 2 finding).

— The colour of the 'unserviceable' tag of the tools could generate some confusion. The organisation should consider changing the colour of this unserviceable tag to better alert the staff on the particular status of the unserviceable tools (potential improvement).

## 147.B.355 Suspension, limitation, and revocation

The competent authority shall:

(a) suspend a certificate when it considers that there are reasonable grounds that such action is necessary to prevent a credible threat to aircraft safety;

(b) suspend, revoke, or limit a certificate if such action is required pursuant to point 147.B.350;

(c) suspend or limit in whole or in part a certificate if unforeseeable circumstances outside the control of the competent authority prevent its inspectors from discharging their oversight responsibilities over the oversight planning cycle.



## APPENDICES TO ANNEX IV (PART-147)

## Appendix I to Annex IV — 147.A.200 Basic training course duration

(a) The minimum duration of a complete basic training course shall be as follows:

Basic Course Rating/limitation AML (sub)category	Basic training duration (in hours)	Basic knowledge theoretical training element Theoretical Training-Ratio (ratio in %)
BT.A1	800	30–35
BT.A2	650	30–35
BT.A3	800	30–35
BT.A4	800	30–35
BT.B1.1	2 400	50–60
BT.B1.2	2 000	50–60
BT.B1.3	2 400	50–60
BT.B1.4	2 400	50–60
BT.B2	2 400	50–60
BT.B2L	1 500 (*)	50–60
BT.B3	1 000	50–60

(\*) This number of hours shall be increased as follows, depending on the additional system ratings selected:

Limitation (B2L AML System Rating)	Additional training duration (in hours)	Basic knowledge theoretical training element Theoretical Training-Ratio (ratio in %)
COM/NAV	90	50–60
INSTRUMENTS	55	
AUTOFLIGHT	80	
SURVEILLANCE	40	
AIRFRAME SYSTEMS	100	



**Appendix II to Annex IV — 147.B.310 Initial certification procedure**  
**~~Maintenance Training Organisation Approval — EASA Form 11~~**

**Maintenance Training Organisation Certificate — EASA FORM 11**

Page 1 of 2

[MEMBER STATE (\*)]  
 A Member of the European Union (\*\*)

**MAINTENANCE TRAINING ~~AND EXAMINATION~~ ORGANISATION ~~APPROVAL~~ CERTIFICATE**

Reference: [MEMBER STATE CODE (\*)].147.[XXXX]

Pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council and to Commission Regulation (EU) No 1321/2014, ~~for the time being in force~~ and subject to the conditions specified below, the [COMPETENT AUTHORITY OF THE MEMBER STATE (\*)] hereby certifies:

**[COMPANY NAME AND ADDRESS]**

as a maintenance training organisation in compliance with Section A of Annex IV (Part-147) ~~of~~ **to** Regulation (EU) No 1321/2014, approved to provide training ~~activities and conduct examinations~~ listed in the ~~attached terms of approval schedule attached~~ and ~~to issue related certificates of recognition to students~~ using the above references.

**CONDITIONS:**

1. This approval is limited to ~~what is that~~ specified in the scope of work section of the approved maintenance training organisation exposition as referred to in Section A of Annex IV (Part-147); ~~and~~
2. ~~This approval requires compliance with the procedures specified in the approved maintenance training organisation exposition;~~ and
3. ~~This approval is valid whilst the approved maintenance training organisation remains in compliance with Annex IV (Part-147) of Regulation (EU) No 1321/2014;~~ ~~and~~
4. ~~Subject to compliance with the foregoing conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended, or revoked.~~

Date of original issue: .....

Date of this revision: .....

Revision No: .....

Signed: .....

For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE (\*)]

EASA Form 11 Issue ~~6~~ **7**

(\*) Or EASA if EASA is the competent authority

(\*\*) Delete for non-EU Member States or EASA.



**MAINTENANCE TRAINING AND EXAMINATION ORGANISATION TERMS OF APPROVAL SCHEDULE**

Reference: [MEMBER STATE CODE (\*).147.[XXXX]

Organisation: [COMPANY NAME AND ADDRESS]

CLASS	LICENCE CATEGORY RATING	LIMITATION	AIRCRAFT TYPE RATING
BASIC TRAINING (**)	B1 (**)(***)	TB1.1 (**)(***)	AEROPLANES TURBINE (**)(***)
		TB1.2 (**)	AEROPLANES PISTON (**)
		TB1.3 (**)	HELICOPTERS TURBINE (**)
		TB1.4 (**)	HELICOPTERS PISTON (**)
	B2 (**)/(****)	TB2 (**)	AVIONICS (**)
	B2L (**)	TB2L (**)	AVIONICS (indicate system rating) (**)
	B3 (**)	TB3 (**)	PISTON ENGINE NON-PRESSURISED AERO-PLANES 2 000 KG MTOM AND BELOW (**)
	A (**)	TA.1 (**)	AEROPLANES TURBINE (**)
		TA.2 (**)	AEROPLANES PISTON (**)
		TA.3 (**)	HELICOPTERS TURBINE (**)
TA.4 (**)		HELICOPTERS PISTON (**)	
L (**) (Only examination)	TL (**)	QUOTE THE SPECIFIC LICENCE SUB-CATEGORY (**)	
AIRCRAFT TYPE TRAINING/TA SK (**)	C (**)(***)	T4 (**)(***)	{QUOTE AIRCRAFT TYPE} (***)
		T1 (**)	{QUOTE AIRCRAFT TYPE} (***)
		T2 (**)	{QUOTE AIRCRAFT TYPE} (***)
		T3 (**)	{QUOTE AIRCRAFT TYPE} (***)
AIRCRAFT TYPE EVALUATION (**)	(***)	(***)	(***)
AIRCRAFT TASK TRAINING (**)	(***)	(***)	(***)

This These terms of approval-schedule-is are limited to those trainings activities and-examinations specified in the scope of work section of the approved maintenance training organisation exposition.

Maintenance tTraining eOrganisation eExposition reference:

.....

Date of original issue: .....



Date of last revision approved: ..... Revision No: .....

Signed: .....

For the competent authority: [COMPETENT AUTHORITY OF THE MEMBER STATE (\*)]

EASA Form 11 Issue 67

(\*) or EASA if EASA is the competent authority.

(\*\*) Delete as appropriate if the organisation is not approved.

(\*\*\*) Complete with the appropriate rating and limitation.

(\*\*\*\*) ~~The approval for the Basic B2 course/examination includes approval for B2L course/examination for all system ratings.~~

## AMC1 to Appendix II to Annex IV — 147.B.310 Initial certification procedure to Part 147 — Maintenance Training Organisation Approval referred to in Annex IV (Part 147)

(a) The following fields on page 2 'Maintenance Training Organisation Terms of and Examination Approval ~~Schedule~~' of the maintenance training and examination organisation approval certificate should be completed as follows:

- (1) Date of original issue: ~~It~~ refers to the date of the original issue of the maintenance training organisation exposition.
- (2) Date of last revision approved: ~~It~~ refers to the date of the last revision of the maintenance training organisation exposition affecting the content of the certificate. Changes to the maintenance training organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.
- (3) Revision No: ~~It~~ refers to the revision number ~~No~~ of the last revision of the maintenance training organisation exposition affecting the content of the certificate. Changes to the maintenance training organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.



## Appendix III to Annex IV — 147.A.145 Privileges of the organisation

### ~~Certificates of Recognition referred to in Annex IV (Part 147) — EASA Forms 148 and 149~~

#### 1. Basic Training and Examination

- (a) The basic training certificate template shall be used for recognition of completion of either the basic training or of the basic knowledge theoretical examination element, ~~or both the basic training and basic training examinations.~~
- (b) The certificate may only be issued to one person and shall clearly identify such person by:
- (1) full name;
  - (2) date of birth;
  - (3) place of birth.
- (c) The certificate may be issued by only one approved maintenance training organisation and shall clearly identify the issuing organisation by:
- (1) registered name;
  - (2) address, to be understood as principal place of business;
  - (3) approval number.
- (d) The certificate may only be issued for one basic training or part of a basic training and shall clearly identify such training by:
- (1) the dates of commencement and finalisation of the basic training, and the duration in hours;
  - (2) the location where the basic training was conducted;
  - (3) the corresponding aircraft maintenance licence (sub)category, or (sub)categories in the case of a combined training for more than one category or subcategory from the terms of approval;
  - (4) the knowledge level referred to in Appendix I and Appendix VII to Annex III (Part-66).
- (e) The ~~training~~ certificate may be issued to several modules of the basic knowledge theoretical examination element and shall clearly identify each ~~individual~~ module examination by:
- (1) the date when the examination was passed;
  - (2) the location where the examination was conducted;
  - (3) the corresponding aircraft maintenance licence (sub)category or (sub)categories;
  - (4) the knowledge level referred to in ~~together with the corresponding version of~~ Appendix I and Appendix VIII to Annex III (Part-66).
- (f) A certificate of recognition for basic training or basic knowledge theoretical examination(s) may be issued only on EASA Forms 148a or 148b;



- (g) EASA Form 148a shall be used for basic training and basic knowledge theoretical examinations conducted by a training organisation approved in accordance with Annex IV (Part-147).
- (h) EASA Form 148b shall be used for basic knowledge theoretical examinations conducted by the competent authority in accordance with Section B, Subpart C of Annex III (Part-66) to Commission Regulation (EU) No 1321/2014.



**CERTIFICATE OF RECOGNITION**

Reference: [MEMBER STATE CODE (\*)].147.[XXXX].[YYYY~~Y~~]

The certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By:

[COMPANY NAME AND ADDRESS]

Reference: [MEMBER STATE CODE (\*)].147.[XXXX]

a maintenance training organisation approved to provide training ~~and conduct examinations~~ within its approval schedule and in accordance with Annex IV (Part-147) to Commission Regulation (EU) No 1321/2014.

This certificate attests that the above-named person has successfully attended and/or passed (\*\*) the ~~approved~~ basic training ~~course(s)~~ (\*\*) ~~and/or~~ the basic **knowledge theoretical** examination(s) (\*\*) stated below in compliance with Regulation (EU) 2018/1139 of the European Parliament and of the Council and with Commission Regulation (EU) No 1321/2014.

[BASIC TRAINING ~~COURSE(S)~~ (\*\*)]~~/~~

[START and END DATES, DURATION],[LOCATION]

[SPECIFY THE AML (SUB)CATEGORY, KNOWLEDGE LEVEL]

or

[BASIC **KNOWLEDGE THEORETICAL** EXAMINATION(S) (\*\*)]

[LIST OF PART-66 MODULES]~~/~~

[LOCATION AND DATE OF EXAMINATION PASSED]

[SPECIFY THE AML (SUB)CATEGORY, KNOWLEDGE LEVEL]

Date: .....

Signed: .....

For: [COMPANY NAME]

EASA Form 148a Issue ~~4~~2

(\*) Or 'EASA', if EASA is the competent authority.

(\*\*) ~~N~~Delete as appropriate. Possible cases:

- attended and passed the basic training ~~course(s)~~; or
- attended only the basic training ~~course(s)~~; or





- passed only the basic **knowledge theoretical** examination(s).



**CERTIFICATE OF RECOGNITION**

Reference: [MEMBER STATE CODE (\*)].CAA.[XXXX].[YYYY]

The certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By:

[COMPETENT AUTHORITY NAME]

[COMPETENT AUTHORITY ADDRESS]

after having conducted examination in accordance with Section B, Subpart C of Annex III (Part-66) to Commission Regulation (EU) No 1321/2014.

This certificate attests that the above-named person has successfully passed the basic knowledge theoretical examination(s) stated below in compliance with Regulation (EU) 2018/1139 of the European Parliament and of the Council and with Commission Regulation (EU) No 1321/2014.

[BASIC KNOWLEDGE THEORETICAL EXAMINATION(S)]

[LIST OF PART-66 MODULES] /

[LOCATION AND DATE OF EXAMINATION PASSED]

[SPECIFY THE AML (SUB)CATEGORY, KNOWLEDGE LEVEL]

Date: .....

Signed: .....

For: [COMPETENT AUTHORITY NAME]

EASA Form 148b Issue 12



## 2. Aircraft Type Training-~~Examination and Assessment~~

- (a) The aircraft type training certificate template shall be used for recognition of completion of either the aircraft type theoretical examination ~~element of the theoretical element (training included)~~ or the aircraft type practical assessment ~~element of practical element (training included)~~, or both elements ~~of the type rating training course (Appendix III to Annex III (Part-66), points 1(a) and (b))~~.
- (b) The certificate may only be issued to one person and shall clearly identify such person by:
- (1) full name;
  - (2) date of birth;
  - (3) place of birth.
- (c) The certificate may be issued by only one approved maintenance training organisation and shall clearly identify the issuing organisation by:
- (1) registered name;
  - (2) address, to be understood as principal place of business;
  - (3) approval number.
- (d) The certificate may only be issued for one aircraft type training or part of an aircraft type training and shall clearly identify such training by:
- (1) the dates of commencement and finalisation, and the duration in hours;
  - (2) the dates when the theoretical examination and practical assessment were passed, as applicable;
  - (3) the location where the aircraft type training was conducted;
  - (4) the corresponding aircraft maintenance licence (sub)category, or (sub)categories in the case of a combined training for more than one category or subcategory from the terms of approval;
  - (5) the knowledge level referred to in Appendix I and Appendix VII to Annex III (Part-66);
  - (6) the corresponding aircraft type rating or, in the case of aircraft type training covering the differences between two different aircraft type ratings of the same manufacturer, both the corresponding aircraft type rating and the aircraft type rating from which the differences are identified, as well as the interface areas;
  - (7) the indication of the airframe-engine combination.
- (e) A certificate of recognition for aircraft type theoretical examination or aircraft type practical assessment may be issued only on EASA Forms 149a or 149b.
- (f) EASA Form 149a shall be used for aircraft type theoretical examinations or aircraft type practical assessments conducted by a training organisation approved in accordance with Annex IV (Part-147).
- (g) EASA Form 149b shall be used for aircraft type theoretical examinations conducted by the competent authority in accordance with Section B, Subpart C of Annex III (Part-66) to



Commission Regulation (EU) No 1321/2014 or as recognition of completion of aircraft type training approved through the direct approval procedure of point 66.B.130 of Annex III (Part-66).

### **3. Aircraft Type Evaluation**

- (a) The aircraft type evaluation certificate template shall be used for recognition of completion of either the aircraft type theoretical examination element or the aircraft type practical assessment element, or both elements.
- (b) The certificate may only be issued to one person and shall clearly identify such person by:
- (1) full name;
  - (2) date of birth;
  - (3) place of birth.
- (c) The certificate may be issued by only one approved maintenance training organisation and shall clearly identify the issuing organisation by:
- (1) registered name;
  - (2) address, to be understood as principal place of business;
  - (3) approval number.
- (d) The certificate may only be issued for one aircraft type evaluation and shall clearly identify such training by:
- (1) the dates when the aircraft type evaluation was passed;
  - (2) the location where the aircraft type evaluation was conducted;
  - (3) the corresponding aircraft maintenance licence (sub)category;
  - (4) the corresponding aircraft type rating.
- (e) A certificate of recognition for aircraft type evaluation may be issued only on EASA Forms 149a or 149b, adapted accordingly.
- (f) EASA Form 149a shall be used for aircraft type evaluation conducted by a training organisation approved in accordance with Annex IV (Part-147).
- (g) EASA Form 149b shall be used for aircraft type evaluations conducted by the competent authority in accordance with Appendix III to Annex III (Part-66).

### **4. Aircraft Task Training**

- (a) The aircraft type evaluation certificate template shall be used for recognition of completion of either the aircraft type theoretical examination element or the aircraft type practical assessment element, or both elements.
- (b) The certificate may only be issued to one person and shall clearly identify such person by:
- (1) full name;
  - (2) date of birth;



- (3) place of birth.
- (c) The certificate may be issued by only one approved maintenance training organisation and shall clearly identify the issuing organisation by:
- (1) registered name;
  - (2) address, to be understood as principal place of business;
  - (3) approval number.
- (d) The certificate may only be issued for one aircraft task training and shall clearly identify such training by:
- (1) the dates of commencement and finalisation, and the duration in hours
  - (2) the location where the aircraft task training was conducted;
  - (3) the corresponding aircraft maintenance licence (sub)category;
  - (4) the corresponding aircraft type rating.
- (e) A certificate of recognition for aircraft task training may be issued only on EASA Form 149a, adapted accordingly.
- (f) EASA Form 149a shall be used for aircraft task training conducted by a training organisation approved in accordance with Annex IV (Part-147).

~~The certificate shall indicate the airframe/engine combination for which the training was imparted.~~

~~The appropriate references shall be deleted as applicable and the course type box shall detail whether only the theoretical elements or the practical elements were covered or whether theoretical and practical elements were covered.~~

~~The training certificate shall clearly identify if the course is a complete course or a partial course (such as an airframe or powerplant or avionic/electrical course) or a difference course based upon the applicant previous experience, for instance A340 (CFM) course for A320 technicians. If the course is not a complete one, the certificate shall identify whether the interface areas have been covered or not.~~

~~The same form shall be used for the recognition of completion of the aircraft type evaluation (point 66.A.45(d) of Annex III (Part-66) and point 5 of Appendix III to that Annex).~~

~~EASA Form 149a shall be used for training and examinations conducted by a training organisation approved in accordance with Annex IV (Part-147).~~

~~EASA Form 149b shall be used for type training examinations and type evaluations conducted by the competent authority or as recognition of completion of aircraft type training approved through the direct approval procedure of point 66.B.130 of Annex III (Part-66).~~



**CERTIFICATE OF RECOGNITION**

Reference: [MEMBER STATE CODE (\*)].147.[XXXX].[YYYY~~Y~~]

The certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By:

[COMPANY NAME AND ADDRESS]

Reference: [MEMBER STATE CODE (\*)].147.[XXXX]

a maintenance training organisation approved to provide training ~~and conduct examinations~~ within its approval schedule and in accordance with Annex IV (Part-147) to Commission Regulation (EU) No 1321/2014.

This certificate attests that the above-named person has successfully passed the theoretical (\*\*) and/or the practical elements (\*\*) of the ~~approved~~ aircraft type training ~~course~~; or completed the aircraft type evaluation (\*\*); ~~or completed the aircraft task training (\*\*)~~ stated below in compliance with Regulation (EU) 2018/1139 of the European Parliament and of the Council and with Commission Regulation (EU) No 1321/2014.

[AIRCRAFT TYPE TRAINING ~~COURSE~~(\*\*)]

[START and END DATES, ~~DURATION~~],/[LOCATION]

[SPECIFY THE THEORETICAL/PRACTICAL ELEMENTS, ~~AML (SUB)CATEGORY~~, ~~KNOWLEDGE LEVEL~~]

or

[AIRCRAFT TYPE EVALUATION (\*\*)]

[END DATE],/[LOCATION]

[~~SPECIFY THE AIRCRAFT TYPE RATING, AML (SUB)CATEGORY~~]

or

[~~AIRCRAFT TASK TRAINING (\*\*)~~]

[~~START and END DATES, DURATION~~],[~~LOCATION~~]

[~~SPECIFY THE AIRCRAFT TYPE RATING, AML (SUB)CATEGORY~~]

Date: .....

Signed: .....

For: [COMPANY NAME]

EASA Form 149a Issue ~~1~~2

(\*) Or 'EASA', if EASA is the competent authority.

(\*\*) Delete as appropriate. Possible cases:



- completely attended and passed the theoretical elements and positively assessed on the practical elements of the type training ~~course~~;  
or
- completely attended and passed only the theoretical elements; or
- positively assessed on the practical elements; or
- positively completed the aircraft type evaluation; **or**  
**- positively completed the aircraft task training.**



**CERTIFICATE OF RECOGNITION**

Reference: [MEMBER STATE CODE (\*)].CAA.[XXXX].[YYYY]

The certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By:

[COMPETENT AUTHORITY NAME]

[COMPETENT AUTHORITY ADDRESS]

after having conducted examination in accordance with Section B, Subpart C of Annex III (Part-66) to Commission Regulation (EU) No 1321/2014 ~~or according to the procedure for the direct approval of aircraft type training of point 66.B.130 of Annex III (Part-66) to Commission Regulation (EU) No 1321/2014.~~

This certificate attests that the above-named person has successfully passed the theoretical (\*\*) and/or the practical elements (\*\*) of the ~~approved~~ aircraft type training ~~course~~; or completed the aircraft ~~T~~ type ~~E~~ evaluation (\*\*) stated below in compliance with Regulation (EU) 2018/1139 of the European Parliament and of the Council and with Commission Regulation (EU) No 1321/2014.

[AIRCRAFT TYPE TRAINING ~~COURSE~~ (\*\*)]

[START and END DATES, ~~DURATION~~ ~~/~~ [LOCATION]

[SPECIFY THE THEORETICAL/PRACTICAL ELEMENTS, ~~AML (SUB)CATEGORY~~, ~~KNOWLEDGE LEVEL~~]

or

[AIRCRAFT TYPE EVALUATION (\*\*)]

[END DATE] ~~/~~ [LOCATION]

[SPECIFY THE AIRCRAFT TYPE RATING, ~~AML (SUB)CATEGORY~~]

Date: .....

Signed: .....

For: [COMPETENT AUTHORITY NAME]

EASA Form 149b Issue ~~12~~

(\*) Delete as appropriate. Possible cases:

- completely attended and passed the theoretical elements and positively assessed on the practical elements of the type training ~~course~~; or

- completely attended and passed only the theoretical elements; or





- positively assessed on the practical elements; or
- positively completed the aircraft type evaluation.



## Appendix IV to Annex IV — 147.A.20 Terms of approval and scope of work

### Class and rating system for the terms of approval of Part-147 maintenance training organisations

- (a) The table referred to in point (k) provides the possible classes and ratings to be used to establish the terms of approval of the certificate of the organisation approved in accordance with Annex IV (Part-147). An organisation must be granted terms of approval that range from a single class and rating with limitations to all classes and ratings with limitations.
- (b) In addition to the table in point (k), each maintenance training organisation is required to indicate its scope of work in its maintenance training organisation exposition.
- (c) Within the approval class(es) and rating(s) established by the competent authority, the scope of work specified in the maintenance training organisation exposition defines the exact limits of its approval. It is therefore essential that the approval class(es) and rating(s) and the organisation's scope of work match.

(d) Category '*Basic training*' class rating

Basic training shall consist of basic knowledge theoretical training and examinations, and basic knowledge practical training and assessments referred to in the Appendices to Annex III (Part-66) applicable to the aircraft maintenance licence category or subcategory at the level required by the Appendices.

When the organisation has more than one category or subcategory basic training in its terms of approval, a combined training for more than one category or subcategory from its terms of approval and training necessary for the change of an aircraft maintenance licence by adding a category or subcategory (extension), shall be considered part of the terms of approval, subject to both (sub)categories being covered by the scope of work of basic training.

Basic knowledge theoretical examination without its corresponding basic knowledge theoretical training shall be considered part of the terms of approval.

The limitation column must specify the scope of basic training by aircraft maintenance licence category or subcategory, when applicable, thereby indicating the extent of the approval.

(e) Category '*Aircraft type training*' class rating

Aircraft type training shall consist of aircraft type theoretical training and examination, and aircraft type practical training and assessment, specific to an entire aircraft maintenance licence category or subcategory and shall be approved by the competent authority.

Training covering the differences between two different aircraft type ratings of the same manufacturer or between two aircraft maintenance licence categories for the endorsement with the same aircraft type rating, shall be considered part of the terms of approval, subject to both aircraft types being covered by the scope of work for aircraft type training.

The *aircraft type rating* column must specify the aircraft type rating, thereby indicating the extent of the approval.

(f) Category '*Aircraft type evaluation*' class rating



Aircraft type evaluation shall consist of aircraft type theoretical examination and aircraft type practical assessment, specific to an entire aircraft maintenance licence category or subcategory.

The *aircraft type rating* column must specify the aircraft type rating, thereby indicating the extent of the approval.

(g) Category 'Aircraft task training' class rating

Aircraft task training shall consist of aircraft task theoretical training and examination, and aircraft task practical training and assessment, specific to an entire aircraft maintenance licence A category or subcategory.

The *aircraft type rating* column must specify the aircraft type rating, thereby indicating the extent of the approval.

The maintenance training organisation exposition shall contain the detailed scope of work, to include a list of tasks for each aircraft of the aircraft task training class rating.

(h) The *limitation* column is intended to give competent authorities the flexibility to customise an approval for any particular organisation. Ratings may only be mentioned on the approval if they are appropriately limited. The table in point (k) specifies the types of limitations that are possible.

(i) When reference is made to *aircraft type rating*, it shall be understood as the aircraft type rating used for the endorsement of aircraft maintenance licences referred to in Annex III (Part-66).

(j) By way of derogation from point 147.A.150(a)(1), when an aircraft task training list is used that could be subject to frequent amendments, then the organisation may propose to include such amendments in the procedure referred to in point 147.A.150(c) for changes not requiring prior approval.



## (k) Organisation class ratings table

CLASS	RATING	LIMITATION	AIRCRAFT TYPE RATING	
BASIC TRAINING	BT.A (Category A AML)	A1 – AEROPLANES TURBINE		
		A2 – AEROPLANES PISTON		
		A3 – HELICOPTERS TURBINE		
		A4 – HELICOPTERS PISTON		
	BT.B1 (Category B1 AML)	B1.1 – AEROPLANES TURBINE		
		B1.2 – AEROPLANES PISTON		
		B1.3 – HELICOPTERS TURBINE		
		B1.4 – HELICOPTERS PISTON		
	BT.B2 (Category B2 AML)	B2 – ALL AIRCRAFT AVIONICS		
	BT.B2L (Category B2L AML)	B2L – COMMUNICATION/NAVIGATION (COM/NAV)		
		B2L – INSTRUMENTS		
		B2L – AUTOFLIGHT		
		B2L – SURVEILLANCE		
	BT.B3 (Category B3 AML)	B3 – PISTON ENGINE NON-PRESSURISED AEROPLANES 2 000 KG MTOM AND BELOW		
		BT.L (Category L AML)	L1C – COMPOSITE SAILPLANES	
			L1 – SAILPLANES	
			L2C – COMPOSITE POWERED SAILPLANES AND COMPOSITE ELA1 AEROPLANES	
	L2 – POWERED SAILPLANES AND ELA1 AEROPLANES			
		L3H – HOT-AIR BALLOONS		
		L3G – GAS BALLOONS		
	L4H – HOT-AIR AIRSHIPS			
	L4G – ELA2 GAS AIRSHIPS			
	L5 – GAS AIRSHIPS OTHER THAN ELA2			
AIRCRAFT TYPE TRAINING	ATT.B1 (Category B1 AML)	B1.1 – AEROPLANES TURBINE	[Shall state the aircraft type rating(s)]	
		B1.2 – AEROPLANES PISTON	[Shall state the aircraft type rating(s)]	
		B1.3 – HELICOPTERS TURBINE	[Shall state the aircraft type rating(s)]	
		B1.4 – HELICOPTERS PISTON	[Shall state the aircraft type rating(s)]	
	ATT.B2 (Category B2 AML)	B2 – ALL AIRCRAFT AVIONICS	[Shall state the aircraft type rating(s)]	
	ATT.C (Category C AML)	C – ALL AEROPLANES AND HELICOPTERS	[Shall state the aircraft type rating(s)]	
	ATT.L (Category L AML)	L5 – GAS AIRSHIPS OTHER THAN ELA2	[Shall state the aircraft type rating(s)]	
	ATE.B1 (Category B1 AML)	B1.1 – AEROPLANES TURBINE	[Shall state the aircraft type rating(s)]	



CLASS	RATING	LIMITATION	AIRCRAFT TYPE RATING
AIRCRAFT TYPE EVALUATION		B1.2 – AEROPLANES PISTON	[Shall state the aircraft type rating(s)]
		B1.3 – HELICOPTERS TURBINE	[Shall state the aircraft type rating(s)]
		B1.4 – HELICOPTERS PISTON	[Shall state the aircraft type rating(s)]
		ATE.B2 (Category B2 AML)	B2 – ALL AIRCRAFT AVIONICS
	ATE.C (Category C AML)	C – ALL AEROPLANES AND HELICOPTERS	[Shall state the aircraft type rating(s)]
AIRCRAFT TASK TRAINING	ATK.A (Category A AML)	A1 – AEROPLANES TURBINE	[Shall state the aircraft type rating for each aircraft in the scope of work]
		A2 – AEROPLANES PISTON	[Shall state the aircraft type rating(s)]
		A3 – HELICOPTERS TURBINE	[Shall state the aircraft type rating(s)]
		A4 – HELICOPTERS PISTON	[Shall state the aircraft type rating(s)]

## GM1 Appendix IV to Annex IV — 147.A.20 Terms of approval and scope of work

### EXAMPLE OF AN ORGANISATION CLASS RATING

(a) The following table presents an example of an organisation approval containing elements from all classes, ratings, and limitations.

CLASS	RATING	LIMITATION	AIRCRAFT TYPE RATING
BASIC TRAINING	BT.A (AML Category A)	A1 – AEROPLANES TURBINE	
		A2 – AEROPLANES PISTON	
		A3 – HELICOPTERS TURBINE	
		A4 – HELICOPTERS PISTON	
	BT.B1 (AML Category B1)	B1.1 – AEROPLANES TURBINE	
		B1.2 – AEROPLANES PISTON	
		B1.3 – HELICOPTERS TURBINE	
		B1.4 – HELICOPTERS PISTON	
	BT.B2 (AML Category B2)	B2 – ALL AIRCRAFT AVIONICS	
	BT.B2L (AML Category B2L)	B2L – COMMUNICATION/NAVIGATION (COM/NAV)	
		B2L – INSTRUMENTS	
		B2L – AUTOFIGHT	
		B2L – SURVEILLANCE	
	BT.B3 (AML Category B3)	B3 – PISTON ENGINE NON-PRESSURISED AEROPLANES	
2 000 KG MTOM AND BELOW			
BT.L	L1C – COMPOSITE SAILPLANES		



CLASS	RATING	LIMITATION	AIRCRAFT TYPE RATING
	(AML Category L)	L1 – SAILPLANES L2C – COMPOSITE POWERED SAILPLANES AND COMPOSITE ELA1 AEROPLANES L2 – POWERED SAILPLANES AND ELA1 AEROPLANES L3H – HOT-AIR BALLOONS L3G – GAS BALLOONS L4H – HOT-AIR AIRSHIPS L4G – ELA2 GAS AIRSHIPS L5 – GAS AIRSHIPS OTHER THAN ELA2	
AIRCRAFT TYPE TRAINING	ATT.B1 (AML Category B1)	B1.1 – AEROPLANES TURBINE	1. Airbus A318/A319/A320/A321 (CFM56) 2. Airbus A319/A320/A321 (CFM LEAP-1A) 3. Airbus A319/A320/A321 (IAE PW1100G) 4. Aero Ae-270 (PWC PT6) Differences training(s): 1→2; 1→3; 1→2/3; 2→3; 3→2
		B1.2 – AEROPLANES PISTON	1. Thorp T-211 (Continental) 2. Aero AT-3 (Rotax) 3. IAR-46 (Rotax)
		B1.3 – HELICOPTERS TURBINE	1. Agusta AB204, AB205 / Bell 204, 205 (Honeywell T53) 2. Eurocopter AS 332 (Turbomeca Makila 1A/1A1) 3. Eurocopter AS 350 (Lycoming LTS101) Differences training(s): 2→3; 3→2
		B1.4 – HELICOPTERS PISTON	1. Silvercraft SH-4 (Franklin)
	ATT.B2 (AML Category B2)	B2 – ALL AIRCRAFT AVIONICS	1. Airbus A318/A319/A320/A321 (CFM56) 2. Airbus A319/A320/A321 (CFM LEAP-1A) 3. Aero Ae-270 (PWC PT6) 4. Airbus A319/A320/A321 (IAE V2500) 5. Airbus A330 (GE CF6) 6. Thorp T-211 (Continental) 7. Agusta AB204, AB205 / Bell 204, 205 (Honeywell T53) 8. Eurocopter AS 350 (Lycoming LTS101) 9. Skyship (Porsche) Differences training(s): 1→2; 1→4; 1→4/5; 2→4; 4→2
	ATT.C (AML Category C)	C – ALL AEROPLANES AND HELICOPTERS	1. Airbus A318/A319/A320/A321 (CFM56) 2. Airbus A319/A320/A321 (CFM LEAP-1A) 3. Aero Ae-270 (PWC PT6) 4. Airbus A319/A320/A321 (IAE V2500) 5. Airbus A330 (GE CF6)



CLASS	RATING	LIMITATION	AIRCRAFT TYPE RATING
			6. Thorp T-211 (Continental) 7. Agusta AB204, AB205 / Bell 204, 205 (Honeywell T53) 8. Eurocopter AS 350 (Lycoming LTS101) Differences training(s): 1→2; 1→4; 1→4/5; 4→1/2
	ATT.L (AML Category L)	L5 – GAS AIRSHIPS OTHER THAN ELA2	1. Skyship (Porsche)
AIRCRAFT TYPE EVALUATION	ATE.B1 (AML Category B1)	B1.1 – AEROPLANES TURBINE	1. Aero Ae-270 (PWC PT6)
		B1.2 – AEROPLANES PISTON	1. Thorp T-211 (Continental)
		B1.3 – HELICOPTERS TURBINE	1. Eurocopter AS 350 (Lycoming LTS101)
		B1.4 – HELICOPTERS PISTON	1. Silvercraft SH-4 (Franklin) 2. Brantly B2 (Lycoming)
	ATE.B2 (AML Category B2)	B2 – ALL AIRCRAFT AVIONICS	1. Thorp T-211 (Continental) 2. Eurocopter AS 350 (Lycoming LTS101) 3. Brantly B2 (Lycoming)
	ATE.C (AML Category C)	C – ALL AEROPLANES AND HELICOPTERS	1. Aero Ae-270 (PWC PT6) 2. Thorp T-211 (Continental) 3. Eurocopter AS 350 (Lycoming LTS101) 4. Silvercraft SH-4 (Franklin)
AIRCRAFT TASK TRAINING	ATK.A (AML Category A)	A1 – AEROPLANES TURBINE	1. Dornier 328-100 (PWC PW119)  2. Airbus A318/A319/A320/A321 (CFM56)  3. Airbus A319/A320/A321 (CFM LEAP-1A)  4. Airbus A319/A320/A321 (IAE PW1100G)  5. Aero Ae-270 (PWC PT6)
		A2 – AEROPLANES PISTON	1. Thorp T-211 (Continental) 2. IAR-46 (Rotax) 3. Piper PA-60/61 Pressurised (Lycoming)
		A3 – HELICOPTERS TURBINE	1. Agusta AB204, AB205 / Bell 204, 205 (Honeywell T53) 2. Eurocopter AS 332 (Turbomeca Makila 1A/1A1) 3. Eurocopter AS 350 (Lycoming LTS101)
		A4 – HELICOPTERS PISTON	1. Robinson R22/R44 Series (Lycoming)

(b) Aircraft type rating is intended to mean the aircraft type rating referred to in Appendix I to AMC to Annex III (Part-66).



(c) Aircraft type differences training references are entered on the certificate in the *aircraft type rating* column at the corresponding limitation line.

(1) The following code is used for identifying differences training(s) on the certificate of the organisation:

Aircraft type rating <u>from</u> which the differences are being identified (the source) will be entered to the left of the arrow symbol	Arrow symbol to describe the source, direction, and target	Aircraft type rating <u>to</u> be obtained with the differences (the target) will be entered to the right of the arrow symbol
[enter the criteria number used in the certificate to record the aircraft type rating from which the differences are being identified]	[enter the arrow symbol with the arrowhead to the right]	[enter the criteria number used in the certificate to record the aircraft type rating to be obtained with the differences]
1	→	4

(2) Differences training references within the same limitation are to be separated by a semicolon ';'.  
 (3) In the case of differences training where the source and the target may be reversed, simply reverse the order in the code, e.g. 4→1, without changing the direction of the symbol, and add both training references separately to the certificate, e.g. 1→4; 4→1.

(3) In the case of differences training from one source to multiple targets within the same training, add all targets to the code, separated by a forward slash '/', e.g. 1→4/5.

(d) Rating codes, e.g. BT.A ,are intended to be further developed limitation codes, e.g. BT.A1, (to refer to basic training for A1 AML subcategory) to be used in the scope of work, procedures and, training programme, as required.





## APPENDICES TO AMC TO ANNEX IV (PART-147)

### ~~Appendix I — Maintenance training organisation exposition (MTOE)~~

- ~~1. The following subject headings form the basis of the MTOE required by 147.A.140.~~
- ~~2. Whilst this format is recommended, it is not mandatory to assemble the MTOE in this manner as long as a cross-reference index is included in the MTOE as an Appendix and the Part 1 items remain in Part 1.~~
- ~~3. Part 2, 3 and 4 material may be produced as separate detailed manuals subject to the main exposition containing the Part 2, 3 and 4 fundamental principles and policy on each item. It is then permitted to delegate the approval of these separate manuals to the senior person but this fact and the procedure should be specified in paragraph 1.10.~~
- ~~4. Where an organisation is approved in accordance with any other Part(s) which require an exposition, it is acceptable to combine the exposition requirements by merging the Part 1 items and adding the Parts 2, 3 and 4. When this method is used, it is essential to include the cross reference index of Part 4 item 4.3.~~

#### ~~PART 1 — MANAGEMENT~~

- ~~1.1. Corporate commitment by accountable manager~~
- ~~1.2. Management personnel~~
- ~~1.3. Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor~~
- ~~1.4. Management personnel organisation chart~~
- ~~1.5. List of instructional and examination staff~~  
~~Note: A separate document may be referenced~~
- ~~1.6. List of approved addresses~~
- ~~1.7. List of sub-contractors as per 147.A.145(d)~~
- ~~1.8. General description of facilities at paragraph 1.6 addresses~~
- ~~1.9. Specific list of courses and type examinations approved by the competent authority~~
- ~~1.10. Notification procedures regarding changes to organisation~~
- ~~1.11. Exposition and associated manuals amendment procedure~~

#### ~~PART 2 — TRAINING AND EXAMINATION PROCEDURES~~

- ~~2.1. Organisation of courses~~
- ~~2.2. Preparation of course material~~
- ~~2.3. Preparation of classrooms and equipment~~
- ~~2.4. Preparation of workshops/maintenance facilities and equipment~~



- ~~2.5.— Conduct of theoretical training & practical training (during basic knowledge training and type/task training)~~
- ~~2.6.— Records of training carried out~~
- ~~2.7.— Storage of training records~~
- ~~2.8.— Training at locations not listed in paragraph 1.6~~
- ~~2.9.— Organisation of examinations~~
- ~~2.10.— Security and preparation of examination material~~
- ~~2.11.— Preparation of examination rooms~~
- ~~2.12.— Conduct of examinations (basic knowledge examinations, type/task training examinations and type examinations)~~
- ~~2.13.— Conduct of practical assessments (during basic knowledge training and type/task training)~~
- ~~2.14.— Marking and record of examinations~~
- ~~2.15.— Storage of examination records~~
- ~~2.16.— Examinations at locations not listed in paragraph 1.6~~
- ~~2.17.— Preparation, control & issue of basic training course certificates~~
- ~~2.18.— Control of sub-contractors~~

### ~~PART 3 — TRAINING SYSTEM QUALITY PROCEDURES~~

- ~~3.1.— Audit of training~~
- ~~3.2.— Audit of examinations~~
- ~~3.3.— Analysis of examination results~~
- ~~3.4.— Audit and analysis remedial action~~
- ~~3.5.— Accountable manager annual review~~
- ~~3.6.— Qualifying the instructors~~
- ~~3.7.— Qualifying the examiners and the assessors~~
- ~~3.8.— Records of qualified instructors & examiners~~

### ~~PART 4 — APPENDICES~~

- ~~4.1.— Example of documents and forms used~~
- ~~4.2.— Syllabus of each training course~~
- ~~4.3.— Cross-reference index – if applicable~~



**Appendix II — EASA Form 4**

**{COMPETENT AUTHORITY}**

~~Details of Management Personnel required to be accepted as specified in Part .....~~

1. ~~Name:~~

2. ~~Position:~~

3. ~~Qualifications relevant to the item (2) position:~~

4. ~~Work experience relevant to the item (2) position:~~

~~Signature: ..... Date: .....~~

~~On completion, please send this form under confidential cover to the competent authority.~~

---

~~Competent authority use only~~

~~Name and signature of authorised competent authority staff member accepting this person:~~

~~Signature: ..... Date: .....~~

~~Name: ..... Office: .....~~

EASA Form 4



## Appendix III to AMC to Annex IV — AMC2 145.B.310(c) Initial certification procedure ~~EASA Form 22~~

### EASA FORM 22

#### PART-147 APPROVAL RECOMMENDATION REPORT — EASA FORM 22

##### Part 1: General

Name of organisation:

Approval reference:

Requested approval rating ~~A~~:

Form 11 dated\*:

Other approvals held (if app.)

Address of facility audited:

Audit period: from \_\_\_\_\_ to :

Date(s) of audit ~~(s)~~:

Audit reference(s):

Persons interviewed:

Competent authority ~~surveyor~~ ~~inspector(s)~~: Signature(s):

Competent authority office: Date of EASA Form 22 ~~p~~ Part 1 completion:

~~\*delete as appropriate~~

~~\*delete where applicable~~



**PART-147 APPROVAL RECOMMENDATION REPORT EASA - FORM 22**

**Part 2: Part-147 Compliance Audit Review**

The five columns may be labelled and used as necessary to record the approval **classified** and/or training activity/examinations, facility, including subcontractor's, reviewed. Against each column used of the following Part-147 **points, sub-paragraphs please** either tick (✓) the box if satisfied with compliance or cross (X) the box if not satisfied with compliance, and specify the reference of the Part 4 finding next to the box or enter 'N/A' where an item is not applicable, or 'N/R' when applicable but not reviewed.

Point	Para	Subject					
147.A.100		Facility requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.105		Personnel requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.110		<del>Records of instructors, examiners and assessors</del> <b>Management system</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.115		Instructional equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.120		<del>Maintenance</del> <b>Training material</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.125		<del>Records</del> <b>keeping</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.130		Training procedures <del>and quality system</del>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>147.A.132</b>		<b>Performance of training activities</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.135		Examinations <b>process</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>147.A.140</b>		<b>Maintenance training organisation exposition (MTOE)</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.145		Privileges of the <del>maintenance training</del> organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.150		Changes to the <del>maintenance training</del> organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>147.A.155</b>		<b>Continued validity</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.160		Findings <b>and observations</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>147.A.170</b>		<b>Access</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>147.A.180</b>		<b>Means of compliance</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.200		<del>Approved by</del> <b>Basic training course</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.205		Basic knowledge <b>theoretical</b> examinations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.210		Basic knowledge <b>practical</b> assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



147.A.300	Aircraft type <del>/task</del> training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.400 305	Aircraft type <del>examinations and task</del> <del>assessment</del> evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.500	Aircraft task training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Competent authority ~~surveyor(s)~~  
inspector(s):

Signature(s):

Competent authority office:

Date of EASA Form 22 ~~p~~Part 2 completion:



PART-147 APPROVAL RECOMMENDATION REPORT - EASA FORM 22	
<b>Part 3: Compliance with 147.A.140 Part-147 Maintenance training organisation exposition (MTOE)</b>	
Please either tick (✓) the box if satisfied with compliance, or cross (X) if not satisfied with compliance, and specify the reference of the Part 4 finding, or enter 'N/A' where an item is not applicable, or 'N/R' when applicable but not reviewed.	
<b>PART 1 MANAGEMENT GENERAL</b>	
1.1	<input type="checkbox"/> <del>Corporate commitment</del> Statement by accountable M manager
1.2	<input type="checkbox"/> Management policy and objectives personnel
1.3	<input type="checkbox"/> <del>Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor</del> Management personnel
1.4	<input type="checkbox"/> <del>Management personnel organisation chart</del> Duties and responsibilities of management personnel
1.5	<input type="checkbox"/> <del>List of instructional and examination staff</del> Management organisation chart
1.6	<input type="checkbox"/> <del>List of approved addresses</del> List of instructors, examiners, and assessors
1.7	<input type="checkbox"/> <del>List of sub-contractors as per 147.A.145(d)</del> Manpower resources
1.8	<input type="checkbox"/> General description of facilities at each location of paragraph 1.6 addresses
1.9	<input type="checkbox"/> <del>Specific list of courses and type examinations approved by the competent authority</del> Organisation's intended scope of work
1.10	<input type="checkbox"/> <del>Notification procedures regarding changes to organisation (including MTOE amendment) requiring prior approval</del> Procedures for changes
1.11	<input type="checkbox"/> <del>Exposition and associated manuals amendment procedures (including MTOE amendment) not requiring prior approval</del> Procedures for changes
1.12	<input type="checkbox"/> Procedure for alternative means of compliance (AltMoC)
<b>PART 2 TRAINING AND EXAMINATION PROCEDURES</b>	
2.1	<input type="checkbox"/> Organisation and duration of training of courses
2.2	<input type="checkbox"/> Preparation of training material course material
2.3	<input type="checkbox"/> Preparation of classrooms and equipment, and virtual training environment
2.4	<input type="checkbox"/> Preparation of workshops/maintenance facilities and equipment
2.5	<input type="checkbox"/> Conduct of theoretical training & practical training (during basic knowledge training and type/task training)
2.6	<input type="checkbox"/> Records of training carried out
2.7	<input type="checkbox"/> Storage of training records
2.8	<input type="checkbox"/> Training in other than approved locations at locations not listed in paragraph 1.6
2.9	<input type="checkbox"/> Organisation of examinations
2.10	<input type="checkbox"/> Security and preparation of examination material
2.11	<input type="checkbox"/> Preparation of examination rooms and equipment



2.12		Conduct <b>and markings</b> of examinations <del>(basic knowledge examinations, type/task training examinations and type examinations)</del>
2.13		Conduct <b>and markings</b> of practical assessments <del>(during basic knowledge training and type/task training)</del>
2.14		<del>Marking and r</del> <b>Records</b> of examinations <b>and assessments</b>
2.15		Storage of examination <b>and assessments</b> records
2.16		<b>Training activities in locations other than the ones identified in the certificate</b> <del>Examinations at locations not listed in paragraph 1.6</del>
2.17		Preparation, control <b>and &amp;</b> issue of <b>Certificates of Recognition</b> <del>basic training course certificates.</del>
2.18		Control of sub-contractors.
<b>PART 3 TRAINING-MANAGEMENT SYSTEM QUALITY-PROCEDURES</b>		
3.1		<b>Monitoring the quality of training activities and activity reports</b> <del>Audit of training</del>
3.2		Audit <b>plan and procedures</b> <del>of examinations</del>
3.3		<b>Product audit and inspections</b> <del>Analysis of examination results.</del>
3.4		<b>Audit findings and corrective action procedure</b> <del>Audit and analysis remedial action</del>
3.5		<b>Investigations of suspicions of violation of the examination rules or any other fraudulent actions</b> <del>Accountable manager annual review</del>
3.6		<b>Competency assessment of personnel</b> <del>Qualifying the instructors</del>
3.7		<b>Instructors, examiners, and assessors qualifications, training, and authorisation</b> <del>Qualifying the examiners and the assessors</del>
3.8		<b>Compliance personnel qualifications, training, and authorisation</b> <del>Records of qualified instructors &amp; examiners.</del>
<b>3.9</b>		<b>Personnel records</b>
<b>3.10</b>		<b>Concession control for deviations from the organisation's procedures</b>
<b>3.11</b>		<b>Management of external personnel</b>
<b>3.12</b>		<b>Management system record-keeping</b>
<b>PART 4 SUPPORTING DOCUMENTS APPENDICES</b>		
4.1		<b>Sample documents</b> <del>Example of documents and forms used.</del>
4.2		Syllabi <b>us</b> <del>of each training course.</del>
4.3		Cross-reference <b>Index</b> <del>if applicable.</del>
4.4		<b>List of subcontractors</b>
MTOE reference: MTOE amendment:		
Competent authority audit staff: Signature(s):		
Competent authority office: Date of EASA Form 22 <b>Part 3</b> completion:		
<b>PART-147 APPROVAL RECOMMENDATION REPORT — EASA FORM 22</b>		
<b>Part 4: Findings regarding Part-147 <b>e</b>Compliance status</b>		





Each level 1 and 2 finding should be recorded **regardless of** whether it has been rectified or not and should be identified by a simple cross reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for **them to take** the necessary corrective action.

Part 2 or 3 reference-	Audit reference(s):  Findings	L e E V e E + L	Corrective action		
			Date Due	Date Closed	Reference



PART-147 APPROVAL RECOMMENDATION REPORT — EASA FORM 22

Part 5: Part-147 ~~a~~ Approval or continued approval or change recommendation\*

Name of organisation:

Approval reference:

Audit reference(s):

~~Applicable Part 147 amendment status:~~

The following Part-147 ~~scope terms~~ of approval ~~is~~ ~~are~~ recommended for this organisation:

Or, it is recommended that the Part-147 ~~scope terms~~ of approval specified in EASA Form 11 referenced ..... ~~should~~ be continued.

Name of recommending competent authority ~~inspector~~ ~~surveyor~~:

Signature of recommending competent authority ~~inspector~~ ~~surveyor~~:

Competent authority office:

Date of recommendation:

EASA Form 22 review (~~quality check~~) : Date:

~~\*delete as appropriate~~



**Appendix IV to AMC to Annex IV — AMC1 147.A.15 Application for an organisation certificate EASA Form 12**

**EASA FORM 12**

EASA FORM 12  
Page 1

APPLICATION FOR PART-147  
INITIAL / CHANGE OF APPROVAL

1. Registered Name & Address of Applicant:
2. Trading Name (if different):
3. Addresses Requiring Approval:
4. Tel No:..... Fax No.....  
EMail.....
5. Terms of approval and scope of work relevant to this application:
6. Position and name of the (proposed\*) Accountable Manager:  
.....
7. Signature of the (proposed\*) Accountable Manager: .....
8. Place: .....
9. Date: .....

**Note (1):** A note giving the address(es) to which the EASA Form(s) should be sent.

**Note (2):** An optional note to give information on any fees payable.

~~Scope of Part 147 Approval Relevant to This Initial \*/ Change of \* Application  
(See other side for training course designators to be used):~~

~~Basic Training:~~

~~Type Training:~~

~~Provide reference to other approvals under the Basic Regulation:~~

\* ~~delete as applicable~~ ~~Cross out whichever is not applicable~~

~~Name & Position of Accountable Manager:~~

~~Space for official use~~

~~Signature of Accountable Manager:~~

~~Date of Application:~~

~~Please send this form with any required fee to be paid  
under National Legislation to your National Aviation Authority~~

