AZƏRBAYCAN RESPUBLİKASININ
RƏQƏMSAL İNKİŞAF VƏ NƏQLİYYAT NAZİRLİYİ
DÖVLƏT MÜLKİ AVİASİYA AGENTLİYİ

ƏMR

№ 40

Bakı şəhəri "10" may 2022-ci il

"Texniki xidmət təşkilatlarına dair Azərbaycan Aviasiya Qaydaları"nın ("Azerbaijan Aviation Rules for Maintenance Organisations") 3-cü nəşrinin qüvvəyə minməsi barədə

Texniki xidmət təşkilatlarının sertifikatlaşdırılmasına dair müvafiq tələbləri müəyyən edən "Texniki xidmət təşkilatlarına dair Azərbaycan Aviasiya Qaydaları"nın (Qaydalar) 3-cü nəşri işlənib hazırlanmışdır.

Sözügedən sənədin tətbiqini təmin etmək məqsədilə "Azərbaycan Respublikasının Nəqliyyat, Rabitə və Yüksək Texnologiyalar Nazirliyi yanında Dövlət Mülki Aviasiya Agentliyi haqqında Əsasnamə"nin 5.6.6-cı yarımbəndini rəhbər tutaraq, **əmr edirəm:**

1. Qaydaların 3-cü nəşri 2022-ci il 16 may tarixindən qüvvəyə minsin.
2. Dövlət Mülki Aviasiya Agentliyi (DMAA) və DMAA-nın tabeliyində "Mülki Aviasiyada Uçuşların Təhlükəsizliyi üzrə Dövlət Müfəttişliyi" publik hüquqi şəxsinin aidiyyəti mütəxəssisləri tərəfindən Qaydaların öyrənilməsi və icrası təmin edilsin.
3. Qaydalar DMAA-nın rəsmi internet saytında dərc edilsin.
4. Əmr bütün şəxsi heyətə çatdırılsın.
5. Əmrin icrasına nəzarət direktorun müavini Hacıağa Hacıyevə həvalə edilsin.

Direktor **Arif Məmmədov**

APPROVED
by SCAA Director Order
№ 40 dd.10 May 2022

AZERBAIJAN AVIATION RULES FOR MAINTENANCE ORGANISATIONS (AAR-145)

State Civil Aviation Agency of the Republic of Azerbaijan

Document № AAR-AIR-011

Edition № 03

Effective date: 16.MAY.2022

Baku

https://www.caa.gov.az

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Distribution and Control

Copy #	Type of Copy	Department	Location
Master	**(S)**	Quality Control and Rulemaking Department	SCAA Library/ Intranet
1	**(S)**	Quality Control and Rulemaking Department	Q-Pulse
2	**(S)**	Quality Control and Rulemaking Department	Official web-site of the SCAA

(S) Soft Copy - (electronic version)

(H) Hard Copy – (printed version)

Note: *Electronic and hard copies are considered "uncontrolled" if they are printed or not included into this distribution list.*

Records of Amendments and Revisions

Ed./Rev. №:	Effective date:	Entered into force by:	Reason
Edition №02	25.APR.2022	Dir.Order №29 dd.15.04.2022	
Edition №03	16.MAY.2022	Dir.Order № 40 dd.10.05.2022	

Abbreviations and Acronyms

AD	Airworthiness Directive
ALI	Airworthiness Limitation Items
AMC	Acceptable Means of Compliance
AMM	Aircraft Maintenance Manual
APU	Auxiliary Power Unit
ATPL	Air Transport Pilot Licence
CAO	Combined Airworthiness Organisation
CAMO	Continuing Airworthiness Management Organisation
CDLCCL	Critical Design Configuration Control Limitations
CMM	Component Maintenance Manual
CPL	Commercial Pilot Licence
EASA	European Union Aviation Safety Agency
EWIS	
ICAO	International Civil Aviation Organisation
ICT	Information and Communication Technologies
IPC	Illustrated Parts Catalogue
JAA	Joint Aviation Authorities
GM	Guidance Material
HF	Human Factor
MEL	Minimum Equipment List
MOE	Maintenance Organisation Exposition
NDT	Non-destructive Testing
SB	Service Bulletin
SCAA	State Civil Aviation Agency
STC	Supplemental Type Certificate
TC	Type Certificate

GENERAL

1. Organisations involved in the maintenance of aircraft and components for installation thereon shall be approved, upon their request, by the SCAA in accordance with the requirements of these Rules.
2. A maintenance organisation that holds a valid approval certificate issued in accordance with AAR-145 may correct, until 2 December 2024 any findings of non-compliance related to the requirements introduced by Edition № 03 of these Rules. Where after 2 December 2024 the organisation has not closed such findings, the approval certificate shall be revoked, limited or suspended in whole or in part.
3. Acceptable means of compliance (AMC) are non-binding standards adopted by the SCAA to illustrate means to establish compliance with Azerbaijan Aviation Rules. The AMCs issued by the SCAA are not of a legislative nature. They cannot create additional obligations on the regulated persons, who may decide to show compliance with the applicable requirements using other means. In this case, however, they lose the presumption of compliance provided by the SCAA AMC and need to demonstrate to the SCAA that they do comply with Azerbaijan Aviation Rules.
4. These Rules shall enter into force on 16th of May, 2022.

TECHNICAL AND ORGANISATION REQUIREMENTS

145.10 Scope

This Section establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval certificate for the maintenance of aircraft and components.

AMC 145.10 Scope

1. Line Maintenance should be understood as any maintenance that is carried out before flight to ensure that the aircraft is fit for the intended flight.

   (a) Line Maintenance may include:

   – Trouble shooting.

   – Defect rectification.

   – Component replacement with use of external test equipment if required. Component replacement may include components such as engines and propellers.

   – Scheduled maintenance and/or checks including visual inspections that will detect obvious unsatisfactory conditions/discrepancies but do not require extensive in depth inspection. It may also include internal structure, systems and powerplant items which are visible through quick opening access panels/doors.

   – Minor repairs and modifications which do not require extensive disassembly and can be accomplished by simple means.

   (b) For temporary or occasional cases (ADs, SBs) the Compliance Monitoring Manager may accept base maintenance tasks to be performed by a line maintenance organisation provided all requirements are fulfilled as defined by the SCAA.

   (c) Maintenance tasks falling outside these criteria are considered to be Base Maintenance.

   (d) Aircraft maintained in accordance with ‘progressive’ type programmes should be individually assessed in relation to this paragraph. In principle, the decision to allow some ‘progressive’ checks to be carried out should be determined by the assessment that all tasks within the particular check can be carried out safely to the required standards at the designated line maintenance station.

2. Where the organisation uses facilities both inside and outside the Republic of Azerbaijan such as satellite facilities, sub-contractors, line stations etc., such facilities may be included in the approval without being identified on the approval certificate subject to the maintenance organisation exposition identifying the facilities and containing procedures to control such facilities and the SCAA being satisfied that they form an integral part of the approved maintenance organisation.

145.15 Application for an organisation certificate

(a) An application for a certificate or an amendment to an existing certificate or renewal of a certificate in accordance with these Rules shall be made in a form and manner established by the SCAA, taking into account the applicable requirements of AAR-M, AAR-ML and these Rules.

(b) Applicants for an initial certificate pursuant to these Rules shall provide the SCAA with:

(1) the results of a pre-audit performed by the organisation against the applicable requirements provided for in AAR-M, AAR-ML and these Rules;

(2) documentation demonstrating how they will comply with the requirements established in these Rules.

AMC 145.15 Application for an organisation certificate

In a form and in a manner established by the SCAA means that the application should be made on an SCAA Form 2 (refer to Appendix III to AMC to AAR-145).

145.20 Terms of approval and scope of work

(a) The organisation's scope of work shall be specified in the maintenance organisation exposition (MOE) in accordance with point 145.70.

(b) The organisation shall comply with the terms of approval attached to the organisation certificate issued by the SCAA, and with the scope of work specified in the MOE.

AMC 145.20 Terms of approval and scope of work

The following table identifies the ATA Specification 2200 chapter for the category C component rating. If the maintenance manual (or equivalent document) does not follow the ATA Chapters, the corresponding subjects still apply to the applicable C rating.

CLASS	RATING	ATA CHAPTERS
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	21
	C2 Auto Flight	22
	C3 Comms and Nav	23 - 34
	C4 Doors - Hatches	52
	C5 Electrical Power & Lights	24 – 33 - 85
	C6 Equipment	25 - 38 - 44 – 45 - 50
	C7 Engine – APU	49 - 71 - 72 - 73 - 74 - 75 - 76 - 77 - 78 - 79 - 80 - 81 - 82 - 83
	C8 Flight Controls	27 - 55 - 57.40 - 57.50 -57.60 - 57.70
	C9 Fuel	28 - 47
	C10 Helicopters - Rotors	62 - 64 - 66 - 67
	C11 Helicopter - Trans	63 - 65
	C12 Hydraulic Power	29
	C13 Indicating/Recording Systems	31 – 42 - 46
	C14 Landing Gear	32
	C15 Oxygen	35

CLASS	RATING	ATA CHAPTERS
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C16 Propellers	61
	C17 Pneumatic & Vacuum	36 - 37
	C18 Protection ice/rain/fire	26 - 30
	C19 Windows	56
	C20 Structural	53 - 54 - 57.10 - 57.20 - 57.30
	C21 Water Ballast	41
	C22 Propulsion Augmentation	84

145.25 Facility requirements

The organisation shall ensure that:

(a) Facilities are provided appropriate for all planned work, ensuring in particular, protection from the weather elements. Specialised workshops and bays are segregated as appropriate, to ensure that environmental and work area contamination is unlikely to occur.

(1) For base maintenance of aircraft, aircraft hangars are both available and large enough to accommodate aircraft on planned base maintenance;

(2) For component maintenance, component workshops are large enough to accommodate the components on planned maintenance.

(b) Office accommodation is provided for the management of the planned work referred to in point (a), and certifying staff so that they can carry out their designated tasks in a manner that contributes to good aircraft maintenance standards.

(c) The working environment including aircraft hangars, component workshops and office accommodation is appropriate for the task carried out and in particular special requirements observed. Unless otherwise dictated by the particular task environment, the working environment must be such that the effectiveness of personnel is not impaired:

(1) temperatures must be maintained such that personnel can carry out required tasks without undue discomfort;

(2) dust and any other airborne contamination are kept to a minimum and not be permitted to reach a level in the work task area where visible aircraft/component surface contamination is evident. Where dust/other airborne contamination results in visible surface contamination, all susceptible systems are sealed until acceptable conditions are re-established;

(3) lighting is such as to ensure each inspection and maintenance task can be carried out in an effective manner;

(4) noise shall not distract personnel from carrying out inspection tasks. Where it is impractical to control the noise source, such personnel are provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks;

(5) where a particular maintenance task requires the application of specific environmental conditions different to the foregoing, then such conditions are observed. Specific conditions are identified in the maintenance data;

(6) the working environment for line maintenance is such that the particular maintenance or inspection task can be carried out without undue distraction. Therefore where the working environment deteriorates to an unacceptable level in respect of temperature, moisture, hail, ice, snow, wind, light, dust/other airborne contamination, the particular maintenance or inspection tasks must be suspended until satisfactory conditions are re-established.

(d) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions ensure segregation of serviceable components and material from unserviceable aircraft components, material, equipment and tools. The conditions of storage are in accordance with the manufacturer's instructions to prevent deterioration and damage of stored items. Access to storage facilities is restricted to authorised personnel.

AMC 145.25(a) Facility requirements

1. Where the hangar is not owned by the organisation, it may be necessary to establish proof of tenancy. In addition, sufficiency of hangar space to carry out planned base maintenance should be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the maintenance programme. The aircraft hangar visit plan should be updated on a regular basis.
2. Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any twelve month period. Aircraft hangar and component workshop structures should prevent the ingress of rain, hail, ice, snow, wind and dust etc. Aircraft hangar and component workshop floors should be sealed to minimise dust generation.
3. For line maintenance of aircraft, hangars are not essential but it is recommended that access to hangar accommodation be demonstrated for usage during inclement weather for minor scheduled work and lengthy defect rectification.
4. Aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete maintenance records in a proper manner.

AMC 145.25(b) Facility requirements

It is acceptable to combine any or all of the office accommodation requirements into one office subject to the staff having sufficient room to carry out the assigned tasks.

In addition, as part of the office accommodation, aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete maintenance records in a proper manner.

AMC 145.25(d) Facility requirements

1. Storage facilities for serviceable aircraft components should be clean, well-ventilated and maintained at a constant dry temperature to minimise the effects of condensation. Manufacturer's storage recommendations should be followed for those aircraft components identified in such published recommendations.
2. Storage racks should be strong enough to hold aircraft components and provide sufficient support for large aircraft components such that the component is not distorted during storage.
3. All aircraft components, wherever practicable, should remain packaged in protective material to minimise damage and corrosion during storage.

145.30 Personnel requirements

(a) The organisation shall appoint an accountable manager who has corporate authority to ensure that all maintenance activities of the organisation can be financed and carried out in accordance with Azerbaijan Aviation Rules. The accountable manager shall:

(1) ensure that all necessary resources are available to accomplish maintenance in accordance with these Rules, AAR-M and AAR-ML, as applicable, to support the organisation certificate;

(2) establish and promote the safety policy specified in point 145.200(a)(2);

(3) demonstrate a basic understanding of these Rules.

(b) The accountable manager shall nominate a person or group of persons representing the management structure for the maintenance functions and with the responsibility to ensure that the organisation works in accordance with the MOE and approved procedures. It shall be made clear in the procedures who deputises for a particular person in the case of lengthy absence of that person.

(c) The accountable manager shall nominate a person or group of persons with the responsibility to manage the compliance monitoring function as part of the management system.

(ca) The accountable manager shall nominate a person or group of persons with the responsibility to manage the development, administration and maintenance of effective safety management processes as part of the management system.

(cb) The person or group of persons nominated in accordance with points (b), (c) and (ca) shall have a responsibility to the accountable manager and direct access to him/her to keep him/her properly informed on compliance and safety matters.

(cc) The person or persons nominated in accordance with points (b), (c) and (ca) shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft or component maintenance and demonstrate a working knowledge of these Rules.

(d) The organisation shall have a maintenance man-hour plan to ensure it has sufficient and appropriately qualified staff to plan, perform, supervise, inspect and monitor the organisation's 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 staff availability is reduced compared to the planned staffing level for a particular work shift or period.

(e) The organisation shall establish and control the competency of the personnel involved in any maintenance, airworthiness reviews, safety management and compliance monitoring in accordance with a procedure and to a standard agreed with the SCAA. In addition to the necessary expertise related to the job function, the competency of the personnel must include an understanding of the application of safety management principles, including human factors and human performance issues, which is appropriate to their function and responsibilities in the organisation.

(f) The organisation shall ensure that personnel who carry out or control a continued-airworthiness non-destructive test of aircraft structures or components, or both, are appropriately qualified for the particular non- destructive test in accordance with the standard recognised by the SCAA. Personnel who carry out any other specialised task shall be appropriately qualified in accordance with officially recognised standards. By derogation from this point, personnel referred to in point (g), points (h)(1) and (h)(2), qualified in category B1,

B3 or L in accordance with AAR-66, may carry out and/or control colour contrast dye penetrant tests.

(g) Any organisation maintaining aircraft, except where stated otherwise in point (j), shall in the case of aircraft line maintenance, have appropriate aircraft-rated certifying staff qualified as category B1, B2, B2L, B3 and L, as appropriate, in accordance with AAR-66 and point 145.35.

In addition such organisations may also use appropriately task-trained certifying staff holding the privileges set out in points 66.20(a)(1) and 66.20(a)(3)(ii) and qualified in accordance with AAR-66 and point 145.35 to carry out minor scheduled line maintenance and simple defect rectification. The availability of such certifying staff shall not replace the need for category B1, B2, B2L, B3 and L certifying staff, as appropriate.

(h) Any organisation maintaining aircraft, except where stated otherwise in point (j), shall:

(1) in the case of base maintenance of complex motor-powered aircraft, have appropriate aircraft-type-rated certifying staff, qualified as category C in accordance with AAR-66 and point 145.35. In addition, the organisation shall have sufficient aircraft-type-rated staff qualified as category B1 and B2, as appropriate, in accordance with AAR-66 and point 145.35 to support the category C certifying staff.

(i) Category B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the certificate of release to service.

(ii) The organisation shall maintain a register of any such category B1 and B2 support staff.

(iii) The category C certifying staff shall ensure that compliance with point (i) has been met and that all work required by the customer has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out, with a view to either requiring its accomplishment or agreeing with the operator to defer such work to another specified check or time limit.

(2) in the case of base maintenance of aircraft other than complex motor-powered aircraft, have one of the following:

(i) appropriate aircraft-rated certifying staff, qualified as category B1, B2, B2L, B3 and L, as appropriate, in accordance with AAR-66 and point 145.35;

(ii) appropriate aircraft-rated certifying staff, qualified in category C and assisted by support staff, as set out in point 145.35(a)(i).

(i) Component certifying staff shall be qualified to the standard acceptable to the SCAA.

(j) By way of derogation from points (g) and (h), in relation to the obligation to comply with AAR-66, the organisation may use certifying staff and support staff that are qualified in accordance with the following provisions:

(1) For base maintenance carried out at a location outside the Republic of Azerbaijan, the certifying staff and support staff may be qualified in accordance with the national aviation regulations of the State in which the base maintenance facility is located, subject to the conditions specified in Appendix IV to these Rules.

(2) For line maintenance carried out at a line station located outside the Republic of Azerbaijan, the certifying staff may be qualified, subject to the conditions specified in Appendix IV to these Rules, in accordance with the following alternative conditions:

- national aviation regulations of the State in which the line station is located,
- national aviation regulations of the State in which the organisation's principal place of business is located.

(3) For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the organisation may issue a limited certification authorisation to the pilot on the basis of the flight crew licence held. In that case, the organisation shall ensure that the pilot has carried out sufficient practical training ensuring that the pilot can accomplish the airworthiness directive.

(4) If an aircraft is operated away from a supported location, the organisation may issue a limited certification authorisation to the pilot on the basis of the flight crew licence held, subject to being satisfied that the pilot has carried out sufficient practical training ensuring that the pilot can accomplish the specified task.

(5) In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the organisation contracted to provide maintenance support may issue a one-off certification authorisation:

(i) to one of its employees holding equivalent type authorisations on aircraft of similar technology, construction and systems; or

(ii) to any person with not less than five years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organisation appropriately approved under these Rules at that location and the contracted organisation obtains and holds on file evidence of the experience and the licence of that person.

All such cases as specified in this point must be reported to the SCAA within seven days after issuing such certification authorisation. The organisation issuing the one-off authorisation shall ensure that any such maintenance that could affect flight safety is re-checked by an appropriately approved organisation.

(k) If the organisation performs airworthiness reviews and issues the corresponding airworthiness review certificate in accordance with point ML.903 of AAR-ML, it shall have airworthiness review staff that are qualified and authorised in accordance with point 145.37.

AMC 145.30(a) Personnel requirements

With regard to the accountable manager, it is normally intended to mean the chief executive officer of the approved maintenance organisation, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be necessarily knowledgeable on technical matters as the maintenance organisation exposition defines the maintenance standards. When the accountable manager is not the chief executive officer the SCAA will need to be assured that such an accountable manager has direct access to chief executive officer and has a sufficiency of 'maintenance funding' allocation.

AMC 145.30(b);(c);(ca) Personnel requirements

1. Dependent upon the size of the organisation, the AAR-145 functions may be subdivided under individual managers or combined in any number of ways.
2. The organisation should have, dependent upon the extent of approval, a base maintenance manager, a line maintenance manager, a workshop manager , a compliance monitoring manager and a safety manager, all of whom should report to the accountable manager except in small AAR-145 organisation where any one manager may also be the accountable manager, as determined by the SCAA, he/she may also be the line maintenance manager or the workshop manager.
3. The base maintenance manager is responsible for ensuring that all maintenance required to be carried out in the hangar, plus any defect rectification carried out during base maintenance, is carried out to the design and quality standards specified in point 145.65. The base maintenance manager is also responsible for any corrective action resulting from compliance monitoring.
4. The line maintenance manager is responsible for ensuring that all maintenance required to be carried out on the line including line defect rectification is carried out to the standards specified in point 145.65 and also responsible for any corrective action resulting from compliance monitoring.
5. The workshop manager is responsible for ensuring that all work on aircraft components is carried out to the standards specified in point 145.65(b) and also responsible for any corrective action resulting from compliance monitoring.
6. The compliance monitoring manager's responsibility is specified in point 145.30(c).
7. The safety manager's responsibility is specified in point 145.30(ca).
8. Notwithstanding the example sub-paragraphs 2 - 7 titles, the organisation may adopt any title for the foregoing managerial positions but should identify to the SCAA the titles and persons chosen to carry out these functions.
9. Where an organisation chooses to appoint managers for all or any combination of the identified AAR-145 functions because of the size of the undertaking, it is necessary that these managers report ultimately through either the base maintenance manager or line maintenance manager or workshop manager or compliance monitoring manager or safety manager, as appropriate, to the accountable manager.

   NOTE: Certifying staff may report to any of the managers specified depending upon which type of control the approved maintenance organisation uses (for example licensed engineers/independent inspection/dual function supervisors etc.) so long as the compliance monitoring staff and safety management staff remain independent.

AMC 145.30(d) Personnel requirements

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

subparagraph, employed means the person is directly employed as an individual by the maintenance organisation approved under AAR-145, whereas contracted means the person is employed by another organisation and contracted by that organisation to the maintenance organisation approved under AAR-145.

2. The maintenance man-hour plan should take into account all maintenance activities carried out outside the scope of the AAR-145 approval.

   The planned absence (for training, vacations, etc.) should be considered when developing the man-hour plan.

3. The maintenance man-hour plan should relate to the anticipated maintenance work load except that when the organisation cannot predict such workload, due to the short term nature of its contracts, then such plan should be based upon the minimum maintenance workload needed for commercial viability. Maintenance work load includes all necessary work such as, but not limited to, planning, maintenance record checks, production of worksheets/cards in paper or electronic form, accomplishment of maintenance, inspection and the completion of maintenance records.

4. In the case of aircraft base maintenance, the maintenance man-hour plan should relate to the aircraft hangar visit plan as specified in AMC 145.25(a).

5. In the case of aircraft component maintenance, the maintenance man-hour plan should relate to the aircraft component planned maintenance as specified in point 145.25(a)(2).

6. The compliance monitoring and safety management function man-hours should be sufficient to meet the requirement of point 145.200. Where compliance monitoring and safety management staff perform other functions, the time allocated to such functions needs to be taken into account in determining compliance monitoring and safety management staff numbers.

7. The maintenance man-hour plan should be reviewed at least every 3 months and updated when necessary.

8. Significant deviation from the maintenance man-hour plan should be reported through the departmental manager to the compliance monitoring manager and the accountable manager for review. Significant deviation means more than a 25% shortfall in available man-hours during a calendar month for any one of the functions specified in point 145.30(d).

AMC1 145.30(e) Personnel requirements

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

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

Competence should be assessed by evaluation of:

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

Validation of the above could include a confirmation check with the organisation(s) that issued such document(s). For that purpose, experience/training may be recorded in a document such as a log book or based on the suggested template in GM3 145.30(e).

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

- which level of ongoing supervision would be required or whether unsupervised work could be permitted;
- whether there is a need for additional training.

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

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

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

1. In accordance with the job function, adequate initial and recurrent training should be provided and recorded to ensure continued competence so that it is maintained throughout the duration of employment/contract.
2. All staff should be able to demonstrate knowledge of and compliance with the maintenance organisation procedures, as applicable to their duties.
3. All staff should be able to demonstrate an understanding of safety management principles, human factors and human performance issues in relation with their job function and be trained as per AMC2 145.30(e).
4. To assist in the assessment of competence and to establish the training needs analysis, job descriptions are recommended for each job function in the organisation. Job descriptions should contain sufficient criteria to enable the required competence assessment.
5. Criteria should allow the assessment to establish that, among others (titles might be different in each organisation):
    - Managers are able to properly manage the work output, processes, resources and priorities described in their assigned duties and responsibilities in a safe compliant manner in accordance with regulations and organisation procedures.
    - Planners are able to interpret maintenance requirements into maintenance tasks, and have an understanding that they have no authority to deviate from the maintenance data.
    - Supervisors are able to ensure that all required maintenance tasks are carried out and, where not completed or where it is evident that a particular maintenance task cannot be carried out to the maintenance data, then such problems will be reported to the 145.30(c) person for appropriate action. In addition, for those supervisors, who also carry out maintenance tasks, that they understand such tasks should not be undertaken when incompatible with their management responsibilities.
    - Mechanics are able to carry out maintenance tasks to any standard specified in the maintenance data and will notify supervisors of defects or mistakes requiring rectification to re-establish required maintenance standards.
    - Specialised services staff are able to carry out specialised maintenance tasks to the standard specified in the maintenance data. They should be able to communicate with supervisors and report accurately when necessary.

- Support staff are able to determine that relevant tasks or inspections have been carried out to the required standard.
- Certifying staff are able to determine when the aircraft or aircraft component is ready to release to service and when it should not be released to service.
- Compliance monitoring staff are able to monitor compliance with AAR-145 identifying noncompliance in an effective and timely manner so that the organisation may remain in compliance with AAR-145
- Staff who have been designated safety management responsibilities are familiar with the relevant processes in terms of hazard identification, risk management, and the monitoring of safety performance.
- All staff are familiar with the safety policy and the procedures and tools that can be used for internal safety reporting.

Competence assessment should be based upon the procedure specified in GM2 145.30(e).

AMC2 145.30(e) Personnel requirements

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

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

1. Initial human factors training should cover all the topics of the training syllabus specified in GM1 145.30(e) either as a dedicated course or else integrated within other training. The syllabus may be adjusted to reflect the particular nature of the organisation. The syllabus may also be adjusted to meet the particular nature of work for each function within the organisation. For example:
   - small organisations not working in shifts may cover in less depth subjects related to teamwork and communication;
   - planners may cover in more depth the scheduling and planning objective of the syllabus and in less depth the objective of developing skills for shift working.

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

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

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

3. Human factors training may be conducted by the maintenance organisation itself, or independent trainers, or any training organisations acceptable to the SCAA.

4. The human factors training procedures should be specified in the maintenance organisation exposition.

AMC3 145.30(e) Personnel requirements

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

Further guidance is provided for training to maintenance organisation personnel in Appendix IV to AMC 145.30(e).

AMC4 145.30(e) Personnel requirements

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

Further guidance on EWIS training programme to maintenance organisation personnel provided in EASA AMC 20-22 is acceptable to the SCAA.

AMC5 145.30(e) Personnel requirements

SAFETY TRAINING

(a) All personnel should receive safety training as appropriate for their safety management related responsibilities. Such training could be classroom-based or computer-based training. Adequate records of all safety training provided should be kept.

(b) Safety training should be delivered by the safety manager or a competent trainer and may be conducted by the maintenance organisation itself, or independent trainers, or any training organisations acceptable to the SCAA.

GM1 145.30(e) Personnel requirements

TRAINING SYLLABUS FOR INITIAL HUMAN FACTORS TRAINING

The training syllabus below identifies the topics and subtopics to be addressed during the human factors training.

The maintenance organisation may combine, divide, change the order of any subject of the syllabus to suit its own needs, as long as all subjects are covered to a level of detail appropriate to the organisation and its personnel.

Some of the topics may be covered in separate training (health and safety, management, supervisory skills, etc.) in which case duplication of training is not necessary.

Where possible, practical illustrations and examples should be used, especially accident and incident reports.

Topics should be related to existing legislation, where relevant. Topics should be related to existing guidance/advisory material, where relevant (e.g. ICAO HF Digests and Training Manual).

Topics should be related to maintenance engineering where possible; too much unrelated theory should be avoided.

1. General/Introduction to human factors
    - 1.1 Need to address human factors
    - 1.2 Statistics
    - 1.3. Incidents
2. Safety Culture/Organisational factors
3. Human Error
    - 3.1 Error models and theories
    - 3.2 Types of errors in maintenance tasks
    - 3.3 Violations
    - 3.4 Implications of errors
    - 3.5 Avoiding and managing errors
    - 3.6 Human reliability
4. Human performance & limitations
    - 4.1 Vision
    - 4.2 Hearing
    - 4.3 Information-processing
    - 4.4 Attention and perception
    - 4.5 Situational awareness
    - 4.6 Memory
    - 4.7 Claustrophobia and physical access
    - 4.8 Motivation
    - 4.9 Fitness/Health
    - 4.10 Stress
    - 4.11 Workload management
    - 4.12 Fatigue

4.13 Alcohol, medication, drugs

4.14 Physical work

4.15 Repetitive tasks/complacency

5. Environment

5.1 Peer pressure

5.2 Stressors

5.3 Time pressure and deadlines

5.4 Workload

5.5 Shift Work

5.6 Noise and fumes

5.7 Illumination

5.8 Climate and temperature

5.9 Motion and vibration

5.10 Complex systems

5.11 Hazards in the workplace

5.12 Lack of manpower

5.13 Distractions and interruptions

6. Procedures, information, tools and practices

6.1 Visual Inspection

6.2 Work logging and recording

6.3 Procedure - practice/mismatch/norms

6.4 Technical documentation - access and quality

6.5. Critical maintenance tasks and error-capturing methods (independent inspection, reinspection, etc.)

7. Communication

7.1 Shift/Task handover

7.2 Dissemination of information

7.3 Cultural differences

8. Teamwork

8.1 Responsibility

8.2 Management, supervision and leadership

8.3 Decision making

9. Professionalism and integrity

9.1 Keeping up to date; currency

9.2 Error provoking behaviour

9.3 Assertiveness

10. Organisation's HF program

10.1 Reporting errors

10.2 Disciplinary policy

10.3 Error investigation

10.4 Action to address problems

10.5 Feedback

GM2 145.30(e) Competence assessment procedure

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

- persons responsible for this process,
- when the assessment should take place,
- credits from previous assessments,
- validation of qualification records,
- means and methods for the initial assessment,
- means and methods for the continuous control of competence including feedback on personnel performance,
- competences to be observed during the assessment in relation with each job function,
- actions to be taken when assessment is not satisfactory,
- recording of assessment results.

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

	Managers	Planners	Supervisor	Certifying staff and support staff	Mechanics	Specialised service staff	Compliance monitoring and safety management staff
Knowledge of applicable officially recognised standards						X	X
Knowledge of auditing techniques: planning, conducting and reporting							X
Knowledge of human factors, human performance and limitations	X	X	X	X	X	X	X
Knowledge of logistics processes	X	X	X				
Knowledge of organisation capabilities, privileges and limitations	X	X	X	X		X	X
Knowledge of AAR-M, AAR-ML, AAR-145 and any other relevant regulations	X	X	X	X			X
Knowledge of relevant parts of the maintenance organisation exposition and procedures	X	X	X	X	X	X	X
Knowledge of occurrence reporting system and understanding of the importance of reporting occurrences, incorrect maintenance data and existing or potential defects		X	X	X	X	X	
Knowledge of safety risks linked to the working environment	X	X	X	X	X	X	X
Knowledge on CDCCL when relevant	X	X	X	X	X	X	X
Knowledge on EWIS when relevant	X	X	X	X	X	X	X
Understanding of professional integrity, behaviour and attitude towards safety	X	X	X	X	X	X	X

	Managers	Planners	Supervisor	Certifying staff and support staff	Mechanics	Specialised service staff	Compliance monitoring and safety management staff
Understanding of conditions for ensuring continuing airworthiness of aircraft and components				X			X
Understanding of his/her own human performance and limitations	X	X	X	X	X	X	X
Understanding of personnel authorisations and limitations	X	X	X	X	X	X	X
Understanding critical maintenance task		X	X	X	X		X
Ability to compile and control completed work cards		X	X	X			
Ability to consider human performance and limitations.	X	X	X	X			X
Ability to determine required qualifications for task performance		X	X	X			
Ability to identify and rectify existing and potential unsafe conditions			X	X	X	X	X
Ability to manage third parties involved in maintenance activity		X	X				
Ability to confirm proper accomplishment of maintenance tasks			X	X	X	X	
Ability to identify and properly plan performance of critical maintenance tasks		X	X	X			
Ability to prioritise tasks and report discrepancies		X	X	X	X		
Ability to process the work requested by the operator		X	X	X			

	Managers	Planners	Supervisor	Certifying staff and support staff	Mechanics	Specialised service staff	Compliance monitoring and safety management staff
Ability to promote the safety policy	X		X				
Ability to properly process removed, uninstalled and rejected parts			X	X	X	X	
Ability to properly record and sign for work accomplished			X	X	X	X	
Ability to recognise the acceptability of parts to be installed prior to fitment				X	X		
Ability to split complex maintenance tasks into clear stages		X					
Ability to understand work orders, work cards and refer to and use applicable maintenance data		X	X	X	X	X	X
Ability to use information systems	X	X	X	X	X	X	X
Ability to use, control and be familiar with required tooling and/or equipment			X	X	X	X	
Adequate communication and literacy skills	X	X	X	X	X	X	X
Analytical and proven auditing skills (for example, objectivity, fairness, open-mindedness, determination, …)							X
Maintenance error investigation skills							X
Resources management and production planning skills	X	X	X				
Teamwork, decision-making and leadership skills	X		X				

GM3 145.30(e) Template for recording experience/training

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

Aviation Maintenance personnel experience credential		
Name: Address: Telephone: Email:		
Independent worker ☐ Trade Group: airframe ☐ engine ☐ electric ☐ avionics ☐ other (specify) ☐ ……		
Employer's details (when applicable) Name: Address: Telephone:		
Maintenance organisation details Name: Address: Telephone: Approval number: Period of employment From: To:		
Domain of employment		
☐ Planning	☐ Engineering	☐ Technical records
☐ Store department	☐ Purchasing	
Mechanics / Technician		
☐ Line Maintenance ☐ Servicing ☐ Scheduled Maintenance ☐ Troubleshooting	☐ Base Maintenance ☐ Removal / installation ☐ Inspection ☐ Troubleshooting ☐ Repair	☐ Component Maintenance ☐ Testing / inspection ☐ Repair ☐ Overhaul ☐ Re-treatment ☐ Reassembly
A/C type	A/C type	Component type

Certifying staff and support staff

☐ Cat. A	☐ Cat. B1	☐ Cat. B2	☐ Cat. C	☐ Component type	☐ Other (e.g. NDT)
A/C Type	A/C Type	A/C Type	A/C Type	Component Type	Specify

Certification privileges: Yes ☐ / No ☐

☐ Specialised services — Speciality (NDT, composites, welding, etc.):

☐ Skilled personnel — Speciality (sheet metal, structures, wireman, upholstery, etc.):

☐ Ground equipment operation

☐ Safety management ☐ Compliance monitoring ☐ Training

Total number of check boxes ticked: ☐

Details of employment

Training received from the contracting organisation

Date	Nature of training

Certified by:

Name:

Date:

Position:

Signature:

Contact details:

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

AMC 145.30(f) Personnel requirements

1. Continued airworthiness non-destructive testing means such testing specified by the type certificate holder /aircraft or engine or propeller manufacturer in accordance with the maintenance data as specified in point 145.45 for in service aircraft/aircraft components for the purpose of determining the continued fitness of the product to operate safely.
2. Appropriately qualified means to Level 1, 2 or 3 as defined by the European Standard EN 4179 dependent upon the non-destructive testing function to be carried out.
3. Notwithstanding the fact that Level 3 personnel may be qualified via EN 4179 to establish and authorise methods, techniques, etc., this does not permit such personnel to deviate from methods and techniques published in the maintenance data, unless the maintenance data the expressly permits such deviation.
4. Notwithstanding the general references in EN 4179 to a national aerospace non-destructive testing (NDT) board, all examinations should be conducted by personnel or organisations under the general control of such a board. In the absence of a national aerospace NDT board, the aerospace NDT board of another State should be used, as defined by the SCAA.
5. Particular non-destructive test means any one or more of the following; Dye penetrant, magnetic particle, eddy current, ultrasonic and radiographic methods including X ray and gamma ray.
6. It should be noted that new methods are and will be developed, such as, but not limited to thermography and shearography, which are not specifically addressed by EN 4179. Until the time this agreed standard is established, such methods should be carried out in accordance with the particular equipment manufacturer's recommendations including any training and examination process to ensure competence of the personnel in the process.
7. Any maintenance organisation approved under AAR-145 that carries out NDT should establish NDT specialist qualification procedures detailed in the exposition and accepted by the SCAA.
8. Boroscoping and other techniques such as delamination coin tapping are non-destructive inspections rather than non-destructive testing. Notwithstanding such differentiation, the maintenance organisation should establish an exposition procedure accepted by the SCAA to ensure that personnel who carry out and interpret such inspections are properly trained and assessed for their competence in the process. Non-destructive inspections, not being considered as NDT by AAR-145 are not listed in Appendix II under class rating D1.
9. The referenced standards, methods, training and procedures should be specified in the maintenance organisation exposition.
10. Any such personnel who intend to carry out and/or control a non-destructive test for which they were not qualified prior to the effective date of AAR-145 should qualify for such non-destructive test in accordance with EN 4179.
11. In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

AMC 145.30(g) Personnel requirements

1. For the purposes of points 66.20(a)(1) and 66.20(a)(3)(ii) personnel of AAR-66, minor scheduled line maintenance means any minor scheduled inspection/check up to and including a weekly check specified in the aircraft maintenance programme. For aircraft maintenance programmes that do not specify a weekly check, the SCAA will determine the most significant check that is considered equivalent to a weekly check.

2. Typical tasks permitted after appropriate task training to be carried out by points 66.20(a)(1) and the 66.20(a)(3)(ii) personnel of AAR-66 for the purpose of these personnel issuing an aircraft certificate of release to service as specified in point 145.50 as part of minor scheduled line maintenance or simple defect rectification are contained in the following list:

   (a) Replacement of wheel assemblies.

   (b) Replacement of wheel brake units.

   (c) Replacement of emergency equipment.

   (d) Replacement of ovens, boilers and beverage makers.

   (e) Replacement of internal and external lights, filaments and flash tubes.

   (f) Replacement of windscreen wiper blades.

   (g) Replacement of passenger and cabin crew seats, seat belts and harnesses.

   (h) Closing of cowlings and refitment of quick access inspection panels.

   (i) Replacement of toilet system components but excluding gate valves.

   (j) Simple repairs and replacement of internal compartment doors and placards but excluding doors forming part of a pressure structure.

   (k) Simple repairs and replacement of overhead storage compartment doors and cabin furnishing items.

   (l) Replacement of static wicks.

   (m) Replacement of aircraft main and APU aircraft batteries.

   (n) Replacement of in-flight entertainment system components other than public address.

   (o) Routine lubrication and replenishment of all system fluids and gases.

   (p) The de-activation only of sub-systems and aircraft components as permitted by the operator's minimum equipment list where such de-activation is agreed by the SCAA as a simple task.

   (q) Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers or the use of special tools.

   (r) Any other task agreed by the SCAA as a simple task for a particular aircraft type. This may include defect deferment when all the following conditions are met:

      – There is no need for troubleshooting; and

      – The task is in the MEL; and

      – The maintenance action required by the MEL is agreed by the SCAA to be simple.

   In the particular case of helicopters, and in addition to the items above, the following:

(s) removal and installation of Helicopter Emergency Medical Service (HEMS) simple internal medical equipment.

(t) removal and installation of external cargo provisions (i.e., external hook, mirrors) other than the hoist.

(u) removal and installation of quick release external cameras and search lights.

(v) removal and installation of emergency float bags, not including the bottles.

(w) removal and installation of external doors fitted with quick release attachments.

(x) removal and installation of snow pads/skid wear shoes/slump protection pads.

No task which requires troubleshooting should be part of the authorised maintenance actions. Release to service after rectification of deferred defects should be permitted as long as the task is listed above.

3. The requirement of having appropriate aircraft-rated certifying staff qualified as category B1, B2, B2L, B3, L, as appropriate, in the case of aircraft line maintenance does not imply that the organisation must have B1, B2, B2L, B3 and L personnel at every line station. The MOE should have a procedure on how to deal with defects requiring those categories of certifying staff.

4. The SCAA may accept that in the case of aircraft line maintenance an organisation has only B1, B2, B2L, B3 or L certifying staff, as appropriate, provided that the SCAA is satisfied that the scope of work, as defined in the MOE, does not need the availability of all those categories of certifying staff. Special attention should be taken to clearly limit the scope of scheduled and non-scheduled line maintenance (defect rectification) to only those tasks that can be certified by the available category of certifying staff.

AMC 145.30(h) Personnel requirements

In accordance with points 145.30(h) and 145.35, the qualification requirements (basic licence, aircraft ratings, recent experience and continuation training) are identical for certifying staff and for support staff. The only difference is that support staff cannot hold certification privileges when performing this role since during base maintenance the release to service will be issued by category C certifying staff.

Nevertheless, the organisation may use as support staff (for base maintenance) persons who already hold certification privileges for line maintenance.

AMC 145.30(j)(4) Personnel requirements

1. For the issue of a limited certification authorisation:

(a) the commander should hold either an air transport pilots license (ATPL), or a commercial pilots license (CPL).

(b) The flight engineer should hold either an ATPL, CPL or a national flight engineer licence acceptable to the SCAA on the aircraft type.

2. In addition the limited certification authorisation is subject to the maintenance organisation exposition containing procedures to address the personnel requirements of point 145.30(e) and associated AMC and guidance material. The procedures should be accepted by the SCAA and should include as a minimum:

(a) Completion of adequate maintenance airworthiness regulation training.

(b) Completion of adequate task training for the specific task on the aircraft. The task training should be of sufficient duration to ensure that the individual has a thorough understanding of the task to be completed and will involve training in the use of associated maintenance data.

(c) Completion of the procedural training as specified in AAR-145.

2.(i) Typical tasks that may be certified and/or carried out by the commander holding an ATPL or CPL are minor maintenance or simple checks included in the following list:

(a) Replacement of internal lights, filaments and flash tubes.

(b) Closing of cowlings and refitment of quick access inspection panels.

(c) Role changes e.g. stretcher fit, dual controls, FLIR, doors, photographic equipment etc.

(d) Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers that are easily accessible but not requiring the use of special tools.

(e) Any check/replacement involving simple techniques consistent with this AMC and as agreed by the SCAA.

2.(ii) Holders of flight engineer licence acceptable to the SCAA on the aircraft type, may only exercise this limited certification authorisation privilege when performing the duties of a flight engineer.

In addition to point 2(i)(a) to (e) other typical minor maintenance or simple defect rectification tasks that may be carried out are included in the following list:

(a) Replacement of wheel assemblies.

(b) Replacement of simple emergency equipment that is easily accessible.

(c) Replacement of ovens, boilers and beverage makers.

(d) Replacement of external lights.

(e) Replacement of passenger and cabin crew seats, seat belts and harnesses.

(f) Simple replacement of overhead storage compartment doors and cabin furnishing items.

(g) Replacement of static wicks.

(h) Replacement of aircraft main and APU aircraft batteries.

(i) Replacement of in-flight entertainment system components other than public address.

(j) The de-activation only of sub-systems and aircraft components as permitted by the operator's minimum equipment list where such de-activation is agreed by the SCAA as a simple task.

(k) Re-setting of tripped circuit breakers under the guidance of maintenance control.

(l) Any other task agreed by the SCAA as a simple task for a particular aircraft type.

3. The authorisation should have a finite life of twelve months subject to satisfactory re-current training on the applicable aircraft type.

GM 145.30(j)(4) Personnel requirements (Flight crew)

For the holder of a flight engineer licence acceptable to the SCAA appendix 1 to FCL 4.160 Technical Training Course (TTC) details the following subjects:

Familiarisation with basic maintenance procedures, to give additional technical background knowledge, especially with respect to the implication of systems malfunctions, and to train the applicant in maintenance related to the Minimum equipment list (MEL).

The theoretical knowledge instruction consists of 100 hours and includes the following elements:

1. Airframe and systems
2. Electrics
3. Powerplant and emergency equipment
4. Flight instruments and automatic flight control systems

Practical skills training provided by an organisation approved under AAR-145 is given which includes 35 hours practical experience in the following subjects:

- Fuselage and flight controls,
- Engines,
- Instruments,
- Landing gear and brakes,
- Cabin/cockpit/emergency equipment,
- De-icing/anti-icing related maintenance activities;
- Ground handling and servicing,
- Certificate of completion.

Following successful completion of the technical training, the training organisation carrying out the theoretical knowledge instruction and/or the practical skill training should provide the applicant with a certificate of satisfactory completion of the course, or part thereof.

AMC 145.30(j)(5) Personnel requirements

1. For the purposes of this sub-paragraph ‘unforeseen’ means that the aircraft grounding could not reasonably have been predicted by the operator because the defect was unexpected due to being part of a hitherto reliable system.
2. A one-off authorisation should only be considered for issue by the compliance monitoring department of the contracted organisation after it has made a reasoned judgement that such a requirement is appropriate under the circumstances and at the same time maintaining the required airworthiness standards. The organisation’s compliance monitoring department will need to assess each situation individually prior to the issuance of a one-off authorisation.
3. A one-off authorisation should not be issued where the level of certification required could exceed the knowledge and experience level of the person it is issued to. In all cases, due consideration should be given to the complexity of the work involved and the availability of required tooling and/or test equipment needed to complete the work.

AMC 145.30(j)(5)(i) Personnel requirements

In those situations where the requirement for a one-off authorisation to issue a CRS for a task on an aircraft type for which certifying staff does not hold a type-rated authorisation has been identified, the following procedure is recommended:

1. Flight crew should communicate full details of the defect to the operator's supporting maintenance organisation. If necessary, the supporting maintenance organisation will then request the use of a one-off authorisation from the compliance monitoring department.
2. When issuing a one-off authorisation, the compliance monitoring manager of the organisation should verify that:
   (a) Full technical details relating to the work required to be carried out have been established and passed on to the certifying staff.
   (b) The organisation has an approved procedure in place for coordinating and controlling the total maintenance activity undertaken at the location under the authority of the one-off authorisation.
   (c) The person to whom a one-off authorisation is issued has been provided with all the necessary information and guidance relating to maintenance data and any special technical instructions associated with the specific task undertaken. A detailed step by step worksheet has been defined by the organisation, communicated to the one-off authorisation holder.
   (d) The person holds authorisations of equivalent level and scope on other aircraft type of similar technology, construction and systems.
3. The one-off authorisation holder should sign off the detailed step by step worksheet when completing the work steps. The completed tasks should be verified by visual examination and/or normal system operation upon return to an appropriately approved AAR-145 maintenance facility.

AMC 145.30(j)(5)(ii) Personnel requirements

This paragraph addresses staff not employed by the maintenance organisation who meet the requirements of point 145.30(j)(5). In addition to the items listed in AMC 145.30(j)(5)(i), paragraph 1, 2(a), (b) and (c) and 3 the compliance monitoring department of the organisation may issue such one-off authorisation providing full qualification details relating to the proposed certifying personnel are verified by the compliance monitoring department and made available at the location.

145.35 Certifying staff and support staff

(a) In addition to the requirements of points 145.30(g) and (h), the organisation shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft or components, or both, to be maintained and of the associated organisation procedures. In the case of certifying staff, this shall be accomplished before the issue or reissue of the certification authorisation.

(1) 'Support staff' means those staff holding an aircraft maintenance licence under AAR-66 in category B1, B2, B2L, B3 and/or L with the appropriate aircraft ratings, working in a base maintenance environment while not necessarily holding certification privileges.

(2) 'Relevant aircraft and/or components', means those aircraft or components specified in the particular certification authorisation.

(3) 'Certification authorisation' means the authorisation issued to certifying staff by the organisation and which specifies the fact that those staff may sign certificates of release to service within the limitations stated in such authorisation on behalf of the approved organisation.

(b) Except for the cases listed in points 145.30(j) and point 66.20(a)3(ii) of AAR-66, the organisation may only issue a certification authorisation to certifying staff in relation to the basic categories or subcategories and, except for the category A licence, any type rating listed on the aircraft maintenance licence as required by AAR-66, subject to the licence remaining valid throughout the validity period of the authorisation and to the certifying staff remaining in compliance with AAR-66.

(c) The organisation shall ensure that all certifying staff and support staff are involved in at least 6 months of actual relevant aircraft or component maintenance experience in any consecutive 2-year period.

For the purpose of this point 'involved in actual relevant aircraft or component maintenance' means that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorisation and/or has actually carried out maintenance on at least some of the aircraft type or aircraft group systems specified in the particular certification authorisation.

(d) The organisation shall ensure that all certifying staff and support staff receive sufficient recurrent training in each 2-year period to ensure that they have up-to-date knowledge of relevant technologies, organisation procedures and safety management, including human factor issues.

(e) The organisation shall establish a programme for recurrent training for certifying staff and support staff, including a procedure to ensure compliance with the relevant provisions of this point and a procedure to ensure compliance with AAR-66.

(f) With the exception of the unforeseen cases specified in point 145.30(j)(5), the organisation shall assess all certifying staff for their competency, qualifications and capability to carry out their intended certifying duties in accordance with a procedure in the MOE prior to the issue or reissue of a certification authorisation under these Rules to such staff.

(g) When the conditions of points (a), (b), (d), (f) and, where applicable, point (c) have been fulfilled by the certifying staff, the organisation shall issue a certification authorisation that clearly specifies the scope and limits of such authorisation. Continued validity of the

certification authorisation is dependent upon continued compliance with points (a), (b), (d), and where applicable, (c).

(h) The certification authorisation must be in a style that makes its scope clear to the certifying staff and any authorised person who may require to examine the authorisation. Where codes are used to define scope, the organisation shall make a code translation readily available. 'Authorised person' means the officials of the SCAA.

(i) The person or persons referred to in point 145.30(c) that are responsible for the compliance monitoring function shall also remain responsible for issuing certification authorisations to certifying staff. That personnel may nominate other persons to effectively issue or revoke certification authorisations in accordance with a procedure in the MOE.

(j) The organisation shall provide certifying staff with a copy of their certification authorisation in either a documented or electronic format.

(k) Certifying staff shall produce their certification authorisation to any authorised person within 24 hours.

(l) The minimum age for certifying staff and support staff is 21 years.

(m) The holder of a category A aircraft maintenance licence may only exercise certification privileges on a specific aircraft type following the satisfactory completion of the relevant category A aircraft task training carried out by an organisation appropriately approved in accordance with AAR-145 or AAR-147. This training shall include practical hands on training and theoretical training as appropriate for each task authorised. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment carried out by the organisation.

(n) The holder of a category B2 aircraft maintenance licence may only exercise the certification privileges described in point 66.20(a)(3)(ii) of AAR-66 following the satisfactory completion of:

(i) the relevant category A aircraft task training; and

(ii) 6 months of documented practical experience covering the scope of the authorisation that will be issued.

The task training shall include practical hands on training and theoretical training as appropriate for each task authorised. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment. Task training and examination/assessment shall be carried out by the maintenance organisation issuing the certifying staff authorisation. The practical experience shall be also obtained within such maintenance organisation.

AMC 145.35(a) Certifying staff and support staff

1. Holding an AAR-66 licence with the relevant type/group rating, or a national qualification in the case of components, does not mean by itself that the holder is qualified to be authorised as certifying staff and/or support staff. The organisation is responsible to assess the competence of the holder for the scope of maintenance to be authorised.

2. The sentence 'the organisation shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organisation procedures' means that the person has received training and has been successfully assessed on:

- the type of aircraft or component;
- the differences on:
  - the particular model/variant;
  - the particular configuration.

The organisation should specifically ensure that the individual competencies have been established with regard to:

- relevant knowledge, skills and experience in the product type and configuration to be maintained, taking into account the differences between the generic aircraft type rating training that the person received and the specific configuration of the aircraft to be maintained.
- appropriate attitude towards safety and observance of procedures.
- knowledge of the associated organisation and operator procedures (i.e. handling and identification of components, MEL use, Technical Log use, independent checks, etc.).

3. Some special maintenance tasks may require additional specific training and experience, including but not limited to:
   - in-depth troubleshooting;
   - very specific adjustment or test procedures;
   - rigging;
   - engine run-up, starting and operating the engines, checking engine performance characteristics, normal and emergency engine operation, associated safety precautions and procedures;
   - extensive structural/system inspection and repair;
   - other specialised maintenance required by the maintenance programme.

For engine run-up training, simulators and/or real aircraft should be used.

4. The satisfactory assessment of the competence should be conducted in accordance with a procedure approved by the SCAA (item 3.4 of the MOE, as described in AMC 145.70(a)).
5. The organisation should hold copies of all documents that attest the competence and recent experience for the period described in point 145.35(j).

Additional information is provided in AMC 66.20(b)(3) of AAR-66.

AMC 145.35(b) Certifying staff and support staff

The organisation issues the certification authorisation when satisfied that compliance has been established with the appropriate points of these Rules and AAR-66. In granting the certification authorisation the maintenance organisation approved under these Rules needs to be satisfied that the person holds a valid AAR-66 aircraft maintenance licence and may need to confirm such fact with the SCAA.

AMC 145.35(c) Certifying staff and support staff

For the interpretation of '6 months of actual relevant aircraft maintenance experience in any consecutive 2-year period', the provisions of AMC 66.20(b)(2) of AAR-66 are applicable.

AMC 145.35(d) Certifying staff and support staff

1. Recurrent training is a two way process to ensure that certifying staff remain current in terms of procedures, human factors and technical knowledge and that the organisation receives feedback on the adequacy of its procedures and maintenance instructions. Due to the interactive nature of this training, consideration should be given to the possibility that such training has the involvement of the compliance monitoring department to ensure that feedback is actioned. Alternatively, there should be a procedure to ensure that feedback is formally passed from the training department to the compliance monitoring department to initiate action.

2. Recurrent training should cover changes in relevant requirements such as these Rules, changes in organisation procedures and the modification standard of the products being maintained plus human factor issues identified from any internal or external analysis of incidents. It should also address instances where staff failed to follow procedures and the reasons why particular procedures are not always followed. In many cases the recurrent training will reinforce the need to follow procedures and ensure that incomplete or incorrect procedures are identified to the company in order that they can be corrected. This does not preclude the possible need to carry out a compliance monitoring audit of such procedures.

3. Recurrent training should be of sufficient duration in each 2 year period to meet the intent of point 145.35(d) and may be split into a number of separate elements. Point 145.35(d) requires such training to keep certifying staff updated in terms of relevant technology, procedures and human factors issues which means it is one part of ensuring compliance monitoring . Therefore sufficient duration should be related to relevant compliance monitoring audit findings and other internal / external sources of information available to the organisation on human errors in maintenance. This means that in the case of an organisation that maintains aircraft with few relevant compliance monitoring audit findings, continuation training could be limited to days rather than weeks, whereas a similar organisation with a number of relevant compliance monitoring audit findings, such training may take several weeks. For an organisation that maintains aircraft components, the duration of continuation training would follow the same philosophy but should be scaled down to reflect the more limited nature of the activity. For example certifying staff who release hydraulic pumps may only require a few hours of continuation training whereas those who release turbine engine may only require a few days of such training. The content of recurrent training should be related to relevant compliance monitoring audit findings and it is recommended that such training is reviewed at least once in every 24 month period.

4. The method of training is intended to be a flexible process and could, for example, include an AAR-147 continuation training course, aeronautical college courses, internal short duration courses, seminars, etc. The elements, general content and length of such training should be specified in the maintenance organisation exposition unless such training is undertaken by an organisation approved under AAR-147 when such details may be specified under the approval and cross referenced in the maintenance organisation exposition.

AMC 145.35(e) Certifying staff and support staff

The programme for recurrent training should list all certifying staff and support staff and when training will take place, the elements of such training and an indication that it was carried out reasonably on time as planned. Such information should subsequently be transferred to the certifying staff and support staff record.

AMC 145.35(f) Certifying staff and support staff

As stated in point 145.35(f), except where any of the unforeseen cases of point 145.30(j)(5) applies, all prospective certifying staff and support staff should be assessed for competence related to their intended duties in accordance with AMCs 1, 2, 3 and 4 to point 145.30(e), as applicable.

AMC 145.35(m) Certifying staff and support staff

1. It is the responsibility of the AAR-145 organisation issuing the category A certifying staff authorisation to ensure that the task training received by this person covers all the tasks to be authorised. This is particularly important in those cases where the task training has been provided by an AAR-147 organisation or by an AAR-145 organisation different from the one issuing the authorisation.
2. 'Appropriately approved in accordance with AAR-147' means an organisation holding an approval to provide category A task training for the corresponding aircraft type.
3. 'Appropriately approved in accordance with these Rules' means an organisation holding a maintenance organisation approval for the corresponding aircraft type.

AMC 145.35(n) Certifying staff and support staff

1. The privilege for a B2 licence holder to release minor scheduled line maintenance and simple defect rectification in accordance with point 66.20(a)(3)(ii) of AAR-66 can only be granted by the AAR-145 approved organisation where the licence holder is employed/contracted after meeting all the requirements specified in point 145.35(o). This privilege cannot be transferred to another AAR-145 approved organisation.
2. When a B2 licence holder already holds a certifying staff authorisation containing minor scheduled line maintenance and simple defect rectification for a particular aircraft type, new tasks relevant to category A can be added to that type without requiring another 6 months of experience. However, task training (theoretical plus practical hands-on) and examination/assessment for these additional tasks is still required.
3. When the certifying staff authorisation intends to cover several aircraft types, the experience may be combined within a single 6-month period.
4. For the addition of new types to the certifying staff authorisation, another 6 months should be required unless the aircraft is considered similar per AMC 66.20(b)(2) of AAR-66 to the one already held.
5. The term '6 months of experience' may include full-time employment or part-time employment. The important aspect is that the person has been involved during a period of 6 months (not necessarily every day) in those tasks which are going to be part of the authorisation.

145.37 Airworthiness review staff

(a) In order to be approved to carry out airworthiness reviews and to issue the corresponding airworthiness review certificates (ARC) for aircraft covered by AAR-ML, the organisation shall have airworthiness review staff that comply with all of the following requirements:

(1) they have acquired experience in continuing airworthiness of at least 1 year for sailplanes and balloons and of at least 3 years for all other aircraft;

(2) they hold a certifying staff authorisation for the corresponding aircraft;

(3) they have acquired knowledge of AAR-M, Subpart C, or of AAR-ML, Subpart C;

(4) they have acquired knowledge of the procedures of the maintenance organisation relevant to the airworthiness review and issue of the airworthiness review certificate.

(b) Before the organisation issues an airworthiness review authorisation to a candidate, that person shall perform an airworthiness review under the supervision of the SCAA or under the supervision of a person that is already authorised as airworthiness review staff by the organisation. If this airworthiness review under supervision is satisfactory, the SCAA shall formally accept that person to become airworthiness review staff.

(c) The organisation shall ensure that the airworthiness review staff can demonstrate appropriate recent continuing airworthiness experience.

145.40 Equipment and tools

(a) The organisation shall have available and use the necessary equipment and tools to perform the approved scope of work.

(1) Where the manufacturer specifies a particular tool or equipment, the organisation shall use that tool or equipment, unless the use of alternative tooling or equipment is agreed by the SCAA via procedures specified in the exposition.

(2) Equipment and tools must be permanently available, except in the case of any tool or equipment that is so infrequently used that its permanent availability is not necessary. Such cases shall be detailed in an exposition procedure.

(3) An organisation approved for base maintenance shall have sufficient aircraft access equipment and inspection platforms/docking as required for the proper inspection of the aircraft.

(b) The organisation shall ensure that all tools, equipment and particularly test equipment, as appropriate, are controlled and calibrated according to an officially recognised standard at a frequency to ensure serviceability and accuracy. Records of such calibrations and traceability to the standard used shall be kept by the organisation.

AMC 145.40(a) Equipment and tools

Once the applicant for approval has determined the intended scope of work for consideration by the SCAA, it will be necessary to show that all tools and equipment as specified in the maintenance data can be made available when needed. All such tools and equipment that require to be controlled in terms of servicing or calibration by virtue of being necessary to measure specified dimensions and torque figures, etc., should be clearly identified and listed in a control register including any personal tools and equipment that the organisation agrees can be used.

AMC 145.40(b) Equipment and tools

1. The control of these tools and equipment requires that the organisation has a procedure to inspect/service and, where appropriate, calibrate such items on a regular basis and indicate to users that the item is within any inspection or service or calibration time-limit. A clear system of labelling all tooling, equipment and test equipment is therefore necessary giving information on when the next inspection or service or calibration is due and if the item is unserviceable for any other reason where it may not be obvious. A register should be maintained for all precision tooling and equipment together with a record of calibrations and standards used.

2. Inspection, service or calibration on a regular basis should be in accordance with the equipment manufacturers' instructions except where the organisation can show by results that a different time period is appropriate in a particular case.

3. In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

145.42 Components

(a) Classification of components. All components shall be classified into the following categories:

(1) Components which are in a satisfactory condition, released on an SCAA Form 1 or equivalent and marked in accordance with AAR-21 or equivalent, unless otherwise specified in AAR-21 or in these Rules.

(2) Unserviceable components which shall be maintained in accordance with this Regulation.

(3) Components categorised as unsalvageable because they have reached their mandatory life limitation or contain a non-repairable defect.

(4) Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the maintenance data and accompanied by evidence of conformity traceable to the applicable standard.

(5) Material, both raw and consumable, used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All material shall be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement as well as the manufacturing and supplier source.

(b) Components, standard parts and materials for installation

(1) The organisation shall establish procedures for the acceptance of components, standard parts and materials for installation to ensure that components, standard parts and materials are in satisfactory condition and meet the applicable requirements of point (a).

(2) The organisation shall establish procedures to ensure that components, standard parts and materials shall only be installed on an aircraft or a component when they are in satisfactory condition, meet the applicable requirements of point (a) and the applicable maintenance data specifies the particular component, standard part or material.

(3) The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities, provided procedures are identified in the exposition.

(iv) Components which are referred to in point 21.307(b)(2) of AAR-21 shall only be installed if considered eligible for installation by the aircraft owner on their own aircraft.

(c) Segregation of components

(i) Unserviceable and unsalvageable components shall be segregated from serviceable components, standards parts and materials.

(ii) Unsalvageable components shall not be permitted to re-enter the component supply system, unless mandatory life limitation have been extended or a repair solution has been approved in accordance with AAR-21.

AMC1 145.42(a)(i) Components

SCAA FORM 1 OR EQUIVALENT

A document equivalent to a SCAA Form 1 may be:

(a) a release document issued by an organisation under the terms of a bilateral agreement signed by the Republic of Azerbaijan;

(b) an EASA Form 1 issued by a Part 21 or Part-145 organisation approved by an EASA Member State;

(c) a JAA Form 1 issued prior to 28 November 2004 by a JAR 145 organisation approved by a JAA Full Member State;

(d) FAA Form 8130-3;

(e) Transport Canada Form 24-0078;

(f) form issued by type certificate holder under authority of the State of Design;

(g) any other equivalent certification acceptable to the SCAA.

GM1 145.42(a)(i) Components

Point 21.307(b) of AAR-21 specifies the new components that do not need an SCAA Form 1 or equivalent to be eligible for installation. Point 21.307(c) of AAR-21 specifies the conditions for the document accompanying the component.

AMC1 145.42(a)(ii) Components

UNSERVICEABLE COMPONENTS

(a) The organisation should ensure the proper identification of any unserviceable components. The unserviceable status of the component should be clearly declared on a tag together with the component identification data and any information that is useful to define actions that are necessary to be taken. Such information should state, as applicable, in-service times, maintenance status, preservation status, failures, defects or malfunctions reported or detected, exposure to adverse environmental conditions, and whether the component is installed on an aircraft that was involved in an accident or incident. Means should be provided to prevent unintentional separation of this tag from the component.

(b) Unserviceable components should typically undergo maintenance due to:

(1) expiry of the service life limit as defined in the aircraft maintenance programme;

(2) non-compliance with the applicable airworthiness directives and other continuing airworthiness requirements mandated by the SCAA;

(3) absence of the necessary information to determine the airworthiness status or eligibility for installation;

(4) evidence of defects or malfunctions; or

(5) being installed on an aircraft that was involved in an incident or accident likely to affect the component's serviceability.

AMC1 145.42(a)(iii) Components

UNSALVAGEABLE COMPONENTS

The following types of components should typically be classified as unsalvageable:

(a) components with non-repairable defects, whether visible or not to the naked eye;

(b) components that do not meet design specifications, and cannot be brought into conformity with such specifications;

(c) components subjected to unacceptable modification or rework that is irreversible;

(d) parts with mandatory life limitations that have reached or exceeded these limitations, or have missing or incomplete records;

(e) components whose airworthy condition cannot be restored due to exposure to extreme forces, heat or adverse environmental conditions;

(f) components for which conformity with an applicable airworthiness directive cannot be accomplished;

(g) components for which maintenance records and/or traceability to the manufacturer cannot be retrieved.

AMC1 145.42(a)(iv) Components

STANDARD PARTS

(a) Standard parts are parts that are manufactured in complete compliance with an established industry, agency, competent authority or other government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all the information that is necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications, etc.

(b) To designate a part as a standard part, the TC holder may issue a standard parts manual accepted by the competent authority of the original TC holder or may make reference in the parts catalogue to the specification to be met by the standard part. Documentation that accompanies standard parts should clearly relate to the particular parts and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions, such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.

(c) An SCAA Form 1 or equivalent is not normally issued and, therefore, none should be expected.

AMC2 145.42(a)(iv) Components

STANDARD PARTS

For sailplanes and powered sailplanes, non-required instruments and/or equipment that are certified under the provision of EASA CS 22.1301(b), if those instruments or equipment, when installed, functioning, functioning improperly or not functioning at all, do not in themselves, or by their effect upon the sailplane and its operation, constitute a safety hazard.

'Required' in the term 'non-required', as used above, means required by the applicable airworthiness code (EASA CS 22.1303, 22.1305 and 22.1307) or required by the relevant regulations for air operations and the applicable Rules of the Air or as required by air traffic management (e.g. a transponder in certain controlled airspace). Examples of non-required

equipment which can be considered to be standard parts may be electrical variometers, bank/slip indicators ball-type, total energy probes, capacity bottles (for variometers), final glide calculators, navigation computers, data logger/barograph/turnpoint camera, bug-wipers and anti-collision systems. Equipment which must be approved in accordance with the airworthiness code shall comply with the applicable ETSO or equivalent and it is not considered to be a standard part (e.g. oxygen equipment).

AMC1 145.42(a)(v) Components

MATERIAL

(a) Consumable material is any material which is only used once, such as lubricants, cements, compounds, paints, chemical dyes and sealants, etc.

(b) Raw material is any material that requires further work to make it into a component part of the aircraft, such as metal, plastic, wood, fabric, etc.

(c) Material both raw and consumable should only be accepted when satisfied that it is to the required specification. To be satisfied, the material and/or its packaging should be marked with the applicable specification and, where appropriate, the batch number.

(d) Documentation that accompanies all materials should clearly relate to the particular material and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions, such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.

(e) An SCAA Form 1 or equivalent should not be issued for such materials and, therefore, none should be expected. The material specification is normally identified in the (S)TC holder's data except in the case where the SCAA has agreed otherwise.

GM1 145.42(b) Components

Used components maintained by a CAO appropriately approved for component maintenance and released on an SCAA Form 1 cannot be installed on complex motor-powered aircraft or aircraft used by a licensed air carrier.

AMC1 145.42(b)(i) Components

ACCEPTANCE OF COMPONENTS FOR INSTALLATION

(a) The procedures for the acceptance of components, standard parts and materials should have the objective of ensuring that the components, standard parts and materials are in satisfactory condition and meet the organisation's requirements. These procedures should be based upon incoming inspections which include:

  (1) physical inspection of the components, standard parts and materials;

  (2) review of the accompanying documentation and data, which should be acceptable in accordance with point 145.42(a).

(b) For the acceptance of components, standard parts and materials from suppliers, the above procedures should include supplier evaluation procedures.

GM1 145.42(b)(i) Components

INCOMING PHYSICAL INSPECTION

(a) To ensure that components, standard parts and materials are in satisfactory condition, the organisation should perform incoming physical inspections.

(b) The incoming physical inspection should be performed before the component is installed on the aircraft.

(c) The following list, although not exhaustive, contains typical checks to be performed:

(1) verify the general condition of the components and their packaging in relation to damages that could affect their integrity;

(2) verify that the shelf life of the component has not expired;

(3) verify that items are received in the appropriate package in respect of the type of the component: e.g. correct ATA 300 or electrostatic sensitive devices packaging, when necessary;

(4) verify that the component has all plugs and caps appropriately installed to prevent damage or internal contamination. Care should be taken when tape is used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.

(d) Items (fasteners, etc.) purchased in batches should be supplied in a package. The packaging should state the applicable specification/standard, part number, batch number, and the quantity of the items. The documentation that accompanies the material should contain the applicable specification/standard, part number, batch number, supplied quantity, and the manufacturing sources. If the material is acquired from different batches, acceptance documentation for each batch should be provided.

GM2 145.42(b)(i) Components

EXAMPLES OF SUPPLIERS

A supplier could be any source that provides components, standard parts or materials to be used for maintenance. Possible sources could be: AAR-145 organisations, production organisations, operators, stockist, distributors, brokers, aircraft owners/lessees, etc.

GM3 145.42(b)(i) Components

SUPPLIER EVALUATION

(a) The following elements should be considered for the initial and recurrent evaluation of a supplier's compliance monitoring system to ensure that the component and/or material is supplied in satisfactory condition:

(1) availability of appropriate up-to-date regulations, specifications (such as component handling/storage data) and standards;

(2) standards and procedures for the training of personnel and competency assessment;

(3) procedures for shelf-life control;

(4) procedures for handling of electrostatic sensitive devices;

(5) procedures for identifying the source from which components and materials were received;

(6) purchasing procedures that identify documentation to accompany components and materials for subsequent use by approved AAR-145 maintenance organisations;

(7) procedures for incoming inspection of components and materials;

(8) procedures for control of measuring equipment that provide for appropriate storage, usage, and for calibration when such equipment is required;

(9) procedures to ensure appropriate storage conditions for components and materials that are adequate to protect the components and materials from damage and/or deterioration. Such procedures should comply with the manufacturers' recommendations and relevant standards;

(10) procedures for adequate packing and shipping of components and materials to protect them from damage and deterioration, including procedures for proper shipping of dangerous goods (e.g. ICAO and ATA specifications);

(11) procedures for detecting and reporting of suspected unapproved components;

(12) procedures for handling unsalvageable components in accordance with applicable regulations and standards;

(13) procedures for batch splitting or redistribution of lots and handling of the related documents;

(14) procedures for notifying purchasers of any components that have been shipped and have later been identified as not conforming to the applicable technical data or standard;

(15) procedures for recall control to ensure that components and materials shipped can be traced and recalled if necessary;

(16) procedures for monitoring the effectiveness of the compliance monitoring system.

(b) Suppliers which are certified to officially recognised standards that have a compliance monitoring system that includes the elements specified in (a) may be acceptable; such standards include:

(1) EN/AS9120 and listed in the OASIS database;

(2) ASA-100;

(3) EASO 2012;

(4) FAA AC 00-56.

The use of such suppliers does not exempt the organisation from its obligations under point 145.42 to ensure that supplied components and materials are in satisfactory condition and meet the applicable criteria of point 145.42.

(c) Supplier evaluation may depend on different factors, such as the type of component, whether or not the supplier is the manufacturer of the component, the TC holder or a maintenance organisation, or even specific circumstances such as aircraft on ground. This evaluation may be limited to a questionnaire from the AAR-145 organisation to its suppliers, a desktop evaluation of the supplier's procedures or an on-site audit, if deemed necessary.

GM1 145.42(b)(ii) Components

INSTALLATION OF COMPONENTS

Components, standard parts and materials should only be installed when they are specified in the applicable maintenance data as specified in point 145.45(b). So, the installation of a component, standard part or material can only be done after checking the applicable maintenance data.

This check should ensure that the part number, modification status, limitations, etc., of the component, standard part or material are the ones specified in the applicable maintenance data of the particular aircraft or component where the component, standard part or material is going to be installed. The organisation should establish procedures to ensure that this check is performed before installation.

AMC1 145.42(b)(iii) Components

FABRICATION OF PARTS FOR INSTALLATION

(a) The agreement of the SCAA on the fabrication of parts by the approved maintenance organisation should be formalised through the approval of a detailed procedure in the Maintenance Organisation Exposition (MOE). This AMC contains principles and conditions to be taken into account for the preparation of an acceptable procedure.

(b) Fabrication, inspection, assembly and test should be clearly within the technical and procedural capability of the organisation.

(c) All necessary data to fabricate the part should be approved either by the type certificate (TC) holder, or design organisation approval holder, or supplemental type certificate (STC) holder.

(d) Items that are fabricated by an organisation approved under AAR-145 may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components, performing work at its own facilities. The permission to fabricate does not constitute approval for manufacture, or to supply externally, and the parts do not qualify for SCAA Form 1 certification. This prohibition also applies to the bulk transfer of surplus inventory, in that locally fabricated parts are physically segregated and excluded from any delivery certification.

(e) Fabrication of parts, modification kits, etc., for onward supply and/or sale may not be conducted by an organisation that is approved under AAR-145.

(f) The data specified in point (c) may include repair procedures that involve the fabrication of parts. Where the data on such parts is sufficient to facilitate fabrication, the parts may be fabricated by an organisation that is approved under AAR-145. Care should be taken to ensure that the data include details of part numbering, dimensions, materials, processes, and any special manufacturing techniques, special raw material specification and/or incoming inspection requirement, and that the approved organisation has the necessary capability to fabricate those parts. That capability should be defined by way of exposition content. Where special processes or inspection procedures are defined in the approved data which are not available at the organisation, the organisation cannot fabricate the part unless the TC/STC holder gives an approved alternative.

(g) Examples of fabrication within the scope of an AAR-145 approval may include but are not limited to the following:

(1) fabrication of bushes, sleeves and shims;

(2) fabrication of secondary structural elements and skin panels;

(3) fabrication of control cables;

(4) fabrication of flexible and rigid pipes;

(5) fabrication of electrical cable looms and assemblies;

(6) formed or machined sheet metal panels for repairs.

All the above-mentioned fabricated parts should be in accordance with the data provided in the overhaul or repair manuals, modification schemes and service bulletins, drawings, or should be otherwise approved by the SCAA.

Note: It is not acceptable to fabricate any item to pattern unless an engineering drawing of the item is produced which includes any necessary fabrication process and which is acceptable to the SCAA.

(h) Where a TC holder or an approved production organisation is prepared to make available complete data which is not referred to in the aircraft manuals or service bulletins but provides manufacturing drawings for items specified in parts lists, the fabrication of these items is not considered to be within the scope of an approval unless agreed otherwise by the SCAA in accordance with a procedure specified in the exposition.

(i) Inspection and identification

Any locally fabricated part should be subject to inspection before, separately, and preferably independently from any inspection of its installation. The inspection should establish full compliance with the relevant manufacturing data, and the part should be unambiguously identified as fit for use by stating conformity to the approved data. Adequate records should be maintained of all such fabrication processes including heat treatment and final inspections. All parts, except those that do not have enough space, should carry a part number which clearly relates it to the manufacturing/inspection data. In addition to the part's number, the organisation's identity should be marked on the part for traceability purposes.

AMC1 145.42(c) Components

SEGREGATION OF COMPONENTS

(a) Unserviceable components should be identified and stored in a secure location that is under the control of the maintenance organisation until a decision is made on the future status of such components. The organisation that declared the component to be unserviceable may transfer its custody after identifying it as unserviceable to the aircraft owner provided that such transfer is reflected in the aircraft logbook, or engine logbook, or component logbook.

(b) 'Secure location under the control of an approved maintenance organisation' refers to a secure location whose security is the responsibility of the approved maintenance organisation. This may include facilities that are established by the organisation at locations different from the main maintenance facilities. These locations should be identified in the relevant procedures of the organisation.

(c) In the case of unsalvageable components, the organisation should:

(1) retain such component in the secure location referred to in point (b);

(2) arrange for the component to be mutilated in a manner that ensures that they are beyond economic salvage or repair before disposing it; or

(3) mark the component indicating that it is unsalvageable, when in agreement with the component owner, the component is disposed of for legitimate non-flight uses (such as training and education aids, research and development), or for non-aviation applications, mutilation is often not appropriate. Alternatively to marking, the original part number or data plate information can be removed or a record kept of the disposal of the components.

GM1 145.42(c)(i) Components

MUTILATION OF COMPONENTS

(a) Mutilation should be accomplished in such a manner that the components become permanently unusable for their originally intended use. Mutilated components should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by replating, shortening and rethreading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.

(b) Mutilation may be accomplished by one or a combination of the following procedures:

(1) grinding;

(2) burning;

(3) removal of a major lug or other integral feature;

(4) permanent distortion of parts;

(5) cutting a hole with cutting torch or saw;

(6) melting;

(7) sawing into many small pieces; and

(8) any other method accepted by the SCAA.

(c) The following procedures are examples of mutilation that are often less successful because they may not be consistently effective:

(1) stamping or vibro-etching;

(2) spraying with paint;

(3) small distortions, incisions, or hammer marks;

(4) identification by tags or markings;

(5) drilling small holes; and

(6) sawing in two pieces only.

145.45 Maintenance data

(a) The organisation shall hold and use applicable current maintenance data which is necessary in the performance of maintenance, including modifications and repairs. “Applicable” means relevant to any aircraft, component or process specified in the organisation’s terms of approval and in any associated capability list.

In the case of maintenance data provided by the person or organisation requesting the maintenance, the organisation shall hold such data when the work is in progress, with the exception of the need to comply with point 145.55(a)(3).

(b) Applicable maintenance data is the data specified in point M.401(b) of AAR-M or in point ML.401(b) of AAR-ML, as applicable.

(c) The organisation shall establish procedures to ensure that if inaccurate, incomplete or ambiguous procedure, practice, information or maintenance instruction is found in the maintenance data used by maintenance personnel, it is recorded as part of the internal safety reporting scheme referred to in point 145.202 and notified to the author of the maintenance data.

(d) The organisation may only modify maintenance instructions in accordance with a procedure that is specified in the MOE. With respect to changes to maintenance instructions, the organisation shall demonstrate that they result in equivalent or improved maintenance standards, and shall inform the author of the maintenance instructions of such changes. For the purposes of this point, “maintenance instructions” mean instructions on how to carry out a particular maintenance task; they exclude the engineering design of repairs and modifications.

(e) The organisation shall provide a common work card or worksheet system to be used throughout the relevant parts of the organisation. In addition, the organisation shall either accurately transcribe the maintenance data referred to in points (b) and (d) onto such work cards or worksheets, or make precise reference to the particular maintenance task or tasks contained in that maintenance data. Work cards and worksheets may be computer generated and held in an electronic database that is adequately protected against unauthorised alteration, and for which there is a backup electronic database which shall be updated within 24 hours after an entry is made to the main electronic database. Complex or long maintenance tasks shall be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure that there is a record of the accomplishment of the complete maintenance task.

When the organisation provides maintenance services to an aircraft operator which requires its own work card or worksheet system to be used, then such work card or worksheet system may be used. In that case, the organisation shall establish a procedure to ensure that those work cards or worksheets are correctly completed.

(f) The organisation shall ensure that all applicable maintenance data is readily available for use when required by maintenance personnel.

(g) The organisation shall establish a procedure to ensure that maintenance data it controls is kept up to date. In the case of operator/customer controlled and provided maintenance data, the organisation shall be able to show that either it has written confirmation from the operator/customer that all such maintenance data is up to date or it has work orders specifying the amendment status of the maintenance data to be used or it can show that it is on the operator/customer maintenance data amendment list.

AMC 145.45(b) Maintenance data

1. Except as specified in point 5, each maintenance organisation approved under AAR-145 should hold and use the following minimum maintenance data relevant to the organisation's approval class rating. All maintenance related rules and associated AMCs, approval specifications and Guidance Material, all applicable national maintenance requirements and notices, procedure or directive and all applicable airworthiness directives as well as Critical Design Configuration Control Limitations.
2. In addition to point 1, an organisation with an approval class rating in category A - Aircraft, should hold and use the following maintenance data where published. The appropriate sections of the operator's aircraft maintenance programme, aircraft maintenance manual, repair manual, supplementary structural inspection document, corrosion control document, service bulletins, service letters, service instructions, modification leaflets, NDT manual, parts catalogue, type certificate data sheet and any other specific document issued by the type certificate or supplementary type certificate holder as maintenance data.
3. In addition to point 1, an organisation with an approval class rating in category B — Engines/APUs, should hold and use the following maintenance data where published. The appropriate sections of the engine/APU maintenance and repair manual, service bulletins, service letters, modification leaflets, non-destructive testing (NDT) manual, parts catalogue, type certificate data sheet and any other specific document issued by the type certificate holder as maintenance data.
4. In addition to point 1, an organisation with an approval class rating in category C - Components other than complete engines/APUs, should hold and use the following maintenance data where published. The appropriate sections of the vendor maintenance and repair manual, service bulletins and service letters plus any document issued by the type certificate holder as maintenance data on whose product the component may be fitted when applicable.
5. Appropriate sections of the points 2 to 4 additional maintenance data means in relation to the maintenance work scope at each particular maintenance facility. For example, a base maintenance facility should have almost complete set(s) of the maintenance data whereas a line maintenance facility may need only the maintenance manual and the parts catalogue.
6. An organisation only approved in class rating category D – Specialised services, should hold and use all applicable specialised service(s) process specifications.

GM1 145.45(b) Maintenance data

The provisions of GM1 M.401(b)(3) and (b)(4), GM1 M.401(b)(4) of AAR-M and GM1 ML.401(b) of AAR-ML apply.

AMC 145.45(c) Maintenance data

1. The referenced procedure should ensure that when maintenance personnel discover inaccurate, incomplete or ambiguous information in the maintenance data they should record the details. The procedure should then ensure that the AAR-145 approved maintenance organisation notifies the problem to the author of the maintenance data in a timely manner. A record of such communications to the author of the maintenance data should be retained by the AAR-145 approved organisation until such time as the type certificate holder has clarified the issue by e.g. amending the maintenance data.

2. The referenced procedure should be specified in the maintenance organisation exposition.

AMC 145.45(d) Maintenance data

The referenced procedure should address the need for a practical demonstration by the mechanic to the compliance monitoring personnel of the proposed modified maintenance instruction. When satisfied the compliance monitoring personnel should approve the modified maintenance instruction and ensure that the type certificate or supplementary type certificate holder is informed of the modified maintenance instruction. The procedure should include a paper/electronic traceability of the complete process from start to finish and ensure that the relevant maintenance instruction clearly identifies the modification. Modified maintenance instructions should only be used in the following circumstances:

(a) Where the type certificate / supplementary type certificate holders original intent can be carried out in a more practical or more efficient manner.

(b) Where the type certificate / supplementary type certificate holders original intent cannot be achieved by following the maintenance instructions. For example, where a component cannot be replaced following the original maintenance instructions.

(c) For the use of alternative tools / equipment.

Important Note: Critical Design Configuration Control Limitations (CDCCL) are airworthiness limitations. Any modification of the maintenance instructions linked to CDCCL constitutes an aircraft modification that should be approved in accordance with AAR-21.

AMC 145.45(e) Maintenance data.

1. The maintenance organisation should:
   - transcribe accurately the maintenance data onto such work cards or worksheets, or
   - make precise reference to the particular maintenance task(s) contained in such maintenance data, which already identifies the task as a CDCCL where applicable.
2. Relevant parts of the organisation means with regard to aircraft base maintenance, aircraft line maintenance, engine workshops, mechanical workshops and avionic workshops. Therefore, engine workshops for example should have a common system throughout such engine workshops that may be different to that in the aircraft base maintenance.
3. The workcards should differentiate and specify, when relevant, disassembly, accomplishment of task, reassembly and testing. In the case of a lengthy maintenance task involving a succession of personnel to complete such a task, it may be necessary to use supplementary workcards or worksheets to indicate what was actually accomplished by each individual person.

AMC 145.45(f) Maintenance data

1. Data being made available to personnel maintaining aircraft means that the data should be available in close proximity to the aircraft being maintained for supervisors, mechanics and certifying staff to study.
2. Where computer systems are used, the number of computer terminals should be sufficient in relation to the size of the work programme to enable easy access, unless the computer

system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.

AMC 145.45(g) Maintenance data

To keep data up-to-date, a procedure should be set up to monitor the amendment status of all data and maintain a check that all amendments are being received by being a subscriber to any document amendment scheme. Special attention should be given to TC related data such as certification life-limited parts, airworthiness limitations and Airworthiness Limitation Items (ALI), etc.

145.47 Production planning

(a) The organisation shall have a system appropriate to the amount and complexity of work to plan the availability of all necessary personnel, tools, equipment, material, maintenance data and facilities in order to ensure the safe completion of the maintenance work.

(b) As part of the management system, the planning of maintenance tasks, and the organising of shifts, shall take into account human performance limitations, including the threat of fatigue for maintenance personnel.

(c) When it is required to hand over the continuation or completion of maintenance tasks for reasons of a shift or personnel changeover, relevant information shall be adequately communicated between outgoing and incoming personnel.

(d) The organisation shall ensure that aviation safety hazards associated with external working teams carrying out maintenance at the organisation's facilities are considered by the organisation's management system.

AMC 145.47(a) Production planning

1. Depending on the amount and complexity of work generally performed by the maintenance organisation, the planning system may range from a very simple procedure to a complex organisational set-up including a dedicated planning function in support of the production function.

2. For the purpose of AAR-145, the production planning function includes two complementary elements:

   – scheduling the maintenance work ahead, to ensure that it will not adversely interfere with other work as regards the availability of all necessary personnel, tools, equipment, material, maintenance data and facilities

   – during maintenance work, organising maintenance teams and shifts and provide all necessary support to ensure the completion of maintenance without undue time pressure.

3. When establishing the production planning procedure, consideration should be given to the following:

   – logistics,

   – inventory control,

   – square meters of accommodation,

   – man-hours estimation,

   – man-hours availability,

   – preparation of work,

   – hangar availability,

   – environmental conditions (access, lighting standards and cleanliness),

   – co-ordination with internal and external suppliers, etc.

– scheduling critical maintenance tasks during periods when staff are likely to be most alert.

AMC 145.47(b) Production planning

Limitations of human performance, in the context of planning safety related tasks, refers to the upper and lower limits, and variations, of certain aspects of human performance (Circadian rhythm / 24 hours body cycle) which personnel should be aware of when planning work and shifts.

AMC 145.47(c) Production planning

The primary objective of the changeover / handover information is to ensure effective communication at the point of handing over the continuation or completion of maintenance actions. Effective task and shift handover depends on three basic elements:

– The outgoing person's ability to understand and communicate the important elements of the job or task being passed over to the incoming person.

– The incoming person's ability to understand and assimilate the information being provided by the outgoing person.

– A formalised process for exchanging information between outgoing and incoming persons and a planned shift overlap and a place for such exchanges to take place.

145.48 Performance of maintenance

(a) The organisation may only carry out maintenance on an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data and personnel are available.

(b) The organisation shall be responsible for the maintenance that is performed within the scope of its approval.

(c) The organisation shall ensure that:

(1) after the completion of the maintenance, a general verification is carried out to ensure that the aircraft or component is clear of all tools, equipment and any extraneous parts or material, and that all access panels that were removed have been refitted;

(2) an error-capturing method is implemented after the performance of any critical maintenance task;

(3) the risk of errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised;

(4) damage is assessed, and modifications and repairs are carried out using the data specified in point M.304 of AAR-M or point ML.304 of AAR-ML, as applicable;

(5) the assessment of aircraft defects is carried out in accordance with point M.403(b) of AAR-M or point ML.403(b) of AAR-ML, as applicable.

GM 145.48 Performance of maintenance

AUTHORISED PERSON

An ‘authorised person’ is a person formally authorised by the maintenance organisation to perform or supervise a maintenance task. An ‘authorised person’ is not necessarily ‘certifying staff’.

SIGN-OFF

A ‘sign-off’ is a statement issued by the ‘authorised person’ which indicates that the task or group of tasks has been correctly performed. A ‘sign-off’ relates to one step in the maintenance process and is, therefore, different to a certificate of release to service.

AMC1 145.48(c)(2) Performance of maintenance

The procedure should identify the error-capturing methods, the critical maintenance tasks, the training and qualification of staff applying error-capturing methods, and how the organisation ensures that its staff is familiar with critical maintenance tasks and error-capturing methods.

AMC2 145.48(c)(2) Performance of maintenance

CRITICAL MAINTENANCE TASKS

(a) The procedure should ensure that the following maintenance tasks are reviewed to assess their impact on flight safety:

(1) tasks that may affect the control of the aircraft flight path and attitude, such as installation, rigging and adjustments of flight controls;

(2) aircraft stability control systems (autopilot, fuel transfer);

(3) tasks that may affect the propulsive force of the aircraft, including installation of aircraft engines, propellers and rotors; and

(4) overhaul, calibration or rigging of engines, propellers, transmissions and gearboxes.

(b) The procedure should describe which data sources are used to identify critical maintenance tasks. Several data sources may be used, such as:

(1) information from the design approval holder;

(2) accident reports;

(3) investigation and follow-up of incidents;

(4) occurrence reporting;

(5) flight data analysis;

(6) results of audits;

(7) normal operations monitoring schemes; and

(8) feedback from training.

AMC3 145.48(c)(2) Performance of maintenance

ERROR-CAPTURING METHODS

(a) Error-capturing methods are those actions defined by the organisation to detect maintenance errors made when performing maintenance.

(b) The organisation should ensure that the error-capturing methods are adequate for the work and the disturbance of the system. A combination of several actions (visual inspection, operational check, functional test, rigging check) may be necessary in some cases.

AMC4 145.48(c)(2) Performance of maintenance

INDEPENDENT INSPECTION

Independent inspection is one possible error-capturing method.

(a) What is an independent inspection

An independent inspection is an inspection performed by an ‘independent qualified person’ of a task carried out by an ‘authorised person’, taking into account that:

(1) the ‘authorised person’ is the person who performs the task or supervises the task and they assume the full responsibility for the completion of the task in accordance with the applicable maintenance data;

(2) the ‘independent qualified person’ is the person who performs the independent inspection and attests the satisfactory completion of the task and that no deficiencies have been found. The ‘independent qualified person’ does not issue a certificate of release to service, therefore they are not required to hold certification privileges;

(3) the ‘authorised person’ issues the certificate of release to service or signs off the completion of the task after the independent inspection has been carried out satisfactorily;

(4) the work card system used by the organisation should record the identification of both persons and the details of the independent inspection as necessary before the certificate of release to service or sign-off for the completion of the task is issued.

(b) Qualifications of persons performing independent inspections

The organisation should have procedures to demonstrate that the 'independent qualified person' has been trained and has gained experience in the specific inspection to be performed. The organisation could consider making use of, for example:

(1) staff holding a certifying staff or support staff or sign-off authorisation or equivalent necessary to release or sign off the critical maintenance task;

(2) staff holding a certifying staff or support staff or sign-off authorisation or equivalent necessary to release or sign off similar task in a product of similar category and having received specific practical training in the task to be inspected; or

(3) a commander holding a limited certification authorisation in accordance with point 145.30(j)(4) and having received adequate practical training and having enough experience in the specific task to be inspected and on how to perform independent inspection.

(c) How to perform an independent inspection

An independent inspection should ensure correct assembly, locking and sense of operation. When inspecting control systems that have undergone maintenance, the independent qualified person should consider the following points independently:

(1) all those parts of the system that have actually been disconnected or disturbed should be inspected for correct assembly and locking;

(2) the system as a whole should be inspected for full and free movement over the complete range;

(3) cables should be tensioned correctly with adequate clearance at secondary stops;

(4) the operation of the control system as a whole should be observed to ensure that the controls are operating in the correct sense;

(5) if different control systems are interconnected so that they affect each other, all the interactions should be checked through the full range of the applicable controls; and

(6) software that is part of the critical maintenance task should be checked, for example: version, compatibility with aircraft configuration.

(d) What to do in unforeseen cases when only one person is available

REINSPECTION:

(1) Reinspection is an error-capturing method subject to the same conditions as an independent inspection is, except that the 'authorised person' performing the maintenance task is also acting as 'independent qualified person' and performs the inspection.

(2) Reinspection, as an error-capturing method, should only be performed in unforeseen circumstances when only one person is available to carry out the task and perform the independent inspection. The circumstances cannot be considered unforeseen if the person or organisation has not assigned a suitable 'independent qualified person' to that particular line station or shift.

(3) The certificate of release to service is issued after the task has been performed by the 'authorised person' and the reinspection has been carried out satisfactorily. The work card system used by the organisation should record the identification and the details of the reinspection before the certificate of release to service for the task is issued.

AMC 145.48(c)(3) Performance of maintenance

The procedures should be aimed at:

(a) minimising multiple errors and preventing omissions. Therefore, the procedures should specify:

(1) that every maintenance task is signed off only after completion;

(2) how the grouping of tasks for the purpose of sign-off allows critical steps to be clearly identified; and

(3) that work performed by personnel under supervision (i.e. temporary staff, trainees) is checked and signed off by an authorised person;

(b) minimising the possibility of an error being repeated in identical tasks and, therefore, compromising more than one system or function. Thus, the procedures should ensure that no person is required to perform a maintenance task involving removal/installation or assembly/disassembly of several components of the same type fitted to more than one system, a failure of which could have an impact on safety, on the same aircraft or component during a particular maintenance check. However, in unforeseen circumstances when only one person is available, the organisation may make use of reinspection as described in point (d) of AMC4 145.48(c)(2).

GM 145.48(c)(3) Performance of maintenance

To minimise the risk of multiple errors or errors being repeated, the organisation may implement:

- procedures to plan the performance by different persons of the same task in different systems;
- independent inspection or re-inspection procedures.

GM 145.48(c)(4) Performance of maintenance – critical design configuration control limitations (CDCCL)

The organisation should ensure that when performing maintenance the CDCCL are not compromised. The organisation should pay particular attention to possible adverse effects of any change to the wiring of the aircraft, even of a change not specifically associated with the fuel tank system. For example, it should be common practice to identify segregation of fuel gauging system wiring as a CDCCL. The organisation can prevent adverse effects associated with changes to the wiring by standardising maintenance practices through training, and not through periodic inspections. Training should be provided to avoid indiscriminate routing and splicing of wire and to provide comprehensive knowledge of critical design features of fuel tank systems that would be controlled by a CDCCL. Guidance on the training of maintenance organisation personnel is provided in Appendix IV to AMC 145.30(e).

145.50 Certification of maintenance

(a) A certificate of release to service shall be issued by appropriately authorised certifying staff on behalf of the organisation when that certifying staff has verified that all the maintenance that was ordered has been properly carried out by the organisation in accordance with the procedures specified in point 145.70, taking into account the availability and use of the maintenance data specified in point 145.45, and that there are no known non-compliances which endanger flight safety

(b) A certificate of release to service shall be issued before flight at the completion of any maintenance.

(c) New defects or incomplete maintenance work orders identified during the maintenance shall be brought to the attention of the person or organisation responsible for the aircraft continuing airworthiness for the specific purpose of obtaining agreement to rectify such defects or completing the missing elements of the maintenance work order. In the case where that person or organisation declines to have such maintenance carried out under this point, point (e) is applicable.

(d) A certificate of release to service shall be issued by appropriately authorised certifying staff on behalf of the organisation after the maintenance that was ordered has been carried out on a component whilst it was off the aircraft. The authorised release certificate “SCAA Form 1” referred to in Appendix II of AAR-M constitutes the component certificate of release to service except if otherwise specified in point M.502 of AAR-M or ML.502 of AAR-ML, as applicable. When an organisation maintains a component for its own use, the SCAA Form 1 may not be necessary if the organisation’s internal release procedures in its MOE so provides.’;

(e) By derogation to point (a), when the organisation is unable to complete all maintenance ordered, it may issue a certificate of release to service within the approved aircraft limitations. The organisation shall enter such fact in the aircraft certificate of release to service before the issue of such certificate.

(f) By way of derogation from point 145.50(a) and point 145.42, when an aircraft is grounded at a location other than the main line station or main maintenance base due to the non-availability of a component with the appropriate release certificate, the organisation contracted for the maintenance of that aircraft may temporarily fit a component without the appropriate release certificate for a maximum of 30 flight hours or until the aircraft first returns to the main line station or main maintenance base, whichever is the sooner, subject to the agreement of the person or organisation responsible for the aircraft’s continuing airworthiness and subject to that component having a suitable release certificate but otherwise in compliance with all applicable maintenance and operational requirements. Such components shall be removed by the time limit provided for in the first sentence of this point unless an appropriate release certificate has been obtained in the meantime under points 145.50(a) and 145.42.

AMC 145.50 Certification of maintenance after embodiment of a Standard Change or Standard Repair (SC/SR)

AMC M.801 of AAR-M and AMC1 ML.801 of AAR-ML contain acceptable means of compliance for the release to service of a SC/SR by an organisation approved in accordance with AAR-145.

AMC 145.50(a) Certification of maintenance

'Endangers the flight safety' means any instances where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning, electrical arcing, significant hydraulic fluid or fuel leakage and any emergency system or total system failure. An airworthiness directive overdue for compliance is also considered a hazard to flight safety.

AMC 145.50(b) Certification of maintenance

1. The certificate of release to service should contain the following statement:

   'Certifies that the work specified, except as otherwise specified, was carried out in accordance with AAR-145 and in respect to that work the aircraft/aircraft component is considered ready for release to service'.

   Reference should also be made to the SCAA AAR-145 approval number.

2. It is acceptable to use an alternate abbreviated certificate of release to service consisting of the following statement 'AAR-145 release to service' instead of the full certification statement specified in point 1. When the alternate abbreviated certificate of release to service is used, the introductory section of the technical log should include an example of the full certification statement from point 1.

3. The certificate of release to service should relate to the task specified in the (S)TC holder's or operator's instructions or the aircraft maintenance programme which itself may cross-refer to maintenance data.

4. The date such maintenance was carried out should include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings etc., as appropriate.

5. When extensive maintenance has been carried out, it is acceptable for the certificate of release to service to summarise the maintenance as long as there is a unique cross-reference to the work package containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.

AMC1 145.50(d) Certification of maintenance

The purpose of the certificate is to release assemblies/items/components/parts (hereafter referred to as 'item(s)') after maintenance and to release maintenance work carried out on such items under the approval of the SCAA and to allow items removed from one aircraft/aircraft component to be fitted to another aircraft/aircraft component.

The certificate is to be used for export/import purposes, as well as for domestic purposes, and serves as an official certificate for items from the manufacturer/maintenance organisation to users.

It can only be issued by organisations approved by the SCAA within the scope of the approval.

The certificate may be used as a rotable tag by utilising the available space on the reverse side of the certificate for any additional information and dispatching the item with two copies of the certificate so that one copy may be eventually returned with the item to the maintenance organisation. The alternative solution is to use existing rotable tags and also supply a copy of the certificate.

A certificate should not be issued for any item when it is known that the item is unserviceable except in the case of an item undergoing a series of maintenance processes at several maintenance organisations approved under AAR-145 and the item needs a certificate for the previous maintenance process carried out for the next maintenance organisation approved under AAR-145 to accept the item for subsequent maintenance processes. In such a case, a clear statement of limitation should be endorsed in Block 12.

AMC2 145.50(d) Certification of maintenance

1. A component which has been maintained off the aircraft needs the issuance of a certificate of release to service for such maintenance and another certificate of release to service in regard to being installed properly on the aircraft when such action occurs.

   When an organisation maintains a component for use by the same organisation, an SCAA Form 1 may not be necessary depending upon the organisation's internal release procedures defined in the maintenance organisation exposition.

2. In the case of the issue of SCAA Form 1 for components in storage before AAR-145 and AAR-21 became effective and not released on an SCAA Form 1 or equivalent in accordance with point 145.42(a) or removed serviceable from a serviceable aircraft or an aircraft which has been withdrawn from service the following applies:

   2.1 An SCAA Form 1 may be issued for an aircraft component which has been:

   - Maintained before AAR-145 became effective or manufactured before AAR-21 became effective.
   - Used on an aircraft and removed in a serviceable condition. Examples include leased and loaned aircraft components.
   - Removed from aircraft which have been withdrawn from service, or from aircraft which have been involved in abnormal occurrences such as accidents, incidents, heavy landings or lightning strikes.
   - Maintained by an unapproved organisation.

   2.2 An appropriately rated maintenance organisation approved under AAR-145 may issue an SCAA Form 1 as detailed in this AMC subparagraph 2.5 to 2.9, as appropriate, in accordance with procedures detailed in the exposition as approved by the SCAA. The appropriately rated organisation is responsible for ensuring that all reasonable measures have been taken to ensure that only approved and serviceable aircraft components are issued an SCAA Form 1 under this paragraph.

   2.3 For the purposes of this AMC No 2 only, appropriately rated means an organisation with an approval class rating for the type of component or for the product in which it may be installed.

   2.4 An SCAA Form 1 issued in accordance with this paragraph 2 should be issued by signing in block 14b and stating 'Inspected/Tested' in block 11. In addition, block 12 should specify:

   2.4.1 When the last maintenance was carried out and by whom.

   2.4.2 If the component is unused, when the component was manufactured and by whom with a cross-reference to any original documentation which should be included with the Form.

2.4.3 A list of all airworthiness directives, repairs and modifications known to have been incorporated. If no airworthiness directives or repairs or modifications are known to be incorporated, then this should be so stated.

2.4.4 Detail of life used for life-limited parts and time-controlled components being any combination of fatigue, overhaul or storage life.

2.4.5 For any aircraft component having its own maintenance history record, reference to the particular maintenance history record as long as the record contains the details that would otherwise be required in block 12. The maintenance history record and acceptance test report or statement, if applicable, should be attached to the SCAA Form 1.

2.5 New/unused aircraft components

2.5.1 Any unused aircraft component in storage without an SCAA Form 1 up to the effective date(s) for AAR-21 that was manufactured by an organisation acceptable to the SCAA at that time may be issued with an SCAA Form 1 by an appropriately rated maintenance organisation approved under AAR-145. The SCAA Form 1 should be issued in accordance with the following subparagraphs which should be included in a procedure within the maintenance organisation manual.

Note 1: It should be understood that the release of a stored but unused aircraft component in accordance with this paragraph represents a maintenance release under AAR-145 and not a production release under AAR-21. It is not intended to bypass the production release procedure for parts and subassemblies intended for fitment on the manufacturers' own production line.

(a) An acceptance test report or statement should be available for all used and unused aircraft components that are subjected to acceptance testing after manufacturing or maintenance as appropriate.

(b) The aircraft component should be inspected for compliance with the manufacturer's instructions and limitations for storage and condition including any requirement for limited storage life, inhibitors, controlled climate and special storage containers. In addition or in the absence of specific storage instructions the aircraft component should be inspected for damage, corrosion and leakage to ensure good condition.

(c) The storage life used of any storage life-limited parts should be established.

2.5.2 If it is not possible to establish satisfactory compliance with all applicable conditions specified in subparagraph 2.5.1(a) to (c) inclusive, the aircraft component should be disassembled by an appropriately rated organisation and subjected to a check for incorporated airworthiness directives, repairs and modifications and inspected/tested in accordance with the maintenance data to establish satisfactory condition and, if relevant, all seals, lubricants and life-limited parts should be replaced. Upon satisfactory completion after reassembly, an SCAA Form 1 may be issued stating what was carried out and the reference of the maintenance data included.

2.6 Used aircraft components removed from a serviceable aircraft

2.6.1 Serviceable aircraft components removed from the Republic of Azerbaijan registered aircraft may be issued with an SCAA Form 1 by an appropriately rated organisation subject to compliance with this subparagraph.

(a) The organisation should ensure that the component was removed from the aircraft by an appropriately qualified person.

(b) The aircraft component may only be deemed serviceable if the last flight operation with the component fitted revealed no faults on that component/related system.

(c) The aircraft component should be inspected for satisfactory condition including in particular damage, corrosion or leakage and compliance with any additional maintenance data.

(d) The aircraft record should be researched for any unusual events that could affect the serviceability of the aircraft component such as involvement in accidents, incidents, heavy landings or lightning strikes. Under no circumstances may an SCAA Form 1 be issued in accordance with this paragraph 2.6 if it is suspected that the aircraft component has been subjected to extremes of stress, temperatures or immersion which could affect its operation.

(e) A maintenance history record should be available for all used serialised aircraft components.

(f) Compliance with known modifications and repairs should be established.

(g) The flight hours/cycles/landings as applicable of any life-limited parts and time-controlled components including time since overhaul should be established.

(h) Compliance with known applicable airworthiness directives should be established.

(i) Subject to satisfactory compliance with this subparagraph 2.6.1, an SCAA Form 1 may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.

2.6.2 Serviceable aircraft components removed from a non-Republic of Azerbaijan registered aircraft may only be issued with an SCAA Form 1 if the components are leased or loaned from the maintenance organisation approved under AAR-145 who retains control of the airworthiness status of the components. An SCAA Form 1 may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.

2.7 Used aircraft components removed from an aircraft withdrawn from service. Serviceable aircraft components removed from the Republic of Azerbaijan registered aircraft withdrawn from service may be issued with an SCAA Form 1 by a maintenance organisation approved under AAR-145 subject to compliance with this subparagraph.

(a) Aircraft withdrawn from service are sometimes dismantled for spares. This is considered to be a maintenance activity and should be accomplished under the control of an organisation approved under AAR-145, employing procedures approved by the SCAA.

(b) To be eligible for installation, components removed from such aircraft may be issued with an SCAA Form 1 by an appropriately rated organisation following a satisfactory assessment.

(c) As a minimum, the assessment will need to satisfy the standards set out in paragraphs 2.5 and 2.6 as appropriate. This should, where known, include the possible need for the alignment of scheduled maintenance that may be necessary to comply with the maintenance programme applicable to the aircraft on which the component is to be installed.

(d) Irrespective of whether the aircraft holds a certificate of airworthiness or not, the organisation responsible for certifying any removed component should ensure that the manner in which the components were removed and stored are compatible with the standards required by AAR-145.

(e) A structured plan should be formulated to control the aircraft disassembly process. The disassembly is to be carried out by an appropriately rated organisation under the supervision of certifying staff who will ensure that the aircraft components are removed and documented in a structured manner in accordance with the appropriate maintenance data and disassembly plan.

(f) All recorded aircraft defects should be reviewed and the possible effects these may have on both normal and standby functions of removed components are to be considered.

(g) Dedicated control documentation is to be used as detailed by the disassembly plan, to facilitate the recording of all maintenance actions and component removals performed during the disassembly process. Components found to be unserviceable are to be identified as such and quarantined pending a decision on the actions to be taken. Records of the maintenance accomplished to establish serviceability are to form part of the component maintenance history.

(h) Suitable AAR-145 facilities for the removal and storage of removed components are to be used which include suitable environmental conditions, lighting, access equipment, aircraft tooling and storage facilities for the work to be undertaken. While it may be acceptable for components to be removed, given local environmental conditions, without the benefit of an enclosed facility, subsequent disassembly (if required) and storage of the components should be in accordance with the manufacturer's recommendations.

2.8 Used aircraft components maintained by organisations not approved in accordance with AAR-145. For used components maintained by a maintenance organisation not approved under AAR-145, due care should be taken before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under AAR-145 should establish satisfactory conditions by:

(a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data;

(b) replacing all life-limited parts and time-controlled components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition;

(c) reassembling and testing as necessary the component;

(d) completing all certification requirements as specified in point 145.50.

2.9 Used aircraft components removed from an aircraft involved in an accident or incident. Such components should only be issued with an SCAA Form 1 when processed in accordance with paragraph 2.7 and a specific work order including all additional necessary tests and inspections deemed necessary by the accident or incident. Such a work order may require input from the TC holder or original manufacturer as appropriate. This work order should be referenced in block 12.

GM 145.50(d) EASA Form 1 Block 12 'Remarks'

Examples of data to be entered in this block as appropriate:

- Maintenance documentation used, including the revision status, for all work performed and not limited to the entry made in block 11.
- A statement such as 'in accordance with the CMM' is not acceptable.
- NDT methods with appropriate documentation used when relevant.
- Compliance with airworthiness directives or service bulletins.
- Repairs carried out.
- Modifications carried out.
- Replacement parts installed.
- Life-limited parts status.
- Shelf life limitations.
- Deviations from the customer work order.
- Release statements to satisfy a foreign Civil Aviation Authority maintenance requirement.
- Information needed to support shipment with shortages or re-assembly after delivery.
- References to aid traceability, such as batch numbers.

AMC 145.50(e) Certification of maintenance

1. Being unable to establish full compliance with point 145.50(a) means that the maintenance required by the aircraft operator could not be completed due either to running out of available aircraft maintenance downtime for the scheduled check or by virtue of the condition of the aircraft requiring additional maintenance downtime or because the maintenance data requires a flight to be performed as part of the maintenance, as described in point 4.
2. The aircraft operator is responsible for ensuring that all required maintenance has been carried out before flight and therefore point 145.50(e) requires such operator to be informed in the case where full compliance with point 145.50(a) cannot be achieved within the operator's limitations. If the operator agrees to the deferment of full compliance, then the

certificate of release to service may be issued subject to details of the deferment, including the operator's authority, being endorsed on the certificate.

Note: Whether or not the aircraft operator does have the authority to defer maintenance is an issue between the aircraft operator and the SCAA. In case of doubt concerning such a decision of the operator, the approved maintenance organisation should inform the SCAA on such doubt, before issuing the certificate of release to service. This will allow the SCAA to investigate the matter.

3. The procedure should draw attention to the fact that point 145.50(a) does not normally permit the issue of a certificate of release to service in the case of non-compliance and should state what action the mechanic, supervisor and certifying staff should take to bring the matter to the attention of the relevant department or person responsible for technical co-ordination with the aircraft operator so that the issue may be discussed and resolved with the aircraft operator. In addition, the appropriate person(s) as specified in point 145.30(b) should be kept informed in writing of such possible non-compliance situations and this should be included in the procedure.

4. Certain maintenance data issued by the design approval holder (e.g. aircraft maintenance manual (AMM)) requires that a maintenance task be performed in flight as a necessary condition to complete the maintenance ordered. Within the aircraft limitations, an appropriately authorised certifying staff should release the incomplete maintenance before the flight on behalf of the maintenance organisation. GM M.301(i) or GM1 ML.301(f) describe the relations with the aircraft operator, which retains the responsibility for the maintenance check flight (MCF). After performing the flight and any additional maintenance necessary to complete the maintenance ordered, a certificate of release to service should be issued in accordance with point 145.50(a).

AMC 145.50(f) Certification of maintenance

1. Suitable release certificate means a certificate which clearly states that the aircraft component is serviceable; that clearly specifies the organisation releasing said component together with details of the authority under whose approval the organisation works including the approval or authorisation reference.

2. Compliance with all other AAR-145 and operator requirements means making an appropriate entry in the aircraft technical log, checking for compliance with type design standards, modifications, repairs, airworthiness directives, life limitations and condition of the aircraft component plus information on where, when and why the aircraft was grounded.

145.55 Record-keeping

(a) Maintenance records

(1) The organisation shall record the details of the maintenance work that is carried out within the scope of its approval. As a minimum, 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 release to service, including, if any, subcontractor's release documents.

(2) The organisation shall provide a copy of each certificate of release to service to the operator or customer, together with copies of the detailed maintenance records that are associated with the work carried out and that are necessary to demonstrate compliance with point M.305 of AAR-M or ML.305 of AAR-ML, as applicable.

(3) The organisation shall retain a copy of all detailed maintenance records (including certificates of release to service) and of any associated maintenance data for 3 years from the date when the aircraft or component to which the work relates was issued with a certificate of release to service.

(4) If an organisation terminates its operation, it shall transfer all the retained maintenance records that cover the last 3 years to the last customer or owner of the respective aircraft or component, or shall store them in the manner specified by the SCAA.

(b) Airworthiness review records

(1) If an organisation has the privilege referred to in point 145.75(f), it shall retain a copy of each airworthiness review certificate that it has issued, together with all the supporting documents, and shall make those records available, upon request, to the owner of the aircraft.

(2) The organisation shall retain a copy of all the records referred to in point (1) for 3 years after the issue of the airworthiness review certificate.

(3) If an organisation terminates its operation, it shall transfer all the retained airworthiness review records that cover the last 3 years to the last owner or operator of the respective aircraft, or shall store them in the manner specified by the SCAA.

(c) Management system, contracting and subcontracting records

The organisation shall ensure that the following records are retained for a minimum period of 5 years:

(1) records of management system key processes referred to in point 145.200;

(2) contracts, both for contracting and subcontracting, referred to in point 145.205.

(d) Personnel records

(1) The organisation shall ensure that the following records are retained:

(i) records of the qualifications, training and experience of the personnel involved in maintenance, compliance monitoring and safety management;

(ii) records of the qualifications, training and experience of all airworthiness review staff.

(2) The records of all airworthiness review staff shall include details of any appropriate qualifications held, together with a summary of their relevant continuing airworthiness

experience and training, and a copy of the airworthiness review authorisation issued to that staff by the organisation.

(3) The records of all the certifying staff and support staff shall include the following:

(i) the details of any aircraft maintenance licence held under AAR-66 or equivalent;

(ii) the scope of the certification authorisations that were issued to that staff, where relevant;

(iii) the particulars of the staff that held limited or one-off certification authorisations referred to in point 145.30(j).

(4) Personnel records shall be kept for as long as a person works for the organisation, and shall be retained for at least 3 years after the person has left the organisation, or after an authorisation issued to that person has been withdrawn.

(5) The organisation shall give to the staff referred to in points (2) and (3), upon their request, access to their personnel records as detailed in those points. In addition, upon their request, the maintenance organisation shall furnish each of them with a copy of their personnel records on leaving the organisation.

(e) The organisation shall establish a record-keeping system that allows adequate storage and reliable traceability of all its activities.

(f) The format of the records shall be specified in the organisation's procedures.

(g) The records shall be stored in a manner that ensures that they are protected from damage, alteration and theft.

GM 145.55 Record-keeping

1. Properly executed and retained records provide owners, operators and maintenance personnel with information essential in controlling unscheduled and scheduled maintenance, and trouble-shooting to eliminate the need for re-inspection and rework to establish airworthiness.

   The prime objective is to have secure and easily retrievable records with comprehensive and legible contents. The aircraft record should contain basic details of all serialised aircraft components and all other significant aircraft components installed, to ensure traceability to such installed aircraft component documentation, associated maintenance data and data for modifications and repairs.

2. Some gas turbine engines are assembled from modules and a true total time in service for a total engine is not kept. When owners and operators wish to take advantage of the modular design, then total time in service and maintenance records for each module is to be maintained. The maintenance records as specified are to be kept with the module and should show compliance with any mandatory requirements pertaining to that module.

3. Reconstruction of lost or destroyed records can be done by reference to other records which reflect the time in service, research of records maintained by repair facilities and reference to records maintained by individual mechanics etc. When these things have been done and the record is still incomplete, the owner/operator may make a statement in the new record describing the loss and establishing the time in service based on the research and the best estimate of time in service. The reconstructed records should be submitted to the SCAA for acceptance.

Note: Additional maintenance may be required.

4. The maintenance record can be either a paper or computer system or any combination of both.

5. Paper systems should use robust material which can withstand normal handling and filing. The record should remain legible throughout the required retention period.

6. Computer systems may be used to control maintenance and/or record details of maintenance work carried out. Computer systems used for maintenance should have at least one backup system which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

AMC 145.55 Record-keeping

Associated maintenance data is specific information such as repair and modification data. This does not necessarily require the retention of all Aircraft Maintenance Manual, Component Maintenance Manual, IPC etc issued by the TC holder or STC holder. Maintenance records should refer to the revision status of the data used.

AMC 145.55(d) Record-keeping

1. The following minimum information as applicable should be kept on record in respect of each certifying staff and support staff:
   (a) Name
   (b) Date of Birth
   (c) Basic Training
   (d) Type Training
   (e) Recurrent Training
   (f) Experience
   (g) Qualifications relevant to the authorisation
   (h) Scope of the authorisation
   (i) Date of first issue of the authorisation
   (j) If appropriate - expiry date of the authorisation
   (k) Identification Number of the authorisation

2. The record may be kept in any format but should be controlled by the organisation's compliance monitoring department. This does not mean that the compliance monitoring department should run the record 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 SCAA is an authorised person when investigating the records system for initial and continued approval or when the SCAA has cause to doubt the competence of a particular person.

145.60 Occurrence reporting

(a) As part of its management system, the organisation shall establish and maintain an occurrence-reporting system, including mandatory and voluntary reporting. For organisations that have their principal place of business in the Republic of Azerbaijan, a single system may be established to meet the requirements of Azerbaijan Aviation Rules.

(b) The organisation shall report to the SCAA and to the design approval holder of the aircraft or component any safety-related event or condition of an aircraft or component identified by the organisation which endangers or, if not corrected or addressed, could endanger an aircraft, its occupants or any other person, and in particular any accident or serious incident.

(c) The organisation shall also report any such event or condition that affects an aircraft to the person or organisation that is responsible for the continuing airworthiness of that aircraft in accordance with point M.201 of AAR-M or point ML.201 of AAR-ML, as applicable. For events or conditions that affect aircraft components, the organisation shall report to the person or organisation that requested the maintenance.

(d) For all organisations:

(1) the initial mandatory reports shall:

(i) appropriately safeguard the confidentiality of the identity of the reporter and of the persons mentioned in the report;

(ii) be made as soon as practicable, but in any case within 72 hours after the organisation has become aware of the occurrence unless exceptional circumstances prevent this;

(iii) be made in a form and manner established by the SCAA;

(iv) contain all pertinent information about the condition known to the organisation;

(2) where relevant, a follow-up report that provides details of the actions the organisation intends to take to prevent similar occurrences in the future shall be made as soon as those actions have been identified; those follow-up reports shall:

(i) be sent to the entities referred to in points (b) and (c) to which the initial report was sent;

(ii) be made in a form and manner established by the SCAA.

AMC 145.60 Occurrence reporting

Further guidance on occurrence reporting contained in EASA AMC 20-8 General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances is acceptable to the SCAA.

GM 145.60 Occurrence reporting

The organisation responsible for the design is normally the TC holder of the aircraft, engine or propeller and/or if known the STC holder.

AMC 145.60(b) Occurrence reporting

1. The aim of occurrence reporting is to identify the factors contributing to incidents, and to make the system resistant to similar errors.
2. An occurrence reporting system should enable and encourage free and frank reporting of any (potentially) safety related occurrence. This will be facilitated by the establishment of a just culture. An organisation should ensure that personnel are not inappropriately punished for reporting or co-operating with occurrence investigations.
3. The internal reporting process should be closed-loop, ensuring that actions are taken internally to address safety hazards.
4. Feedback to reportees, both on an individual and more general basis, is important to ensure their continued support for the scheme.

GM 145.60(c) Occurrence reporting

Each report should contain at least the following information:

(i) Organisation name and approval reference.

(ii) Information necessary to identify the subject aircraft and / or component.

(iii) Date and time relative to any life or overhaul limitation in terms of flying hours/cycles/landings etc. as appropriate.

(iv) Details of the condition as required by point 145.60(b);

(v) Any other relevant information found during the evaluation or rectification of the condition.

145.65 Maintenance procedures

(a) The organisation shall establish procedures which ensure that human factors and good maintenance practices are taken into account during maintenance, including subcontracted activities, and which comply with the applicable requirements of these Rules, AAR-M and AAR-ML. Such procedures shall be agreed with the SCAA.

(b) The maintenance procedures established under this point shall:

(1) ensure that a clear maintenance work order or contract has been agreed between the organisation and the person or organisation that requests the maintenance, to clearly establish the maintenance to be carried out so that the aircraft and components may be released to service in accordance with point 145.50;

(2) cover all the aspects of carrying out the maintenance, including the provision and control of specialised services, and lay down the standards according to which the organisation intends to work.

AMC1 145.65 Maintenance procedures

1. Maintenance procedures should be held current such that they reflect best practice within the organisation. It is the responsibility of all organisation's employees to report any differences via their organisation's internal occurrence reporting mechanisms.
2. All procedures, and changes to those procedures, should be verified and validated before use where practicable.
3. All technical procedures should be designed and presented in accordance with good human factors principles.

GM 145.65 Maintenance procedures

Appendix XI to AMC M.708(c) or Appendix IV to AMC1 CAMO.315(c) provide guidance on the elements that need to be considered for the maintenance contract between the CAMO and the maintenance organisation. The AAR-145 organisation should take into account these elements to ensure that a clear contract or work order has been concluded before providing maintenance services.

AMC2 145.65 Maintenance procedures

Specialised services include any specialised activity, such as, but not limited to non-destructive testing requiring particular skills and/or qualification. Point 145.30(f) covers the qualification of personnel but, in addition, there is a need to establish maintenance procedures that cover the control of any specialised process.

145.70 Maintenance organisation exposition (MOE)

(a) The organisation shall establish and maintain a maintenance organisation exposition (MOE) that includes, directly or by reference, all of the following:

(1) a statement signed by the accountable manager confirming that the maintenance organisation will at all times work in accordance with these Rules, AAR-M and AAR-ML, as applicable, and with the approved MOE. If the accountable manager is not the chief executive officer of the organisation, then the chief executive officer shall countersign the statement;

(2) the organisation's safety policy and the related safety objectives referred to in point 145.200(a)(2);

(3) the title(s) and name(s) of the person(s) nominated under points 145.30(b), (c) and (ca);

(4) the duties and responsibilities of the persons nominated under points 145.30(b), (c) and (ca), including the matters on which they may deal directly with the SCAA on behalf of the organisation;

(5) an organisation chart showing the accountability and associated lines of responsibility, established in accordance with point 145.200(a)(1), between all the persons referred to in points 145.30(a), (b), (c) and (ca);

(6) a list of the certifying staff and, if applicable, support staff and airworthiness review staff with their scope of authorisation;

(7) a general description of the manpower resources and of the system that is in place to plan the availability of staff, as required by point 145.30(d);

(8) a general description of the facilities at each approved location;

(9) a specification of the scope of work of the organisation that is relevant to the terms of approval as required by point 145.20;

(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 SCAA, as required by point 145.85(c);

(11) the procedure for amending the MOE;

(12) the procedures specifying how the organisation ensures compliance with these Rules;

(13) a list of the commercial operators to which the organisation provides regular aircraft maintenance services, and the associated procedures;

(14) where applicable, a list of the subcontracted organisations referred to in point 145.75(b);

(15) a list of the approved locations including, where applicable, line maintenance locations referred to in point 145.75(d);

(16) a list of the contracted organisations;

(17) a list of the currently approved alternative means of compliance used by the organisation.

(b) The initial issue of the MOE shall be approved by the SCAA. It shall be amended as necessary so that it remains an up-to-date description of the organisation.

(c) Amendments to the MOE 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 145.85(a), shall be approved by the SCAA.

145.75 Privileges of the organisation

In accordance with the MOE, the organisation shall be entitled to carry out the following tasks:

(a) maintain any aircraft or component for which it is approved at the locations identified in the certificate and in the MOE;

(b) arrange for the maintenance of any aircraft or component for which it is approved at another subcontracted organisation that works under the management system of the organisation. This is limited to the work permitted under the procedures established in accordance with point 145.65 and it shall not include a base maintenance check of an aircraft, or a complete workshop maintenance check or overhaul of an engine or an engine module;

(c) maintain any aircraft or any component for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance, subject to the conditions specified in the exposition;

(d) maintain any aircraft and/or component for which it is approved at a location identified as a line maintenance location capable of supporting minor maintenance and only if the organisation exposition both permits such activity and lists such locations;

(e) issue certificates of release to service in respect of completion of maintenance in accordance with point 145.50;

(f) if specifically approved to do so for aircraft covered by AAR-ML and if it has its principal place of business in the Republic of Azerbaijan, the organisation may perform airworthiness reviews and issue the corresponding airworthiness review certificates under the conditions specified in point ML.903 of AAR-ML.

AMC 145.75(b) Privileges of the organisation

1. Working under the management system of an organisation appropriately approved under AAR-145 (subcontracting) refers to the case of one organisation, not itself appropriately approved to AAR-145 that carries out aircraft line maintenance or minor engine maintenance or maintenance of other aircraft components or a specialised service as a subcontractor for an organisation appropriately approved under AAR-145. To be appropriately approved to subcontract the organisation should have a procedure for the control of such subcontractors as described below. Any approved maintenance organisation that carries out maintenance for another approved maintenance organisation within its own approval scope is not considered to be subcontracting for the purpose of this paragraph.

   Note: For those organisations approved under AAR-145 that are also certificated by the FAA under FAR Part-145 it should be noted that FAR Part-145 is more restrictive in respect of maintenance activities that can be contracted or subcontracted to another maintenance organisation. It is therefore recommended that any listing of contracted or sub-contracted maintenance organisations should identify which meet the AAR-145 criteria and which meet the FAR Part-145 criteria.

2. Maintenance of engines or engine modules other than a complete workshop maintenance check or overhaul is intended to mean any maintenance that can be carried out without disassembly of the core engine or, in the case of modular engines, without disassembly of any core module.

3. FUNDAMENTALS OF SUBCONTRACTING UNDER AAR-145

3.1 The fundamental reasons for allowing an organisation approved under AAR-145 to subcontract certain maintenance tasks are:

(a) to permit the acceptance of specialised maintenance services, such as, but not limited to, plating, heat treatment, plasma spray, fabrication of specified parts for minor repairs / modifications, etc., without the need for direct approval by the SCAA in such cases;

(b) to permit the acceptance of aircraft maintenance up to but not including a base maintenance check as specified in point 145.75(b) by organisations not appropriately approved under AAR-145 when it is unrealistic to expect direct approval by the SCAA. The SCAA will determine when it is unrealistic but in general it is considered unrealistic if only one or two organisations intend to use the subcontracted organisation.

(c) to permit the acceptance of component maintenance;

(d) to permit the acceptance of engine maintenance up to but not including a workshop maintenance check or overhaul of an engine or engine module as specified in point 145.75(b) by organisations not appropriately approved under AAR-145 when it is unrealistic to expect direct approval by the SCAA. The determination of unrealistic is as per point (b).

3.2 When maintenance is carried out under the sub-contract control system it means that for the duration of such maintenance, the AAR-145 approval has been temporarily extended to include the subcontractor. It therefore follows that those parts of the subcontractor's facilities personnel and procedures involved with the maintenance organisation's products undergoing maintenance should meet AAR-145 requirements for the duration of that maintenance and it remains the organisation's responsibility to ensure such requirements are satisfied.

3.3 For the criteria specified in point 3.1 the organisation is not required to have complete facilities for maintenance that it needs to sub-contract but it should have its own expertise to determine that the sub-contractor meets the necessary standards. However, an organisation cannot be approved unless it has the in-house facilities, procedures and expertise to carry out the majority of maintenance for which it wishes to be approved in terms of the number of class ratings.

3.4 The organisation may find it necessary to include several specialist subcontractors to enable it to be approved to completely certify the release to service of a particular product. Examples could be specialist welding, electro-plating, painting etc. To authorise the use of such subcontractors, the SCAA will need to be satisfied that the organisation has the necessary expertise and procedures to control such subcontractors.

3.5 An organisation working outside the scope of its approval schedule is deemed to be not approved. Such an organisation may in this circumstance operate only under the sub-contract control of another organisation approved under AAR-145.

3.6 Authorisation to subcontract is indicated by the SCAA accepting the maintenance organisation exposition containing a specific procedure on the control of subcontractors.

4. PRINCIPAL AAR-145 PROCEDURES FOR THE CONTROL OF SUBCONTRACTORS NOT APPROVED UNDER AAR-145

4.1 A pre-audit procedure should be established whereby the maintenance organisations' subcontract control section, which may also be the compliance monitoring system independent audit section, should audit a prospective subcontractor to determine whether those services of the subcontractor that it wishes to use meets the intent of AAR-145.

4.2 The organisation approved under AAR-145 needs to assess to what extent it will use the subcontractor`s facilities. As a general rule the organisation should require its own paperwork, approved data and material/spare parts to be used, but it could permit the use of tools, equipment and personnel from the sub-contractor as long as such tools, equipment and personnel meet the requirement of AAR-145. In the case of subcontractors who provide specialised services it may for practical reasons be necessary to use their specialised services personnel, approved data and material subject to acceptance by the organisation approved under AAR-145.

4.3 Unless the subcontracted maintenance work can be fully inspected on receipt by the organisation approved under AAR-145 it will be necessary for such organisation to supervise the inspection and release from the subcontractor. Such activities should be fully described in the organisation procedure. The organisation will need to consider whether to use its own staff or authorise the subcontractor's staff.

4.4 The certificate of release to service may be issued either at the subcontractor or at the organisation facility by staff issued a certification authorisation in accordance with point 145.30 as appropriate, by the organisation approved under AAR-145. Such staff would normally come from the organisation approved under AAR-145 but may otherwise be a person from the subcontractor who meets the approved maintenance organisation certifying staff standard which itself is approved by the SCAA via the maintenance organisation exposition. The certificate of release to service and the SCAA Form 1 will always be issued under the maintenance organisation approval reference.

4.5 The sub-contract control procedure will need to record audits of the subcontractor, to have a corrective action follow up plan and to know when subcontractors are being used. The procedure should include a clear revocation process for subcontractors who do not meet the AAR-145 approved maintenance organisation's requirements.

4.6 The AAR-145 compliance monitoring staff will need to audit the sub-contract control section and sample audit sub-contractors unless this task is already carried out by the compliance monitoring staff as stated in point 4.1.

4.7 The contract between the AAR-145 approved maintenance organisation and the subcontractor should contain a provision for the SCAA staff to have right of access to the subcontractor.

145.85 Changes to the organisation

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

(1) changes to the certificate, including the terms of approval of the organisation;

(2) changes of the persons referred to in points 145.30(a), (b), (c) and (ca);

(3) changes to the reporting lines between the personnel nominated in accordance with points 145.30(b), (c) and (ca), 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 145.75(c).

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

The organisation shall provide the SCAA with any relevant documentation.

The change shall only be implemented upon the receipt of a formal approval from the SCAA.

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

(c) All changes not requiring prior approval shall be managed and notified to the SCAA as set out in a procedure which is approved by the SCAA.

145.90 Continued validity

(a) The organisation’s certificate shall remain valid until the expiry date, subject to compliance with all of the following conditions:

(1) the organisation remaining in compliance with Azerbaijan Aviation Rules, taking into account the provisions related to the handling of findings;

(2) the SCAA being granted access to the organisation as specified in point 145.140;

(3) the certificate not being surrendered by the organisation, or suspended or revoked by the SCAA.

(b) Upon surrender or revocation, the certificate shall be returned to the SCAA without delay.

145.95 Findings and observations

(a) After the receipt of a notification of findings from the SCAA, the organisation shall:

(1) identify the root cause(s) of, and contributing factor(s) to, the non-compliance;

(2) define a corrective action plan;

(3) demonstrate the implementation of corrective action to the satisfaction of the SCAA.

(b) The actions referred to in point (a) shall be performed within the period agreed with the SCAA.

(c) The observations received from the SCAA shall be given due consideration by the organisation. The organisation shall record the decisions taken in respect of those observations.

GM 145.95 Findings and observations

(a) A level 1 finding is issued by the SCAA when any significant non-compliance is detected with the applicable requirements of Azerbaijan Aviation Rules, 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 also includes:

(1) any failure to grant the SCAA access to the organisation's facilities referred to in point 145.140 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.

(b) A level 2 finding is issued by the SCAA when any non-compliance is detected with the applicable requirements of Azerbaijan Aviation Rules, 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.

(c) The SCAA 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 (a) or (b);

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

145.120 Means of compliance

(a) An organisation may use any alternative means of compliance to establish compliance with these Rules.

(b) If an organisation wishes to use an alternative means of compliance, it shall, prior to using it, provide the SCAA 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 these Rules is achieved.

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

145.140 Access

For the purpose of determining compliance with the relevant requirements of Azerbaijan Aviation Rules, 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 the SCAA.

145.155 Immediate reaction to a safety problem

The organisation shall implement:

(a) any safety measures mandated by the SCAA;

(b) any relevant mandatory safety information issued by the SCAA.

145.200 Management system

(a) The organisation shall establish, implement and maintain a management system that includes:

(1) clearly defined accountability and lines of responsibility throughout the organisation, including a direct safety accountability of the accountable manager;

(2) a description of the overall philosophies and principles of the organisation with regard to safety (“the safety policy”), and the related safety objectives;

(3) the identification of aviation safety hazards entailed by the activities of the organisation, their evaluation and the management of the associated risks, including taking actions to mitigate the risks and verify their effectiveness;

(4) maintaining personnel trained and competent to perform their tasks;

(5) documentation of all management system key processes, including a process for making personnel aware of their responsibilities and the procedure for amending that documentation;

(6) a function to monitor the compliance of the organisation with the relevant requirements. Compliance monitoring shall include a feedback system of findings to the accountable manager to ensure the effective implementation of corrective actions as necessary.

(b) The management system shall correspond to the size of the organisation and the nature and complexity of its activities, taking into account the hazards and the associated risks inherent in those activities.

(c) If the organisation holds one or more additional organisation certificates within the scope of Azerbaijan Aviation Rules, the management system may be integrated with that required under the additional certificate(s) held.

145.202 Internal safety reporting scheme

(a) As part of its management system, the organisation shall establish an internal safety reporting scheme to enable the collection and evaluation of such occurrences that are to be reported under point 145.60.

(b) The scheme shall also enable the collection and evaluation of those errors, near misses and hazards reported internally that do not fall under point (a).

(c) Through that scheme, the organisation shall:

(1) identify the causes of, and contributing factors to, the errors, near misses and hazards reported, and address them as part of its safety risk management process in accordance with point 145.200(a)(3);

(2) ensure an evaluation of all known, relevant information relating to errors, near misses, hazards and the inability to follow procedures, and a method to circulate the information as necessary.

(d) The organisation shall make arrangements to ensure the collection of safety issues related to subcontracted activities.

145.205 Contracting and subcontracting

(a) The organisation shall ensure that when contracting or subcontracting any part of its maintenance activities:

(1) the maintenance conforms to the applicable requirements;

(2) any aviation safety hazard associated with such contracting or subcontracting is considered as part of the organisation’s management system.

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

APPENDICES TO AAR-145

Appendix I — Authorised Release Certificate — SCAA Form 1

The provisions of Appendix II to AAR-M apply.

Appendix II – Class and Ratings System for the terms of approval of AAR-145 maintenance organisations

(a) Except as stated otherwise for the smallest organisations referred to in point (m), the table referred to in point (l) 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 these Rules. 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 (l), each maintenance organisation is required to indicate its scope of work in its MOE.

(c) Within the approval class(es) and rating(s) established by the SCAA, the scope of work specified in the MOE 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) A category A class rating means that the maintenance organisation may carry out maintenance on aircraft and components (including engines and/or auxiliary power units (APUs)), in accordance with the aircraft maintenance data or, if agreed by the SCAA, in accordance with the component maintenance data, only while such components are fitted to the aircraft. Nevertheless, such an A-rated maintenance organisation may temporarily remove a component for maintenance in order to improve access to that component, except when its removal generates the need for additional maintenance that the organisation is not approved to perform. Such removal of component for maintenance by A-rated maintenance organisation shall be subject to an appropriate control procedure in the MOE.

The limitation column must specify the scope of such maintenance, thereby indicating the extent of the approval.

(e) Category A class ratings are subdivided into "Base" or "Line" maintenance categories. Such an organisation may be approved for either "Base" or "Line" maintenance, or both. It should be noted that a "Line" facility located at a main base facility requires a "Line" maintenance approval.

(f) A category B class rating means that the maintenance organisation may carry out maintenance on uninstalled engines and/or APUs and engine and/or APU components, in accordance with the engine and/or APU maintenance data or, if agreed by the SCAA, in accordance with the component maintenance data, only while such components are fitted to the engine and/or the APU. Nevertheless, such a B-rated approved maintenance organisation may temporarily remove a component for maintenance in order to improve access to that component, except when its removal generates the need for additional maintenance that the organisation is not approved to perform.

The limitation column must specify the scope of such maintenance, thereby indicating the extent of the approval.

A maintenance organisation that is approved with a category B class rating may also carry out maintenance on an installed engine during aircraft base and line maintenance, provided that an appropriate control procedure in the MOE has been approved by the SCAA. The scope of work in the MOE shall reflect those activities if they are permitted by the SCAA.

(g) A category C class rating means that the maintenance organisation may carry out maintenance on uninstalled components (excluding complete engines and APUs) that are intended to be fitted on the aircraft or the engine/APU.

The limitation column must specify the scope of such maintenance, thereby indicating the extent of the approval.

A maintenance organisation that is approved with a category C class rating may also carry out maintenance on an installed component (other than a complete engine/APU) during aircraft base and line maintenance, or at an engine/APU maintenance facility provided that an appropriate control procedure in the MOE has been approved by the SCAA. The scope of work in the MOE shall reflect those activities if they are permitted by the SCAA.

(h) A category D class rating is a self-contained class rating that is not necessarily related to a specific aircraft, engine or other component. The D1 – Non-Destructive Testing (NDT) rating is only necessary for a maintenance organisation that carries out NDT as a particular task for another organisation. A maintenance organisation that is approved with a class rating in the A, B or C category may carry out NDT on products that it maintains without the need for a D1 class rating provided that the MOE contains appropriate NDT procedures.

(i) The limitation column is intended to give the SCAA 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 (l) specifies the types of limitations that are possible. It is acceptable to stress in the limitation column the maintenance task rather than the type or manufacturer of the aircraft or engine, if that is more appropriate to the organisation (an example could be avionics systems installations and the related maintenance). If that is mentioned in the limitation column, it indicates that the maintenance organisation is approved to carry out maintenance up to and including that particular type/task.

(j) When reference is made to the series, type and group in the limitation column of class A and B, it shall be understood as follows:

- "series" means a specific type series such as the Airbus 300, 310 or 319, or the Boeing 737-300 series, the RB211-524 series, the Cessna 150 or Cessna 172, the Beech 55 series, the continental O-200 series, etc.,
- "type" means a specific type or model such as the Airbus 310-240 type, the RB 211-524 B4 type, or the Cessna 172RG type.

  Any number of series or types may be quoted,
- "group" means, for example, Cessna single piston engine aircraft or Lycoming non-supercharged piston engines, etc.

(k) By way of derogation from point 145.85(a)(1), when a component capability 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 145.85(c) for changes not requiring prior approval.

(l) Table

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes above 5 700kg maximum take-off mass (MTOM)	[Shall state the aeroplane manufacturer or the group or series or type and/or the maintenance tasks] Example: Airbus A320 Series	[YES/NO] (*)	[YES/NO] (*)
	A2 Aeroplanes of 5 700kg MTOM and below	[Shall state the aeroplane manufacturer or the group or series or type and/or the maintenance tasks] Example: DHC-6 Twin Otter Series State whether the issuing of airworthiness review certificates is authorised (only possible for aircraft covered by AAR-ML	[YES/NO] (*)	[YES/NO] (*)
	A3 Helicopters	[Shall state the helicopter manufacturer or the group or series or type and/or the maintenance task(s)] Example: Robinson R44 State whether the issuing of airworthiness review certificates is authorised (only possible for aircraft covered by AAR-ML	[YES/NO] (*)	[YES/NO] (*)
	A4 Aircraft other than A1, A2 and A3 aircraft	[Shall state the aircraft category (sailplane, balloon, airship, etc.), the manufacturer or group or series or type and/or the maintenance task(s)] State whether the issuing of airworthiness review certificates is authorised (only possible for aircraft covered by AAR-ML	[YES/NO] (*)	[YES/NO] (*)

CLASS	RATING	LIMITATION
ENGINES	B1 Turbine	[Shall state the aeroplane manufacturer or the group or series or type and/or the maintenance tasks] Example: Airbus A320 Series
	B2 Piston	[Shall state the engine manufacturer or group or series or type and/or the maintenance task(s)]
	B3 APU	[Shall state the engine manufacturer or series or type and/or the maintenance task(s)]
COMPO-NENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	[Shall state the aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross-refer to a capability list in the exposition and/or the maintenance task(s)] Example: PT6A Fuel Control
	C2 Auto Flight	
	C3 Comms and Nav	
	C4 Doors — Hatches	
	C5 Electrical Power & Lights	
	C6 Equipment	
	C7 Engine – APU	
	C8 Flight Controls	
	C9 Fuel	
	C10 Helicopter – Rotors	
	C11 Helicopter – Trans	
	C12 Hydraulic Power	

CLASS	RATING	LIMITATION
COMPO-NENTS OTHER THAN COMPLETE ENGINES OR APUs	C13 Indicating – recording system	[Shall state the aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross-refer to a capability list in the exposition and/or the maintenance task(s)] Example: PT6A Fuel Control
	C14 Landing Gear	
	C15 Oxygen	
	C16 Propellers	
	C17 Pneumatic & Vacuum	
	C18 Protection ice/rain/fire	
	C19 Windows	
	C20 Structural	
	C21 Water ballast	
	C22 Propulsion Augmentation	
SPECIALISED SERVICES	D1 Non-Destructive Testing	[Shall state particular NDT method(s)]

(*) Delete as appropriate.

(m) A maintenance organisation which employs only one person to both plan and carry out all its maintenance activities can only hold limited terms of approval. The maximum permissible limits are as follows:

CLASS	RATING	LIMITATION
AIRCRAFT	A2	PISTON ENGINE AEROPLANE OF 5 700KG MTOM OR LESS
AIRCRAFT	A3	SINGLE PISTON ENGINE HELICOPTER OF 3 175KG MTOM OR LESS
AIRCRAFT	A4	NO LIMITATIONS
ENGINES	B2	LESS THAN 450 HP
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 to C22	AS PER CAPABILITY LIST
SPECIALISED SERVICES	D1 NDT	NDT METHOD(S) TO BE SPECIFIED

It should be noted that such an organisation may be further limited by the SCAA in the terms of approval depending on the capabilities of the particular organisation.

Appendix III — Maintenance Organisation Certificate — SCAA Form 3-145

AZƏRBAYCAN RESPUBLİKASI
REPUBLIC OF AZERBAIJAN

DÖVLƏT MÜLKİ AVİASİYA AGENTLİYİ
STATE CIVIL AVIATION AGENCY

TEXNİKİ XİDMƏT TƏŞKİLATININ TƏSDİQ SERTİFİKATI
MAINTENANCE ORGANISATION APPROVAL CERTIFICATE

Sertifikatın nömrəsi: AZ.145.[XXXX]
Certificate number

Bununla Azərbaycan Respublikasının Dövlət Mülki Aviasiya Agentliyi (DMAA) "Texniki xidmət təşkilatlarına dair Azərbaycan Aviasiya Qaydaları"na (AAR-145) uyğun olaraq təsdiq edir ki:
Pursuant to "Azerbaijan Aviation Rules for Maintenance Organisations" (AAR-145), the State Civil Aviation Agency of the Republic of Azerbaijan (SCAA) hereby certifies:

[TƏŞKİLATIN ADI və ÜNVANI]
[ORGANISATION NAME AND ADDRESS]

"Texniki xidmət təşkilatlarına dair Azərbaycan Aviasiya Qaydaları"na (AAR-145) uyğundur və aşağıdakı şərtlərə riayət olunması şərti ilə əlavə edilmiş təsdiq şərtlərində qeyd olunan məhsullara, hissələrə və cihazlara texniki xidmət göstərmək və yuxarıda ki sertifikat nömrəsini istifadə edərək müvafiq istismara buraxılış sertifikatlarını vermək habelə nəzərdə tutulduqda əlavə edilmiş təsdiq şərtlərində qeyd olunan hava gəmilərinə "Yüngül hava gəmilərinin uçuşa yararlılığın saxlanılmasına dair Azərbaycan Aviasiya Qaydaları"nın (AAR-ML) ML.903 bəndinə uyğun olaraq uçuşa yararlılığı yoxladıqdan sonra uçuşa yararlılığın yoxlanılması sertifikatını vermək səlahiyyəti vardır.
as a maintenance organisation in compliance with "Azerbaijan Aviation Rules for Maintenance Organisations" (AAR-145), approved to maintain products, parts and appliances listed in the attached terms of approval and issue related certificates of release to service using the above certificate number and, when stipulated, to issue airworthiness review certificates after an airworthiness review as specified in point ML.903 of "Azerbaijan Aviation Rules for Continuing Airworthiness of Light Aircraft" (AAR-ML) for those aircraft listed in the attached terms of approval, subject to the conditions specified below.

ŞƏRTLƏR:
CONDITIONS

1. Bu sertifikat təsdiq edilmiş texniki xidmət təşkilatının təlimatında qeyd olunan fəaliyyət sahəsi bölməsi ilə məhdudlaşır, və
1. This certificate is limited to that specified in the scope of work section of the approved maintenance organisation exposition, and

2. Bu sertifikat təsdiq edilmiş texniki xidmət təşkilatının təlimatında qeyd olunmuş prosedurlara riayət olunmasını tələb edir; və
2. This certificate requires compliance with the procedures specified in the approved maintenance organisation exposition, and

3. Bu sertifikat təsdiq edilmiş texniki xidmət təşkilatının Azərbaycan Aviasiya Qaydalarına uyğunluğu şərti ilə qüvvədədir.
3. This certificate is valid whilst the approved maintenance organisation remains in compliance with Azerbaijan Aviation Rules.

4. Yuxarıda qeyd olunan şərtlərə riayət edilməsi şərti ilə bu sertifikat daha əvvəlki tarixdə təslim edilmədikdə, əvəzlənmədikdə, qüvvəsi dayandırılmadıqda və ya ləğv edilmədikdə, qüvvədən düşmə tarixinə qədər etibarlıdır.
4. Subject to compliance with the foregoing conditions, this certificate shall remain valid until the expiry date unless the certificate has previously been surrendered, superseded, suspended or revoked.

İlkin verilmə tarixi:
Date of original issue

Qüvvədən düşmə tarixi:
Expiry date

Bu reviziyanın tarixi:
Date of this revision

Reviziya nömrəsi:
Revision number

İmzalanıb:
Signed

DMAA adından:
For the SCAA

TEXNIKI XIDMƏT TƏŞKİLATININ TƏSDİQ ŞƏRTLƏRİ
MAINTENANCE ORGANISATION TERMS OF APPROVAL

Sertifikatın nömrəsi: AZ.145.[XXXX]
Certificate number

SİNİF *CLASS*	REYTİNQ *RATING*	MƏHDUDİYYƏT *LIMITATION*	BAZA *BASE*	XƏTT *LINE*
HAVA GƏMİSİ (*) *AIRCRAFT*	(**)	(***)	[HƏ/YOX] (*) *[YES/NO]*	[HƏ/YOX] (*) *[YES/NO]*
	(**)	(***)	[HƏ/YOX] (*) *[YES/NO]*	[HƏ/YOX] (*) *[YES/NO]*
	(**)	(***)	[HƏ/YOX] (*) *[YES/NO]*	[HƏ/YOX] (*) *[YES/NO]*
	(**)	(***)	[HƏ/YOX] (*) *[YES/NO]*	[HƏ/YOX] (*) *[YES/NO]*
MÜHƏRRİKLƏR (*) *ENGINES*	(**)	(**)		
	(**)	(**)		
	(**)	(**)		
MÜHƏRRİKLƏRDƏN VƏ KGQ-dən başqa komponentlər (*) *COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs*	(**)	(**)		
	(**)	(**)		
	(**)	(**)		
	(**)	(**)		
	(**)	(**)		
	(**)	(**)		
	(**)	(**)		
	(**)	(**)		
XÜSUSİ XİDMƏTLƏR *SPECIALISED SERVICES*	(**)	(**)		
	(**)	(**)		
	(**)	(**)		

Bu təsdiq şərtləri təsdiq edilmiş texniki xidmət təşkilatının təlimatının fəaliyyət sahəsi bölməsində qeyd olunan məhsullarla, hissələrlə, cihazlarla və işlərlə məhdudlaşır.
These terms of approval are limited to those products, parts and appliances and to the activities specified in the scope of work section of the approved maintenance organisation exposition.

Texniki xidmət təşkilatının təlimatına istinad:
Maintenance Organisation Exposition reference

İlkin reviziyanın tarixi:
Date of original issue

Sonuncu təsdiq edilmiş reviziyanın tarixi:
Date of last revision approved

Reviziya nömrəsi:
Revision number

İmzalanıb:
Signed

DMAA adından:
For the SCAA

DMAA Forma 3-145 *SCAA Form 3-145* | **Reviziya 1** *Revision 1* | **25 Aprel 2022** *25 April 2022* | **Səhifə 2/2** *Page 2/2*

The following fields on page 2 ‘Maintenance Organisation Approval Schedule’ of the maintenance organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the maintenance organisation exposition
- Date of last revision approved: It refers to the date of the last revision of the maintenance organisation exposition affecting the content of the certificate. Changes to the maintenance organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.
- Revision No: It refers to the revision No of the last revision of the maintenance organisation exposition affecting the content of the certificate. Changes to the maintenance organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.

Appendix IV — Conditions for the use of staff not qualified in accordance with AAR-66 referred to in points 145.30(j)(1) and (2)

1. Certifying staff in compliance with all the following conditions are deemed to meet the intent of point 145.30(j)(1) and (2):

   (a) The person shall hold a licence or a certifying staff authorisation issued under national regulations in full compliance with ICAO Annex 1.

   (b) The scope of work of the person shall not exceed the scope of work defined by the national licence or the certifying staff authorisation, whatever is the most restrictive.

   (c) The person shall demonstrate he/she received the training on human factors and aviation legislation referred to in modules 9 and 10 of Appendix I to AAR-66.

   (d) The person shall demonstrate 5 years maintenance experience for line maintenance certifying staff and 8 years for base maintenance certifying staff. However, those persons whose authorised tasks do not exceed those of an AAR-66 category A certifying staff, need to demonstrate 3 years maintenance experience only.

   (e) Line maintenance certifying staff and base maintenance support staff shall demonstrate he/she received type training and passed examination at the category B1, B2 or B3 level, as applicable, referred to in Appendix III to AAR-66 for each aircraft type in the scope of work referred to in point (b). Those persons whose scope of work does not exceed those of a category A certifying staff may however receive task training in lieu of a complete type training.

   (f) Base maintenance certifying staff shall demonstrate he/she received type training and passed examination at the category C level referred to in Appendix III to AAR-66 for each aircraft type in the scope of work referred to in point (b), except that for the first aircraft type, training and examination shall be at the category B1, B2 or B3 level of Appendix III.

2. Protected rights

(a) The personnel having privileges before the entry into force of the relevant requirements of AAR-66 may continue to exercise them without the need to comply with points 1(c) to 1(f).

(b) However after that date any certifying staff willing to extend the scope of their authorisation to include additional privileges shall comply with point 1.

(c) Notwithstanding point 2(b) above, in the case of additional type training, compliance with points 1(c) and 1(d) is not required.

APPENDICES TO AMC TO AAR-145

Appendix I – Reserved

Appendix II – Reserved

Appendix III to AMC 145.15 – SCAA Form 2

The provisions of Appendix I to AMC1 CAMO.115 apply.

Appendix IV to AMC 145.30(e) – Fuel tank safety training

This appendix includes general instructions for providing training on fuel tank safety issues.

A. Effectivity:

- Large aeroplanes as defined in EASA CS-25 and certified after 1 January 1958 with a maximum type certified passenger capacity of 30 or more or a maximum certified payload capacity of 7500 lbs (3402 kg) cargo or more, and
- Large aeroplanes as defined in EASA CS-25 which contains CS-25 amendment 1 or later in their certification basis.

B. Affected organisations:

- AAR-145 approved maintenance organisations involved in the maintenance of aeroplanes specified in paragraph A) and fuel system components installed on such aeroplanes when the maintenance data are affected by CDCCL.

C. Persons from affected organisations who should receive training:

Phase 1 only:

- The group of persons representing the maintenance management structure of the organisation, the compliance monitoring manager and the staff required to compliance monitor the organisation.

Phase 1 + Phase 2 + Continuation training:

- Personnel of the AAR-145 approved maintenance organization required to plan, perform, supervise, inspect and certify the maintenance of aircraft and fuel system components specified in paragraph A).

D. General requirements of the training courses

Phase 1 – Awareness:

The training should be carried out before the person starts to work without supervision but not later than 6 months after joining the organisation.

Type: Should be an awareness course with the principal elements of the subject. It may take the form of a training bulletin, or other self study or informative session. Signature of the reader is required to ensure that the person has passed the training.

Level: It should be a course at the level of familiarisation with the principal elements of the subject.

Objectives: The trainee should, after the completion of the training:

1. Be familiar with the basic elements of the fuel tank safety issues.
2. Be able to give a simple description of the historical background and the elements requiring a safety consideration, using common words and showing examples of non conformities.
3. Be able to use typical terms.

Content: The course should include:

- a short background showing examples of FTS accidents or incidents,

- the description of concept of fuel tank safety and CDCCL,
- some examples of manufacturers documents showing CDCCL items,
- typical examples of FTS defects,
- some examples of TC holders repair data
- some examples of maintenance instructions for inspection.

Phase 2 - Detailed training

A flexible period may be allowed by the SCAA to allow organisations to set the necessary courses and impart the training to the personnel, taking into account the organisation's training schemes/means/practices. This flexible period should not extend beyond 31 December 2010.

Staff should have received Phase 2 training by 31 December 2010 or within 12 months of joining the organisation, whichever comes later.

Type: Should be a more in-depth internal or external course. It should not take the form of a training bulletin, or other self study. An examination should be required at the end, which should be in the form of a multi choice question, and the pass mark of the examination should be 75%.

Level: It should be a detailed course on the theoretical and practical elements of the subject.

The training may be made either:

- in appropriate facilities containing examples of components, systems and parts affected by Fuel Tank Safety (FTS) issues. The use of films, pictures and practical examples on FTS is recommended; or
- by attending a distance course (e-learning or computer based training) including a film when such film meets the intent of the objectives and content here below. An e-learning or computer based training should meet the following criteria:
  - A continuous evaluation process should ensure the effectiveness of the training and its relevance;
  - Some questions at intermediate steps of the training should be proposed to ensure that the trainee is authorized to move to the next step;
  - The content and results of examinations should be recorded;
  - Access to an instructor in person or at distance should be possible in case support is needed.

A duration of 8 hours for phase 2 is an acceptable compliance.

When the course is provided in a classroom, the instructor should be very familiar with the data in Objectives and Guidelines. To be familiar, an instructor should have attended himself a similar course in a classroom and made additionally some lecture of related subjects.

Objectives:

The attendant should, after the completion of the training:

- have knowledge of the history of events related to fuel tank safety issues and the theoretical and practical elements of the subject, have an overview of the FAA regulations known as SFAR (Special FAR) 88 of the FAA and of JAA Temporary Guidance Leaflet TGL 47, be able to give a detailed description of the concept of fuel tank system ALI (including Critical Design Configuration Control Limitations CDCCL, and using theoretical fundamentals and specific examples;
- have the capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner;
- have knowledge on how the above items affect the aircraft;
- be able to identify the components or parts or the aircraft subject to FTS from the manufacturer's documentation,
- be able to plan the action or apply a Service Bulletin and an Airworthiness Directive.

Content: Following the guidelines described in paragraph E).

Continuation training:

The organisation should ensure that the continuation training is required in each two years period. The syllabus of the training programme referred to in 3.4 of the Maintenance Organisation Exposition (MOE) should include the additional syllabus for this continuation training.

The continuation training may be combined with the phase 2 training in a classroom or at distance.

The continuing training should be updated when new instruction are issued which are related to the material, tools, documentation and manufacturer's or the SCAA directives.

E. Guidelines for preparing the content of Phase 2 courses.

The following guidelines should be taken into consideration when the phase 2 training programme are being established:

(a) understanding of the background and the concept of fuel tank safety,

(b) how the mechanics can recognise, interpret and handle the improvements in the instruction for continuing airworthiness that have been made or are being made regarding the fuel tank system maintenance,

(c) awareness of any hazards especially when working on the fuel system, and when the Flammability Reduction System using nitrogen is installed.

Paragraphs a), b) and c) above should be introduced in the training programme addressing the following issues:

(i) The theoretical background behind the risk of fuel tank safety: the explosions of mixtures of fuel and air, the behaviour of those mixtures in an aviation environment, the effects of temperature and pressure, energy needed for ignition etc, the 'fire triangle', - Explain 2 concepts to prevent explosions:

(1) ignition source prevention and

(2) flammability reduction,

(ii) The major accidents related to fuel tank systems, the accident investigations and their conclusions,

(iii) SFAR 88 of the FAA and JAA Interim Policy INT POL 25/12: ignition prevention program initiatives and goals, to identify unsafe conditions and to correct them, to systematically improve fuel tank maintenance),

(iv) Explain the briefly concepts that are being used: the results of SFAR 88 of the FAA and JAA INT/POL 25/12: modifications, airworthiness limitations items and CDCCL,

(v) Where relevant information can be found and how to use and interpret this information in the applicable maintenance data as defined in point 145.45(b),

(vi) Fuel Tank Safety during maintenance: fuel tank entry and exit procedures, clean working environment, what is meant by configuration control, wire separation, bonding of components etc,

(vii) Flammability reduction systems when installed: reason for their presence, their effects, the hazards of an FRS using nitrogen for maintenance, safety precautions in maintenance/working with an FRS,

(viii) Recording maintenance actions, recording measures and results of inspections.

The training should include a representative number of examples of defects and the associated repairs as required by the TC/STC holders' maintenance data.

F. Approval of training

For AAR-145 approved organisations, the approval of the initial and continuation training programme and the content of the examination can be achieved by the change to the MOE. The necessary changes to the MOE to meet the content of this decision should be made and implemented at the time requested by the SCAA.

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