

## **Annex II**

# **Acceptable Means of Compliance to Part-145**

### **SECTION A TECHNICAL REQUIREMENTS**

#### **AMC 145.A.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 (AD's, SB's) the Quality Manager may accept base maintenance tasks to be performed by a line maintenance organisation provided all requirements are fulfilled as defined by the competent authority.

(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 para. 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. For an organisation to be approved in accordance with 145.A.10 as an organisation located within the Member States means that the management as specified in 145.A.30 (a) and (b) should be located in the Member States. When the management are located in several Member States, then the approval should be granted by the competent authority in whose State the accountable manager is located.

3. Where the organisation uses facilities both inside and outside the Member State 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 competent authority being satisfied that they form an integral part of the approved maintenance organisation.

#### **AMC 145.A.15 Application**

In a form and in a manner established by the competent authority means that the application should be made on an EASA Form 2.

#### **AMC 145.A.20 Terms of approval**

The following table identifies the ATA specification 100 chapter for the category C component rating.

1)

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	24 - 33
	C6 Equipment	25 - 38 - 45
	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 – Airframe	28
	C10 Helicopters – Rotors	62 - 64 - 66 - 67
	C11 Helicopter - Trans	63 - 65
	C12 Hydraulic	29
	C13 Instruments	31
	C14 Landing Gear	32
	C15 Oxygen	35
	C16 Propellers	61
	C17 Pneumatic	36 - 37
	C18 Protection ice/rain/fire	26 - 30
	C19 Windows	56
	C20 Structural	53 - 54 - 57.10 - 57.20 - 57.30

#### **AMC 145.A.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.A.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 assigned tasks.

#### **AMC 145.A.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. Manufacturers 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.

#### **AMC 145.A.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 competent authority 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.A.30(b) Personnel requirements**

1. Dependent upon the size of the organisation, the Part-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 and a quality manager, all of whom should report to the accountable manager except in small Part-145 organisation where any one manager may also be the accountable manager, as determined by the competent authority, 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 145.A.65(b). The base maintenance manager is also responsible for any corrective action resulting from the quality compliance monitoring of 145.A.65(c).

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 145.A.65(b) and also responsible for any corrective action resulting from the quality compliance monitoring of 145.A.65(c).

5. The workshop manager is responsible for ensuring that all work on aircraft components is carried out to the standards specified in 145.A.65(b) and also responsible for any corrective action resulting from the quality compliance monitoring of 145.A.65(c).

6. The quality manager's responsibility is specified in 145.A.30(c).

7. Notwithstanding the example sub-paragraphs 2 - 6 titles, the organisation may adopt any title for the foregoing managerial positions but should identify to the competent authority the titles and persons chosen to carry out these functions.

8. Where an organisation chooses to appoint managers for all or any combination of the identified Part-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 quality 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 quality compliance monitoring staff specified in 145.A.65(c)(1) remain independent.

#### **AMC 145.A.30(c) Personnel requirements**

Monitoring the quality system includes requesting remedial action as necessary by the accountable manager and the nominated persons referred to in 145.A.30(b).

#### **AMC 145.A.30 (d) Personnel requirements**

1. Has sufficient staff means that the organisation employs or contracts such staff 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. Contract staff, being part time or full time should be made aware that when working for the organisation they are subjected to compliance with the organisation's procedures specified in the maintenance organisation exposition relevant to their duties. For the purpose of this sub-paragraph, employed means the person is directly employed as an individual by the maintenance organisation approved under Part-145 whereas contracted means the person is employed by another organisation and contracted by that organisation to the maintenance organisation approved under Part-145.

2. The maintenance man-hour plan should take into account any maintenance carried out on aircraft / aircraft components from outside the Member State and should also take into account all work carried out outside the scope of the Part-145 approval.

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.A.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 145.A.25(a) (2).

6. The quality monitoring compliance function man-hours should be sufficient to meet the requirement of 145.A.65(c) which means taking into account AMC 145.A.65(c). Where quality monitoring staff perform other functions, the time allocated to such functions needs to be taken into account in determining quality monitoring 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 quality 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 145.A.30(d).

#### **AMC 145.A.30(e) Personnel requirements**

1. The referenced procedure requires amongst others that planners, mechanics, specialised services staff, supervisors and certifying staff are assessed for competence by 'on the job' evaluation and/or by examination relevant to their particular job role within the organisation before unsupervised work is permitted. A record of the qualification and competence assessment should be kept.

2. Adequate initial and recurrent training should be provided and recorded to ensure continued competence.

3. To assist in the assessment of competence, job descriptions are recommended for each job role in the organisation. Basically, the assessment should establish that:

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

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

c. Specialised services staff are able to carry out specialised maintenance tasks to the standard specified in the maintenance data and will both inform and await instructions from their supervisor in any case where it is not possible to complete the specialised maintenance in accordance with the maintenance data.

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

e. 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.

4. In the case of planners, specialised services staff, supervisors and certifying staff, a knowledge of organisation procedures relevant to their particular role in the organisation is important. The aforementioned list is not exclusive and may include other categories of personnel.

5. Quality audit staff are able to monitor compliance with Part-145 identifying non compliance in an effective and timely manner in order that the organisation may remain in compliance Part-145.

6. In respect to the understanding of the application of human factors and human performance issues, maintenance, management, and quality audit personnel should be assessed for the need to receive Initial human factors training, but in any case all maintenance, management, and quality audit personnel should receive human factors continuation training. This should concern to a minimum:

-Post-holders, managers, supervisors;

-Certifying staff, technicians, and mechanics;

-Technical support personnel such as, planners, engineers, technical record staff;

-Quality control/assurance staff;

-Specialised services staff;

-Human factors staff/ human factors trainers;

-Store department staff, purchasing department staff;

-Ground equipment operators;

-Contract staff in the above categories.

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

- small organisations not working in shifts may cover in less depth subjects related to teamwork and communication,

- planners may cover in more depth the scheduling and planning objective of the syllabus and in less depth the objective of developing skills for shift working.

Depending on the result of the evaluation as specified in paragraph 5, initial training should be provided to personnel within 6 months of joining the maintenance organisation, but temporary staff may need be trained shortly after joining the organisation to cope with the duration of employment.

Personnel being recruited from another maintenance organisation approved under Part-145 and temporary staff should be assessed for the need to receive any additional Human factors training to meet the new maintenance organisation's approved under Part-145 human factors training standard.

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

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

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

#### **AMC 145.A.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 145.A.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 4179:2000 (EN 4179) dependant 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 by the type certificate holder/manufacturer in the form of continued airworthiness data, such as in non-destructive test manuals or service bulletins, unless the manual or service bulletin 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 Member State should be used, as defined by the competent authority.
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 such time as an agreed standard is established such methods should be carried out in accordance with the particular equipment manufacturers recommendations including any training and examination process to ensure competence of the personnel with the process.
7. Any maintenance organisation approved under Part-145 that carries out NDT should establish NDT specialist qualification procedures detailed in the exposition and accepted by the competent authority.
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 competent authority to ensure that personnel who carry out and interpret such inspections are properly trained and assessed for their competence with the process. Non-destructive inspections, not being considered as NDT by Part-145 are not listed in Appendix 2 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 Part-145 should qualify for such non-destructive test in accordance with EN 4179.

### **AMC 145.A.30 (g) Personnel requirements**

1. For the purposes of category A minor scheduled line maintenance means any minor scheduled inspection/check up to and including a weekly check specified in the operators approved aircraft maintenance programme. For aircraft maintenance programmes that do not specify a weekly check, the competent authority 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 the category A for the purpose of the category A issuing an aircraft certificate of release to service as specified in 145.A.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 inflight entertainment system components but excluding 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 competent authority as a simple task.
- q. Replacement of any other component as agreed by the Agency for a particular aircraft type only where it is agreed that the task is simple.

NOTE: This list will be periodically updated in the light of ongoing experience and technological changes.

### **AMC 145.A.30 (h)(1) Personnel requirements**

The category B1 and B2 support staff need not hold a a certifying authorisation in accordance with 145.A.35 (b) but the organisation may use such appropriately authorised certifying staff to satisfy the requirement.

### **AMC 145.A.30(j)(4) Personnel requirements**



1. For the issue of a limited certification authorisation the commander or flight engineer should hold either a valid air transport pilots license (ATPL), commercial pilots license (CPL) or flight engineer (F/EL) licence in accordance with JAR-FCL, or a national equivalent acceptable to the competent authority on the aircraft type. In addition the limited certification authorisation is subject to the maintenance organisation exposition containing procedures to address the personnel requirements of 145.A.30 (e) and associated AMC and guidance material.

Such procedures 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 Part-145.

The above procedures should be specified in the maintenance organisation exposition and be accepted by the competent authority.

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. Any check / replacement involving simple techniques consistent with this AMC and as agreed by the competent authority.

2. (ii) Holders of a valid JAR FCL Flight engineers licence, or a national equivalent acceptable to the competent authority, on the aircraft type may only exercise this limited certification authorisation privilege when performing the duties of a flight engineer.

In addition to paragraph 2(i)(a) to (d) 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 internal and external lights, filaments and flash tubes.
- 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 inflight entertainment system components but excluding 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 competent authority as a simple task.

- k. Re-setting of tripped circuit breakers under the guidance of maintenance control.
- l. Any other simple task as agreed by the competent authority for a particular aircraft type only where it is agreed that the task is simple.
3. The authorisation should have a finite life of twelve months subject to satisfactory re-current training on the applicable aircraft type.

#### **AMC 145.A.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 quality 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 quality 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.A.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 details of the defect to the operator’s supporting maintenance organisation with full details of the defect. If necessary the supporting maintenance organisation will then request the use of a one off authorisation from the quality department.
2. When issuing a one off authorisation, the quality department of the organisation should verify that:
  - a) Full technical details relating to the work required to be carried out have been established and passed to the certifying staff.
  - b) The organisation has an approved procedure in place for co-ordinating 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 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 Part-145 maintenance facility.

#### **AMC 145.A.30(j)(5)(ii) Personnel requirements**

This paragraph addresses staff not employed by the maintenance organisation who meet the requirements of 145.A.30(j) (5). In addition to the items listed in AMC 145.A.30(j) (5) (i), paragraph 1, 2(a), (b) and (c) and 3 the quality department of the organisation may issue such one off authorisation providing full qualification details relating to the proposed certifying personnel are verified by the quality department and made available at the location.

#### **AMC 145.A.35(a) Certifying staff and category B1 and B2 support staff**

1. Adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures means that the person has received training and has relevant maintenance experience on the product type and associated organisation procedures such that the person understands how the product functions, what are the more common defects with associated consequences.

2. The organisation should hold copies of all documents that attest to qualification, and to recent experience.

#### **AMC 145.A.35(b) Certifying staff and category B1 and B2 support staff**

The organisation issues the certification authorisation when satisfied that compliance has been established with the appropriate paragraphs of Part-145 and Part-66. In granting the certification authorisation the maintenance organisation approved under Part-145 needs to be satisfied that the person holds a valid Part-66 aircraft maintenance licence and may need to confirm such fact with the competent authority of the Member State that issued the licence.

#### **AMC 145.A.35(d) Certifying staff and category B1 and B2 support staff**

1. Continuation 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 quality 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 quality department to initiate action.

2. Continuation training should cover changes in relevant requirements such as Part-145, 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 continuation 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 quality audit of such procedures.

3. Continuation training should be of sufficient duration in each 2 year period to meet the intent of 145.A.35(d) and may be split into a number of separate elements.

145.A.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 quality. Therefore sufficient duration should be related to relevant quality 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 quality audit findings, continuation training could be limited to days rather than weeks, whereas a similar organisation with a number of relevant quality 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 continuation training should be related to relevant quality 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 a Part-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 Part 147 when such details may be specified under the approval and cross referenced in the maintenance organisation exposition.

#### **AMC 145.A.35(e) Certifying staff and category B1 and B2 support staff**

The programme for continuation 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 as required by 145.A.35 (j).

#### **AMC 145.A.35(f) Certifying staff and category B1 and B2 support staff**

1. As stated in 145.A.35 (f), with one exception, all prospective certifying staff are required to be assessed for competence, qualification and capability related to intended certifying duties. There are a number of ways in which such assessment may be carried out but the following points need to be considered to establish an assessment procedure that fits the particular organisation.

2. Competence and capability can be assessed by working the person under the supervision of either another certifying person or a quality auditor for sufficient time to arrive at a conclusion. Sufficient time could be as little as a few weeks if the person

is fully exposed to relevant work. It is not required to assess against the complete spectrum of intended duties. When the person has been recruited from another approved maintenance organisation and was a certifying person in that organisation then the organisation should accept a written confirmation from the person responsible for running the quality system about the person.

3. Qualification assessment means collecting copies of all documents that attest to qualification, such as the licence and/or any authorisation held. This should be followed by a confirmation check with the organisation(s) that issued such document(s) and finally a comparison check for differences between the product type ratings on the qualification documents and the relevant product types maintained by the organisation. This latter point may reveal a need for product type differences training.

#### **AMC 145.A.35 (j) Certifying staff and category B1 and B2 support staff**

1. The following minimum information as applicable should be kept on record in respect of each certifying person or category B1 or B2 support person:

- a. Name
- b. Date of Birth
- c. Basic Training
- d. Type Training
- e. Continuation Training
- f. Experience
- g. Qualifications relevant to the approval
- 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 quality department. This does not mean that the quality 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 competent authority is an authorised person when investigating the records system for initial and continued approval or when the competent authority has cause to doubt the competence of a particular person.

#### **AMC 145.A.40(a) Equipment, tools and material**

Once the applicant for approval has determined the intended scope of approval for consideration by the competent authority, 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.A.40(b) Equipment, tools and material**

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.

### **AMC 145.A.42(a) Acceptance of components**

An equivalent document to an EASA Form 1 may be:

- (a) a release document issued by an organisation under the terms of a bilateral agreement signed by the European Community;
- (b) a release document issued by an organisation approved under the terms of a JAA maintenance bilateral agreement until superseded by the corresponding agreement signed by the European Community;
- (c) a JAA Form One issued prior to 28 September 2004 by a JAR 145 organisation approved by a JAA Full Member State;
- (d) in the case of new aircraft components that were released from manufacturing prior to the Part-21 compliance date the component should be accompanied by a JAA Form One issued by a JAR 21 organisation approved by a JAA Full Member Authority and within the JAA mutual recognition system;
- (e) a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations;

### **AMC 145.A.42(b) Acceptance of components**

The EASA Form 1 identifies the eligibility and status of an aircraft component. Block 13 "Remarks" on the EASA Form One in some cases contains vital airworthiness related information which may need appropriate and necessary actions.

The receiving organisation should be satisfied that the component in question is in satisfactory condition and has been appropriately released to service. In addition, the organisation should ensure that the component meets the approved data/standard, such as the required design and modification standard. This may be accomplished by reference to the manufacturer's parts catalogue or other approved data (i.e. Service Bulletin). Care should also be exercised in ensuring compliance with applicable airworthiness directives and the status of any life limited parts fitted to the aircraft component.

## **AMC 145.A.42(c) Acceptance of components**

1. The agreement by the competent authority for the fabrication of parts by the approved maintenance organisation should be formalised through the approval of a detailed procedure in the Maintenance Organisation Exposition. This AMC contains principles and conditions to be taken into account for the preparation of an acceptable procedure.
2. Fabrication, inspection assembly and test should be clearly within the technical and procedural capability of the organisation;
3. All necessary data to fabricate the part should be approved either by the competent authority or the type certificate (TC) holder or Part-21 design organisation approval holder, or supplemental type certificate (STC) holder;
4. Items fabricated by an organisation approved under Part-145 may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components undergoing work within its own facility. The permission to fabricate does not constitute approval for manufacture, or to supply externally and the parts do not qualify for certification on EASA Form One. 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.
5. Fabrication of parts, modification kits etc for onward supply and/or sale may not be conducted by an organisation approved under Part-145.
6. The data specified in paragraph 3 may include repair procedures involving the fabrication of parts. Where the data on such parts is sufficient to facilitate fabrication, the parts may be fabricated by an organisation approved under Part-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 or/and incoming inspection requirement and that the approved organisation has the necessary capability. 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 can not fabricate the part unless the TC/STC-holder gives an approved alternative.
7. Examples of fabrication under the scope of an Part-145 approval can include but are not limited to the following:
  - a) Fabrication of bushes, sleeves and shims.
  - b) Fabrication of secondary structural elements and skin panels.
  - c) Fabrication of control cables.
  - d) Fabrication of flexible and rigid pipes.
  - e) Fabrication of electrical cable looms and assemblies.
  - f) Formed or machined sheet metal panels for repairs.

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

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 processes and which is acceptable to the competent authority.

8. Where a TC-holder or an approved production organisation is prepared to make available complete data which is not referred to in 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 competent authority in accordance with a procedure specified in the exposition.

#### 9. Inspection and Identification.

Any locally fabricated part should be subjected to an inspection stage 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 the final inspections. All parts, except those having not enough space, should carry a part number which clearly relates it to the manufacturing/inspection data. Additional to the part-number the organisation's identity should be marked on the part for traceability purposes.

#### **AMC 145.A.42(d) Acceptance of components**

1. 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. Certified life-limited parts that have reached or exceeded their certified life limits, or have missing or incomplete records;
- e. Components that cannot be returned to airworthy condition due to exposure to extreme forces, heat or adverse environment;
- 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 can not be retrieved.

2. It is common practice for possessors of aircraft components to dispose of unsalvageable components by selling, discarding, or transferring such items. In some instances, these items have reappeared for sale and in the active parts inventories of the aviation community. Misrepresentation of the status of components and the practice of making such items appear serviceable have resulted in the use of unsalvageable nonconforming Components. Therefore Organisations disposing of unsalvageable aircraft components should consider the possibility of such components later being misrepresented and sold as serviceable components. Caution should be exercised to ensure that unsalvageable components are disposed of in a manner that does not allow them to be returned to service.

#### **AMC 145.A.45(b) Maintenance data**

1. Except as specified in sub-paragraph 5, each maintenance organisation approved under Part-145 should hold and use the following minimum maintenance



data relevant to the organisation's approval class rating. All maintenance related Implementing Rules and associated AMCs , approval specifications and Guidance Material, all applicable national maintenance requirements and notices which have not been superseded by an Agency requirement, procedure or directive and all applicable EASA airworthiness directives plus any non-national airworthiness directive supplied by a contracted non-EU operator or customer.

2. In addition to sub-paragraph 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 sub-paragraph 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 inspection (NDI) 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 sub-paragraph 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 sub-paragraphs 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.

#### **AMC 145.A.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 Part-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 Part-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.A.45(d) Maintenance data**

The referenced procedure should address the need for a practical demonstration by the mechanic to the quality personnel of the proposed modified maintenance instruction. When satisfied the quality 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.

#### **AMC 145.A.45 (f) Maintenance data**

1. Relevant parts of the organisation means with regard to aircraft base maintenance, aircraft line maintenance, engine workshops, mechanical workshops and avionic workshops. Therefore, for example engine workshops should have a common system throughout such engine workshops that may be different to that in aircraft base maintenance.
2. 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 task, it may be necessary to use supplementary workcards or worksheets to indicate what was actually accomplished by each individual person.

#### **AMC 145.A.45 (g) Maintenance data**

1. 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.
2. 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.
3. 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.A.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 Part-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 of safety-critical tasks during periods when staff are likely to be most alert.

#### **AMC145.A.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.

#### **AMC145.A.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.

#### **AMC 145.A.50(a) Certification of maintenance**

1. A component which has been maintained off the aircraft needs the issue 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. In the case of base maintenance this takes the form of a separate task sign off for the maintenance and installation tasks.

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

1.3. "Hazard seriously 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.

2. In the case of the issue of EASA Form 1 for components in storage prior to Part-145 and Part-21 and not released on an EASA Form 1 or equivalent in accordance with 145.A.42(a) or removed serviceable from a serviceable aircraft or an aircraft which have been withdrawn from service the following applies.

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

- Maintained before Part-145 became effective or manufactured before Part-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.
- Components maintained by an unapproved organisation.

2.2. An appropriately rated maintenance organisation approved under Part-145 may issue an EASA Form 1 as detailed in this AMC sub-paragraph 2.5 to 2.9, as appropriate, in accordance with procedures detailed in the exposition as approved by the competent authority. 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 EASA Form 1 under this paragraph.

2.3. For the purposes of this paragraph 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 EASA Form 1 issued in accordance with this paragraph 2 should be issued by signing in block 20 and stating "Inspected" in block 12. In addition, block 13 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 service life limited parts 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 13. The maintenance history record and acceptance test report or statement, if applicable, should be attached to the EASA Form 1.

## 2.5. New / unused aircraft components

2.5.1 Any unused aircraft component in storage without an EASA Form 1 up to the effective date(s) for Part-21 that was manufactured by an organisation acceptable to the competent authority at the time may be issued an EASA Form 1 by an appropriately rated maintenance organisation approved under Part-145. The EASA 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 Part-145 and not a production release under Part-21. It is not intended to bypass the production release procedure agreed by the Member State 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 manufacturers maintenance instructions to establish satisfactory condition and, if relevant, all seals, lubricants and life limited parts replaced. On satisfactory completion after reassembly an EASA Form 1 may be issued stating what was carried out and the reference of the manufacturers maintenance instructions included.

## 2.6. Used aircraft components removed from a serviceable aircraft.

2.6.1. Serviceable aircraft components removed from a Member State registered aircraft may be issued an EASA 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 manufacturer's maintenance instructions.
- 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 EASA 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 effect 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 service life limited parts 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 EASA 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 Member State registered aircraft may only be issued an EASA Form 1 if the components are leased or loaned from the maintenance organisation approved under Part-145 who retains control of the airworthiness status of the components. An EASA 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 a Member State registered aircraft withdrawn from service may be issued an EASA Form 1 by a maintenance organisation approved under Part-145 subject to compliance with this sub paragraph.

- 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 Part-145, employing procedures approved by the competent authority.
- b. To be eligible for installation components removed from such aircraft may be issued with an EASA 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 satisfy itself that the manner in which the components were removed and stored are compatible with the standards required by Part-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 Part-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 manufacturer's recommendations.

2.8. Used aircraft components maintained by organisations not approved in accordance with Part-145.

For used components maintained by a maintenance organisation unapproved under Part-145, due care should be exercised before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under part-145 should establish satisfactory conditions by:

- a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data,
- b) replacing of all service life limit 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 145.A.50.

2.9. Used aircraft components removed from an aircraft involved in an accident or incident.

Such components should only be issued with an EASA Form 1 when processed in accordance with paragraph 2.7 and a specific work order including all additional necessary tests and inspections made 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 13.

### **AMC145.A.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 Part-145 and in respect to that work the aircraft/aircraft component is considered ready for release to service'.

2. The certificate of release to service should relate to the task specified in the manufacturer's or operator's instruction or the aircraft maintenance program which itself may cross-refer to a manufacturer's/operator's instruction in a maintenance manual, service bulletin etc.

3. 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.

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

5. The person issuing the certificate of release to service should use his normal signature except in the case where a computer release to service system is used. In this latter case the competent authority will need to be satisfied that only the particular person can electronically issue the release to service. One such method of compliance is the use of a magnetic or optical personal card in conjunction with a personal identity number (PIN) known only to the individual which is keyed into the computer. A certification stamp is optional.

#### **AMC145.A.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 a competent authority and to allow items removed from one aircraft/aircraft component to be fitted to another aircraft/aircraft component.

The certificate referenced EASA Form 1 is called the authorised release certificate.

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. The certificate is not a delivery or shipping note.

It can only be issued by organisations approved by the particular competent authority within the scope of the approval.

The certificate may be used as a rotatable tag by utilising the available space on the reverse side of the certificate for any additional information and despatching 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 rotatable tags and also supply a copy of the certificate.

Under no circumstances may a certificate be issued for any item when it is known that the item has a defect considered a serious hazard to flight safety.

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 Part-145 and the item needs a certificate for the previous maintenance process carried out for the next maintenance organisation approved under Part-145 to accept the item for subsequent maintenance processes. As mentioned for Block 13, a clear statement of limitation should be endorsed in Block 13.

NOTE: Aircraft may not be released using the certificate.

#### **AMC 145.A.50(e) Certification of maintenance**

1. Being unable to establish full compliance with sub-paragraph Part-145.A.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.

2. The aircraft operator is responsible for ensuring that all required maintenance has been carried out before flight and therefore 145.A.50(e) requires such operator to be informed in the case where full compliance with 145.A.50(a) cannot be achieved within the operators 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 its Member State. In case of doubt concerning such a decision of the operator, the approved maintenance organisation should inform its Member State of such doubt, before issue of the certificate of release to service. This will allow the Member State to investigate the matter with the State of Registry or the State of the operator as appropriate.

3. The procedure should draw attention to the fact that 145.A.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 145.A.30(b) should be kept informed in writing of such possible non-compliance situations and this should be included in the procedure.

#### **AMC 145.A.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 Part-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.

#### **AMC 145.A.55(c) Maintenance records**

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.A.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.

**AMC 145.A.65(a) Safety and quality policy, maintenance procedures and quality system**

The safety and quality policy should as a minimum include a statement committing the organisation to:

- Recognise safety as a prime consideration at all times
- Apply Human factors principles
- Encourage personnel to report maintenance related errors/incidents
- Recognise that compliance with procedures, quality standards, safety standards and regulations is the duty of all personnel
- Recognise the need for all personnel to cooperate with the quality auditors.

**AMC 145.A.65(b) Safety and quality policy, maintenance procedures and quality system**

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.

**AMC 145.A.65(b)(2) Safety and quality policy, maintenance procedures and quality system**

Specialised services includes any specialised activity, such as, but not limited to non-destructive testing requiring particular skills and/or qualification. 145.A.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.

**AMC 145.A.65(b)(3) Safety and quality policy, maintenance procedures and quality system**

1. The purpose of this procedure is to minimise the rare possibility of an error being repeated whereby the identical aircraft components are not reassembled thereby compromising more than one system. One example is the remote possibility of failure to reinstall engine gearbox access covers or oil filler caps on all engines of a multi-engined aircraft resulting in major oil loss from all engines.

Another example is the case of removal and refitment of oil filler caps, which should require a re-inspection of all oil filler caps after the last oil filler cap has supposedly been refitted.

2. Procedures should be established to detect and rectify maintenance errors that could, as minimum, result in a failure, malfunction, or defect endangering the safe operation of the aircraft if not performed properly. The procedure should identify the method for capturing errors, and the maintenance tasks or processes concerned.

In order to determine the work items to be considered, the following maintenance tasks should primarily be reviewed to assess their impact on safety:

- Installation, rigging and adjustments of flight controls,
- Installation of aircraft engines, propellers and rotors,
- Overhaul, calibration or rigging of components such as engines, propellers, transmissions and gearboxes, but additional information should also be processed, such as:
- Previous experiences of maintenance errors, depending on the consequence of the failure,
- Information arising from the ‘occurrence reporting system’ required by 145.A.60,
- Member State requirements for error capturing, if applicable.

3. In order to prevent omissions, every maintenance task or group of tasks should be signed-off. To ensure the task or group of tasks is completed, it should only be signed-off after completion. Work by unauthorised personnel (i.e. temporary staff, trainee,...) should be checked by authorised personnel before they sign-off. The grouping of tasks for the purpose of signing-off should allow critical steps to be clearly identified

Note: A “sign-off” is a statement by the competent person performing or supervising the work, 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 the release to service of the aircraft. “Authorised personnel” means personnel formally authorised by the maintenance organisation approved under Part-145 to sign-off tasks. “Authorised personnel” are not necessarily “certifying staff” .

#### **AMC 145.A.65 (c)(1) Safety and quality policy, maintenance procedures and quality system.**

1. The primary objectives of the quality system are to enable the organisation to ensure that it can deliver a safe product and that organisation remains in compliance with the requirements.

2. An essential element of the quality system is the independent audit .

3. The independent audit is an objective process of routine sample checks of all aspects of the organisation’s ability to carry out all maintenance to the required standards and includes some product sampling as this is the end result of the maintenance process. It represents an objective overview of the complete maintenance related activities and is intended to complement the 145.A.50(a) requirement for certifying staff to be satisfied that all required maintenance has been properly carried out before issue of the certificate of release to service. Independent audits should include a percentage of random audits carried out on a sample basis when maintenance is being carried out. This means some audits during the night for those organisations that work at night.

4. Except as specified in sub-paragraphs 7 and 9, the independent audit should ensure that all aspects of Part-145 compliance are checked every 12 months and may

be carried out as a complete single exercise or subdivided over the 12 month period in accordance with a scheduled plan. The independent audit does not require each procedure to be checked against each product line when it can be shown that the particular procedure is common to more than one product line and the procedure has been checked every 12 months without resultant findings. Where findings have been identified, the particular procedure should be rechecked against other product lines until the findings have been rectified after which the independent audit procedure may revert back to 12 monthly for the particular procedure.

5. Except as specified otherwise in sub-paragraphs 7, the independent audit should sample check one product on each product line every 12 months as a demonstration of the effectiveness of maintenance procedures compliance. It is recommended that procedures and product audits be combined by selecting a specific product example, such as an aircraft or engine or instrument and sample checking all the procedures and requirements associated with the specific product example to ensure that the end result should be an airworthy product.

For the purpose of the independent audit a product line includes any product under an Appendix 2 approval class rating as specified in the approval schedule issued to the particular organisation.

It therefore follows for example that a maintenance organisation approved under Part-145 with a capability to maintain aircraft, repair engines, brakes and autopilots would need to carry out 4 complete audit sample checks each year except as specified otherwise in sub-paragraphs 5, 7 or 9.

6. The sample check of a product means to witness any relevant testing and visually inspect the product and associated documentation. The sample check should not involve repeat disassembly or testing unless the sample check identifies findings requiring such action.

7. Except as specified otherwise in sub-paragraph 9, where the smallest organisation, that is an organisation with a maximum of 10 personnel actively engaged in maintenance, chooses to contract the independent audit element of the quality system in accordance with 145.A.65 (c)(1) it is conditional on the audit being carried out twice in every 12 month period.

8. Except as specified otherwise in sub-paragraph 9, where the organisation has line stations listed as per 145.A.75 (d) the quality system should describe how these are integrated into the system and include a plan to audit each listed line station at a frequency consistent with the extent of flight activity at the particular line station. Except as specified otherwise in sub-paragraph 9 the maximum period between audits of a particular line station should not exceed 24 months.

9. Except as specified otherwise in sub-paragraph 5, the competent authority may agree to increase any of the audit time periods specified in this AMC 145.A.65 (c)(1) by up to 100% provided that there are no safety related findings and subject to being satisfied that the organisation has a good record of rectifying findings in a timely manner.

10. A report should be raised each time an audit is carried out describing what was checked and the resulting findings against applicable requirements, procedures and products.

11. The independence of the audit should be established by always ensuring that audits are carried out by personnel not responsible for the function, procedure or products being checked. It therefore follows that a large maintenance organisation approved under Part-145, being an organisation with more than about 500 maintenance staff should have a dedicated quality audit group whose sole function is to conduct audits, raise finding reports and follow up to check that findings are being rectified. For the medium sized maintenance organisation approved under Part-145, being an organisation with less than about 500 maintenance staff, it is acceptable to

use competent personnel from one section/department not responsible for the production function, procedure or product to audit the section/department that is responsible subject to the overall planning and implementation being under the control of the quality manager. Organisations with a maximum of 10 maintenance staff actively engaged in carrying out maintenance may contract the independent audit element of the quality system to another organisation or a qualified and competent person approved by the competent authority.

#### **AMC 145.A.65(c)(2) Safety and quality policy, maintenance procedures and quality system**

1. An essential element of the quality system is the quality feedback system.
2. The quality feedback system may not be contracted to outside persons. The principal function of the quality feedback system is to ensure that all findings resulting from the independent quality audits of the organisation are properly investigated and corrected in a timely manner and to enable the accountable manager to be kept informed of any safety issues and the extent of compliance with Part-145.
3. The independent quality audit reports referenced in AMC 145.A.65(c)(1) sub-paragraph 10 should be sent to the relevant department(s) for rectification action giving target rectification dates. Rectification dates should be discussed with such department(s) before the quality department or nominated quality auditor confirms such dates in the report. The relevant department(s) are required by 145.A.65(c)(2) to rectify findings and inform the quality department or nominated quality auditor of such rectification.
4. The accountable manager should hold regular meetings with staff to check progress on rectification except that in the large organisations such meetings may be delegated on a day to day basis to the quality manager subject to the accountable manager meeting at least twice per year with the senior staff involved to review the overall performance and receiving at least a half yearly summary report on findings of non-compliance.
5. All records pertaining to the independent quality audit and the quality feedback system should be retained for at least 2 years after the date of clearance of the finding to which they refer or for such periods as to support changes to the AMC 145.A.65(c)(1) sub-paragraph 9 audit time periods, whichever is the longer.

#### **AMC 145.A.70(a) Maintenance organisation exposition**

The following information should be included in the maintenance organisation exposition:

The information specified in 145.A.70 sub - paragraphs (6) and (12) to (16) inclusive, whilst a part of the maintenance organisation exposition, may be kept as separate documents or on separate electronic data files subject to the management part of said exposition containing a clear cross reference to such documents or electronic data files.

The exposition should contain the information, as applicable, specified in this AMC. The information, may be presented in any subject order so long as all applicable subjects are covered. Where an organisation uses a different format, for example, to allow the exposition to serve for more than one approval, then the exposition should contain a cross reference Annex using this list as an index with an explanation as to where in the exposition the subject matter can be found.

Small maintenance organisations may combine the various items to form a simple exposition more relevant to their needs.

The operator may use electronic data processing (EDP) for publication of the maintenance organisation exposition. The maintenance organisation exposition should be made available to the approving competent authority in a form acceptable to the competent authority. Attention should be paid to the compatibility of EDP publication systems with the necessary dissemination of the maintenance organisation exposition, both internally and externally.

PART 0  
GENERAL ORGANISATION (Operators within the European Union)

This section is reserved for those maintenance organisations approved under Part-145 who are also operators within the European Union.

PART 1  
MANAGEMENT

- 1.1 Corporate commitment by the accountable manager.
- 1.2 Safety and quality policy.
- 1.3 Management personnel.
- 1.4 Duties and responsibilities of the management personnel.
- 1.5 Management organisation chart.
- 1.6 List of certifying staff.
- 1.7 Manpower resources.
- 1.8 General description of the facilities at each address intended to be approved.
- 1.9 Organisations intended scope of work.
- 1.10 Notification procedure to the competent authority regarding changes to the organisation's activities/approval/location/personnel.
- 1.11 Exposition amendment procedures including, if applicable, delegated procedures.

PART 2  
MAINTENANCE PROCEDURES

- 2.1 Supplier evaluation and subcontract control procedure.
- 2.2 Acceptance/inspection of aircraft components and material from outside contractors.
- 2.3 Storage, tagging and release of aircraft components and material to aircraft maintenance.
- 2.4 Acceptance of tools and equipment.
- 2.5 Calibration of tools and equipment.
- 2.6 Use of tooling and equipment by staff (including alternate tools).
- 2.7 Cleanliness standards of maintenance facilities.
- 2.8 Maintenance instructions and relationship to aircraft/aircraft component manufacturers' instructions including updating and availability to staff.

- 2.9 Repair procedure.
- 2.10 Aircraft maintenance programme compliance.
- 2.11 Airworthiness directives procedure.
- 2.12 Optional modification procedure.
- 2.13 Maintenance documentation in use and completion of same.
- 2.14 Technical record control.
- 2.15 Rectification of defects arising during base maintenance.
- 2.16 Release to service procedure.
- 2.17 Records for the operator.
- 2.18 Reporting of defects to the competent authority/operator/manufacturer.
- 2.19 Return of defective aircraft components to store.
- 2.20 Defective components to outside contractors.
- 2.21 Control of computer maintenance record systems.
- 2.22 Control of man-hour planning versus scheduled maintenance work.
- 2.23 Control of critical tasks.
- 2.24 Reference to specific maintenance procedures such as -
  - Engine running procedures,
  - Aircraft pressure run procedures,
  - Aircraft towing procedures,
  - Aircraft taxiing procedures.
- 2.25 Procedures to detect and rectify maintenance errors.
- 2.26 Shift/task handover procedures
- 2.27 Procedures for notification of maintenance data inaccuracies and ambiguities, to the type certificate holder.
- 2.28 Production planning procedures

## PART

2

### ADDITIONAL LINE MAINTENANCE PROCEDURES

- L2.1 Line maintenance control of aircraft components, tools, equipment etc.
- L2.2 Line maintenance procedures related to servicing/fuelling/de-icing etc.
- L2.3 Line maintenance control of defects and repetitive defects.
- L2.4 Line procedure for completion of technical log.
- L2.5 Line procedure for pooled parts and loan parts.
- L2.6 Line procedure for return of defective parts removed from aircraft.
- L2.7 Line procedure control of critical tasks.

## PART 3 SYSTEM PROCEDURES

QUALITY

- 3.1 Quality audit of organisation procedures.
- 3.2 Quality audit of aircraft.

- 3.3 Quality audit remedial action procedure.
- 3.4 Certifying staff and category B1 and B2 support staff qualification and training procedures.
- 3.5 Certifying staff and category B1 and B2 support staff records.
- 3.6 Quality audit personnel.
- 3.7 Qualifying inspectors.
- 3.8 Qualifying mechanics.
- 3.9 Aircraft or aircraft component maintenance tasks exemption process control.
- 3.10 Concession control for deviation from organisations' procedures.
- 3.11 Qualification procedure for specialised activities such as NDT welding etc.
- 3.12 Control of manufacturers' and other maintenance working teams.
- 3.13 Human factors training procedure
- 3.14 Competence assessment of personnel.

#### PART 4

- 4.1 Contracted operators.
- 4.2 Operator procedures and paperwork.
- 4.3 Operator record completion.

#### PART 5

- 5.1 Sample of documents.
- 5.2 List of Sub-contractors as per 145.A.75 (b).
- 5.3 List of Line maintenance locations as per 145.A.75 (d).
- 5.4 List of contracted organisations as per 145.A.70(a)(16).

#### PART

6

#### OPERATORS MAINTENANCE PROCEDURES

This section is reserved for those maintenance organisations approved under Part-145 who are also operators.

#### PART 7

FAA

#### SUPPLEMENTARY PROCEDURES FOR A FAR PART-145 REPAIR STATION

This section is reserved for those maintenance organisations approved under Part-145 who are also certificated as a FAA FAR Part-145 repair station.

The content of this Part reflects the differences between Part-145 and FAR Parts 43/145 which will change over time as harmonisation and experience with the FAA progresses.

FAA Advisory Circular 145-7A Appendix 2 contains details of the Part 7 contents.

#### PART 8 TRANSPORT CANADA CIVIL AVIATION (TCCA) SUPPLEMENTARY PROCEDURES FOR A TCCA AM573 MAINTENANCE ORGANISATION



This section reserved for those Part-145 approved maintenance organisations who are also approved as a TCCA AM 573 maintenance organisation.

The content of this Part reflects the difference between Part-145 and AM 573 and will change over time as harmonisation and experience with Transport Canada Civil Aviation progresses.

TCCA Aircraft Maintenance & Manufacturing Staff Instruction MSI 10 Appendix A contains details of the Part 8 contents.

### **AMC 145.A.75(b) Privileges of the organisation**

1. Working under the quality system of an organisation appropriately approved under Part-145 (sub contracting) refers to the case of one organisation, not itself appropriately approved to Part-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 Part-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 Part-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 sub-contracted to another maintenance organisation. It is therefore recommended that any listing of contracted or sub-contracted maintenance organisations should identify which meet the Part-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 SUB-CONTRACTING UNDER PART-145**

3.1 The fundamental reasons for allowing an organisation approved under Part-145 to sub-contract 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 competent authority in such cases.

(b) To permit the acceptance of aircraft maintenance up to but not including a base maintenance check as specified in 145.A.75(b) by organisations not appropriately approved under Part-145 when it is unrealistic to expect direct approval by the competent authority. The competent authority will determine when it is unrealistic but in general it is considered unrealistic if only one or two organisations intend to use the sub-contract 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 145.A.75(b) by organisations not appropriately approved under Part-145 when it is unrealistic to expect direct approval by the competent authority. The determination of unrealistic is as per sub-paragraph (b).

3.2 When maintenance is carried out under the sub-contract control system it means that for the duration of such maintenance, the Part-145 approval has been

temporarily extended to include the sub-contractor. It therefore follows that those parts of the sub-contractor's facilities personnel and procedures involved with the maintenance organisation's products undergoing maintenance should meet Part-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 sub-paragraph 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 sub-contractors 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 competent authority will need to be satisfied that the organisation has the necessary expertise and procedures to control such sub-contractors.

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 Part-145.

3.6 Authorisation to sub-contract is indicated by the competent authority accepting the maintenance organisation exposition containing a specific procedure on the control of sub-contractors.

#### 4 PRINCIPAL PART-145 PROCEDURES FOR THE CONTROL OF SUB-CONTRACTORS NOT APPROVED UNDER PART-145

4.1 A pre audit procedure should be established whereby the maintenance organisations' subcontract control section, which may also be the 145.A.65(b) quality system independent audit section, should audit a prospective sub-contractor to determine whether those services of the sub-contractor that it wishes to use meets the intent of Part-145.

4.2 The organisation approved under Part-145 needs to assess to what extent it will use the sub-contractor'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 Part-145. In the case of sub-contractors 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 Part-145.

4.3 Unless the sub-contracted maintenance work can be fully inspected on receipt by the organisation approved under Part-145 it will be necessary for such organisation to supervise the inspection and release from the sub-contractor. 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 sub-contractor's staff.

4.4 The certificate of release to service may be issued either at the sub-contractor or at the organisation facility by staff issued a certification authorisation in accordance with -145.A.30 as appropriate, by the organisation approved under Part-145. Such staff would normally come from the organisation approved under Part-145 but may otherwise be a person from the sub-contractor who meets the approved maintenance organisation certifying staff standard which itself is approved by the competent authority via the maintenance organisation exposition. The certificate of release to service and the EASA 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 sub-contractor, to have a corrective action follow up plan and to know when sub-contractors are being used. The procedure should include a clear revocation process for sub-contractors who do not meet the Part-145 approved maintenance organisation's requirements.

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

4.7 The contract between the Part-145 approved maintenance organisation and the sub-contractor should contain a provision for the competent authority and EASA standardisation team staff to have right of access to the sub-contractor.

#### **AMC 145.A.80 Limitations on the organisation**

This paragraph is intended to cover the situation where the larger organisation may temporarily not hold all the necessary tools, equipment etc., for an aircraft type or variant specified in the organisation's approval. This paragraph means that the competent authority need not amend the approval to delete the aircraft type or variants on the basis that it is a temporary situation and there is a commitment from the organisation to re-acquire tools, equipment etc. before maintenance on the type may recommence.

#### **AMC 145.A.85 Changes to the organisation**

The primary purpose of this paragraph is to enable the organisation to remain approved if agreed by the competent authority during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases

## **SECTION B PROCEDURE FOR COMPETENT AUTHORITIES**

### **AMC 145.B.10 (1) Competent authority - General**

1. In deciding upon the required organisational structure, the competent authority should review the number of certificates to be issued, the number and size of potential Part-145 approved maintenance organisations within that Member State, as well as the level of civil aviation activity, number and complexity of aircraft and the size of the Member State's aviation industry.
2. The competent authority should retain effective control of important surveillance functions and not delegate them in such a way that Part-145 organisations, in effect, regulate themselves in airworthiness matters.
3. The set-up of the organisational structure should ensure that the various tasks and obligations of the competent authority are not relying on individuals. That means that a continuing and undisturbed fulfilment of these tasks and obligations of the competent authority should also be guaranteed in case of illness, accident or leave of individual employees.

### **AMC 145.B.10 (3) Competent authority – Qualification and training**

1. competent authority surveyors should have:
  - 1.1 practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - 1.2 comprehensive knowledge of:
    - a. relevant parts of implementing rules, certification specifications and guidance material;
    - b. the competent authority's procedures;
    - c. the rights and obligations of a surveyor;
    - d. quality systems;
    - e. continuing airworthiness management.
  - 1.3 training on auditing techniques.
  - 1.4 five years relevant work experience to be allowed to work as an surveyor independently. This may include experience gained during training to obtain the 1.5 qualification.
  - 1.5 a relevant engineering degree or an aircraft maintenance technician qualification with additional education. 'relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components.
  - 1.6 knowledge of maintenance standards.

2. In addition to technical competency, surveyors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.
3. A programme for continuation training should be developed that ensures that the surveyors remain competent to perform their allocated tasks.

#### **AMC 145.B.10 (4) Competent authority - Procedures**

The documented procedures should contain the following information:

- (a) The Member State's designation of the competent authority(ies).
- (b) The title(s) and name(s) of the manager(s) of the competent authority and their duties and responsibilities.
- (c) Organisation chart(s) showing associated chains of responsibility of the senior persons.
- (d) A procedure defining the qualifications for staff together with a list of staff authorised to sign certificates.
- (e) A general description of the facilities.
- (f) Procedures specifying how the competent authority(ies) ensure(s) compliance with Part-145.

#### **AMC 145.B.20 (1) Initial approval**

1. Formally indicated by the competent authority in writing means that the EASA Form 4 should be used for this activity. With the exception of the accountable manager, an EASA Form 4 should be completed for each person nominated to hold a position as required by 145.A.30(b).
2. Formal indication of acceptance should be by use of the EASA Form 4 or in the case of the Accountable Manager via approval of the Maintenance Organisation Exposition containing the Accountable Managers commitment statement.
3. The competent authority may reject an accountable manager where there is clear evidence that they previously held a senior position in any JAR/Part approved Organisation and abused that position by not complying with the particular JAR/Part requirements.

#### **AMC 145.B.20 (2) Initial approval**

Verification that the organisation complies with the exposition procedures should be established by the competent authority approving the maintenance organisation exposition.

### **AMC 145.B.20 (3) Initial approval**

1. The competent authority should determine by whom, and how the audit shall be conducted. For example, for a large organisation, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single man audits are most appropriate for the particular situation.
2. It is recommended that the audit is carried out on a product line type basis in that, for example, in the case of an organisation with Airbus A310 and A320 ratings, the audit be concentrated on one type only for a full compliance check and dependant upon the result, the second type may only require a sample check against those activities seen to be weak on compliance for the first type.
3. The competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the organisation. Normally this is the quality manager. The reason for being accompanied is to ensure the organisation is fully aware of any findings during the audit.
4. The auditing Surveyor should inform the senior technical member of the organisation at the end of the audit visit on all findings made during the audit.

### **AMC 145.B.20 (5) Initial approval**

1. The audit report form should be the EASA Form 6.
2. A quality review of the EASA Form 6 audit report form should be carried out by a competent independent person nominated by the competent authority. The review should take into account the relevant paragraphs of Part-145, the categorisation of finding levels and the closure action taken. Satisfactory review of the audit form should be indicated by a signature on the audit form.

### **AMC 145.B.20 (6) Initial approval**

1. The reports should include the date each finding was cleared together with reference to the competent authority report or letter that confirmed the clearance.
2. There may be occasions when the competent authority surveyor may find situations in the applicant's organisation on which he/she is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time and the fact that the situation will be reviewed within the competent authority before a decision is made.  
If the decision is a finding of being in compliance then a verbal confirmation to the organisation will suffice.
3. Findings should be recorded on the audit report form with a provisional categorisation as a level 1 or 2. Subsequent to the audit visit that identified the particular findings, the competent authority should review the provisional finding levels, adjusting them if necessary and change the categorisation from provisional to confirmed.

4. All findings should be confirmed in writing to the applicant organisation within 2 weeks of the audit visit.

#### **AMC 145.B.25 (1) Issue of approval**

1. For approvals involving more than one Member State the approval should be granted in conjunction with the Member State in whose territory the other maintenance facilities are located. For practical reasons it is recommended that the initial approval should be granted on the basis of a joint audit visit by the approving Member State and the Member State in whose country the facility is located. Audits related to the renewal of the approval should be delegated to the Member State in whose territory the facility is located with the audit form and recommendation submitted to the approving Member State.

2. The approval should be based only upon the organisational capability (including any associated sub-contractors) relative to Part-145 and not limited by reference to EASA/national type certificated products. For example, if the organisation is capable of maintaining within the limitation of Part-145 the Boeing 737-200 series aircraft the approval schedule should state A1 Boeing 737-200 series and not Boeing 737-2H6 which is a particular airline designator for one of many -200 series.

3. The competent authority should indicate approval of the exposition in writing.

#### **AMC 145.B.25 (2) Issue of approval**

The validity of the Part-145 approval should be of unlimited duration.

#### **AMC 145.B.25 (3) Issue of approval**

The numeric sequence should be unique to the particular approved maintenance organisation.

#### **AMC 145.B.30 (1) Continuation of an approval**

Credit may be claimed by the competent authority surveyor(s) for specific item audits completed during the preceding 23 month period subject to four conditions:

- the specific item audit should be the same as that required by Part-145 latest amendment, and
- there should be satisfactory evidence on record that such specific item audits were carried out and that all corrective actions have been taken, and
- the competent authority surveyor(s) should be satisfied that there is no reason to believe standards have deteriorated in respect of those specific item audits being granted a back credit, and
- the specific item audit being granted a back credit should be audited not later than 24 months after the last audit of the item.

### **AMC 145B.30 (2) Continuation of an approval**

1. Where the competent authority has decided that a series of audit visits are necessary to arrive at a complete audit of an organisation, the program should indicate which aspects of the approval will be covered on each visit.
2. It is recommended that part of an audit concentrates on two ongoing aspects of the Part-145 approval, namely the organisations internal self monitoring quality reports produced by the quality monitoring personnel to determine if the organisation is identifying and correcting its problems and secondly the number of concessions granted by the quality manager.
3. At the successful conclusion of the audit including approval of the exposition, an audit report form should be completed by the auditing surveyor including all recorded findings, closure actions and recommendation. An EASA Form 6 should be used for this activity.
4. The accountable manager should be seen at least once every 24 months to ensure he/she fully understands the significance of the approval.
5. In the case of line stations the competent authority can adopt a sampling program based upon number of line stations and complexity.

### **AMC 145.B.35 Changes**

The competent authority should have adequate control over any changes to the management personnel specified in 145.A.30(a) and (b) and such changes in personnel will require an amendment to the exposition.

#### **AMC 145.B.35.(1) Changes**

Changes to the Part-145 approval include the following:

- Name change
- Address change
- Approval scope and rating
- New base facility
- The applicable part/s of the EASA Form 6 should be used for the change.

### **AMC 145.B.40 MOE amendments**

1. It is recommended that a simple exposition status sheet is maintained which contains information on when an amendment was received by the competent authority and when it was approved.
2. The competent authority may define some class of amendments to the exposition which may be incorporated without prior authority approval. In this case a procedure should be stated in the amendment section of the MOE. The exposition chapter dealing with scope of work/approval should not be subject to this procedure.



3. The organisation should submit each exposition amendment to the competent authority whether it is an amendment for approval or a delegated approval amendment. Where the amendment requires approval by the competent authority, the competent authority when satisfied, should indicate its approval in writing. Where the amendment has been submitted under the delegated approval procedure the competent authority should acknowledge receipt in writing.

#### **AMC 145.B.50 (a) Findings**

In practical terms a level 1 finding is where a competent authority finds a significant non-compliance with Part-145.

The following are example level 1 findings:

- Failure to gain access to the organisation during normal operating hours of the organisation in accordance with 145.A.90(2) after two written requests.
- If the calibration control of equipment as specified in 145.A.40(b) had previously broken down on a particular type product line such that most “calibrated” equipment was suspect from that time then that would be a level 1 finding.

Note: A complete product line is defined as all the aircraft, engine or component of a particular type.

For a level 1 finding it may be necessary for the competent authority to ensure that further maintenance and re-certification of all affected products is accomplished, dependent upon the nature of the finding.

In practical terms where a competent authority surveyor finds a non-compliance with Part-145 against one product, it is deemed to be a level 2 finding.

The following are example level 2 findings:

- One time use of a component without any serviceable tag.
- The training documents of the certifying staff are not completed.

#### **AMC 145.B.50 (b) Findings**

1. Where the organisation has not implemented the necessary corrective action within that period it may be appropriate to grant a further period of up to three months, subject to the competent authority notifying the accountable manager. In exceptional circumstances and subject to a realistic action plan being in place, the competent authority may specifically vary the maximum 6 month corrective action period. However, in granting such a change the past performance of the organisation should be considered.

2. It may be necessary for the competent authority to ensure that further maintenance and re-certification of all affected products is accomplished, dependent upon the nature of the finding.

#### **AMC 145.B.55 Record-keeping**

1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organized in a consistent way through out the competent authority (chronological, alphabetical order, etc.).
2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.
3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware or software changes take place special care should be taken to ensure that all necessary data continues to be accessible at least through the full period specified in 145.B.55.

**Appendix I**

**COMPETENT AUTHORITY**

Details of Management Personnel required to be accepted as specified in Part-.....

1.Name:

2.Position:

3.Qualifications relevant to the item (2) position:

4.Work experience relevant to the item (2) position:

Signature: .....

Date: .....

On completion, please send this form under confidential cover to the competent authority

Competent authority use only

Name and signature of authorised competent authority staff member accepting this person:

Signature: ..... Date: .....

Name: ..... Office: .....

EASA Form 4

## Appendix II

### 2) Part-145 APPROVAL RECOMMENDATION REPORT

EASA FORM 6

#### Part 1: General

Name of organisation:

Approval reference:

Requested approval rating/  
Form 3 dated\*:

FAA FAR 145 Cert No. (If app.)

Address of Facility Audited:

Audit period: From            to            :

Date(s) of Audit:

Audit reference(s):

Persons interviewed:

Competent authority surveyor:            Signature(s):

Competent authority office:    Date of Form 6 part 1 completion:

\*delete where applicable

**Part-145 APPROVAL RECOMMENDATION REPORT**

**EASA FORM 6**

**Part 2: Part-145 Compliance Audit Review**

The five columns may be labelled & used as necessary to record the approval class &/or product line reviewed. Against each column used of the following Part-145 sub-paragraphs please either tick (√) the box if satisfied with compliance or cross (X) the box if not satisfied with compliance and specify the reference of the Part 4 finding next to the box or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.

Para	Subject					
145.25	Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.30	Personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.35	Certifying Staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.40	Equipment, Tools, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.42	Acceptance of Components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.45	Maintenance Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.47	Production Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.50	Certification of Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.55	Maintenance Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.60	Occurrence Reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.65	Procedures & Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.70	See Part 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.75	Privileges of AMO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

145.80 Limitations on AMO

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

145.85 Changes to AMO

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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145.90 Continued Validity

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Competent surveyor (s):

Signature(s):

Competent authority office:

Date of Form 6 part 2 completion:

**PART 3: Compliance with 145.A.70 Maintenance organisation exposition**

*Please either tick (✓) the box if satisfied with compliance; or if not satisfied with compliance and specify the reference of the Part 4 finding; or enter N/A where an item is not applicable; or N/R when applicable but not reviewed.*

Part 1	Management	
1.1	<input type="checkbox"/>	Corporate commitment by the accountable manager.
1.2	<input type="checkbox"/>	Safety and Quality Policy.
1.3	<input type="checkbox"/>	Management personnel.
1.4	<input type="checkbox"/>	Duties and responsibilities of the management personnel.
1.5	<input type="checkbox"/>	Management Organisation Chart.
1.6	<input type="checkbox"/>	List of Certifying staff (Note: a separate document may be referenced).
1.7	<input type="checkbox"/>	Manpower resources.
1.8	<input type="checkbox"/>	General description of the facilities at each address intended to be approved.
1.9	<input type="checkbox"/>	Organisations intended scope of work.
1.10	<input type="checkbox"/>	Notification procedure to the competent authority regarding changes to the organisation's activities / approval / location / personnel.
1.11	<input type="checkbox"/>	Exposition amendment procedures.
Part 2	Maintenance Procedures	
2.1	<input type="checkbox"/>	Supplier evaluation and subcontract control procedure.
2.2	<input type="checkbox"/>	Acceptance/inspection of aircraft components and material from outside contractors.
2.3	<input type="checkbox"/>	Storage, tagging, and release of aircraft components and material to aircraft maintenance.
2.4	<input type="checkbox"/>	Acceptance of tools and equipment.
2.5	<input type="checkbox"/>	Calibration of tools and equipment.
2.6	<input type="checkbox"/>	Use of tooling and equipment by staff (including alternate tools).
2.7	<input type="checkbox"/>	Cleanliness standards of maintenance facilities.
2.8	<input type="checkbox"/>	Maintenance instructions and relationship to aircraft/aircraft component manufacturers' instructions including updating and availability to staff.
2.9	<input type="checkbox"/>	Repair procedure.
2.10	<input type="checkbox"/>	Aircraft maintenance programme compliance.
2.11	<input type="checkbox"/>	Airworthiness Directives procedure.
2.12	<input type="checkbox"/>	Optional modification procedure.
2.13	<input type="checkbox"/>	Maintenance documentation in use and completion of same.



2.14  Technical record control.

**Part-145 APPROVAL RECOMMENDATION REPORT**

**EASA FORM 6**

**PART 3: Compliance with 145.A.70 Maintenance organisation exposition**

- |      |                          |  |
|------|--------------------------|--|
| 2.15 | <input type="checkbox"/> | Rectification of defects arising during base maintenance.  |
| 2.16 | <input type="checkbox"/> | Release to service procedure.  |
| 2.17 | <input type="checkbox"/> | Records for the operator.  |
| 2.18 | <input type="checkbox"/> | Reporting of defects to the competent authority /Operator/Manufacturer.                                      |
| 2.19 | <input type="checkbox"/> | Return of defective aircraft components to store.  |
| 2.20 | <input type="checkbox"/> | Defective components to outside contractors.   |
| 2.21 | <input type="checkbox"/> | Control of computer maintenance record systems.  |
| 2.22 | <input type="checkbox"/> | Control of man-hour planning versus scheduled maintenance work.  |
| 2.23 | <input type="checkbox"/> | Control of critical tasks.   |
| 2.24 | <input type="checkbox"/> | Reference to specific maintenance procedures.  |
| 2.25 | <input type="checkbox"/> | Procedures to detect and rectify maintenance errors.   |
| 2.26 | <input type="checkbox"/> | Shift / task handover procedures.  |
| 2.27 | <input type="checkbox"/> | Procedures for notification of maintenance data inaccuracies and ambiguities to the type certificate holder. |
| 2.28 | <input type="checkbox"/> | Production planning procedures   |

Part L2 Additional Line Maintenance Procedures

- |      |                          |  |
|------|--------------------------|--|
| L2.1 | <input type="checkbox"/> | Line maintenance control of aircraft components, tools, equipment, etc.  |
| L2.2 | <input type="checkbox"/> | Line maintenance procedures related to servicing/fuelling/de-icing, etc. |
| L2.3 | <input type="checkbox"/> | Line maintenance control of defects and repetitive defects.              |
| L2.4 | <input type="checkbox"/> | Line procedure for completion of technical log.                          |
| L2.5 | <input type="checkbox"/> | Line procedure for pooled parts and loan parts.                          |
| L2.6 | <input type="checkbox"/> | Line procedure for return of defective parts removed from aircraft.      |
| L2.7 | <input type="checkbox"/> | Line procedure for control of critical tasks                             |

Part 3 Quality System Procedures

- |     |                          |  |
|-----|--------------------------|--|
| 3.1 | <input type="checkbox"/> | Quality audit of organisation procedures.              |
| 3.2 | <input type="checkbox"/> | Quality audit of aircraft.                             |
| 3.3 | <input type="checkbox"/> | Quality audit remedial action procedure.               |
| 3.4 | <input type="checkbox"/> | Certifying staff qualification and training procedure. |

3.5	<input type="checkbox"/>	Certifying staff records.
3.6	<input type="checkbox"/>	Quality audit personnel.

**Part-145 APPROVAL RECOMMENDATION REPORT** **EASA FORM 6**

**PART 3: Compliance with 145.A.70 Maintenance organisation exposition**

3.7	<input type="checkbox"/>	Qualifying inspectors.
3.8	<input type="checkbox"/>	Qualifying mechanics.
3.9	<input type="checkbox"/>	Aircraft / aircraft component maintenance tasks exemption process control.
3.10	<input type="checkbox"/>	Concession control for deviation from organisation's procedures.
3.11	<input type="checkbox"/>	Qualification procedure for specialised activities such as NDT, welding etc.
3.12	<input type="checkbox"/>	Control of manufacturers' and other maintenance working teams.
3.13	<input type="checkbox"/>	Human Factors training procedure
3.14	<input type="checkbox"/>	Competence assessment of personnel

Part 4

4.1	<input type="checkbox"/>	Contracted operators.
4.2	<input type="checkbox"/>	Operator procedures/paperwork.
4.3	<input type="checkbox"/>	Operator record completion.

Part 5 Appendices

5.1	<input type="checkbox"/>	Sample Documents
5.2	<input type="checkbox"/>	List of sub-contractors
5.3	<input type="checkbox"/>	List of Line maintenance locations
5.4	<input type="checkbox"/>	List of Part-145 organisations

**Date of Form 6 part 3 completion:**

MOE Reference: MOE Amendment:

Competent authority audit staff: Signature(s):

Competent authority office: Date of Form 6 part 3 completion:



3)

4) **Part-145 APPROVAL RECOMMENDATION REPORT**

**EASA FORM 6**

**Part 4: Findings Part-145 Compliance status**

Each level 1 and 2 finding should be recorded whether it has been rectified or not and should be identified by a simple cross reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for the necessary corrective action.

Part 2 or 3 ref.	Audit reference(s):  <i>Findings</i>	L e v e l	Corrective action		
			Date Due	Date Closed	Reference

**Part 5: Part-145 Approval or continued approval or change recommendation\***

Name of organisation:

Approval reference:

Audit reference(s):

The following Part-145 scope of approval is recommended for this organisation:

Or, it is recommended that the Part-145 scope of approval specified in EASA Form 3 referenced ..... be continued.

Name of recommending competent authority surveyor:

Signature of recommending competent authority surveyor:

Competent authority office:

Date of recommendation:

Form 6 review (quality check) :

Date:

**Appendix III**

**Competent authority**

**Part-145 Approval**

**Application for initial  
grant**

**Change**

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**1. Registered name of applicant:**

**2. Trading name (if different):**

**3. Addresses requiring approval:**

**4. Tel. .... Fax ..... E-mail .....**

**5. Scope of Part-145 Approval relevant to this application: see page 2 for possibilities:**

**6. Position and name of the (proposed\*) Accountable Manager:.....**

.....

**7. Signature of the (proposed\*) Accountable Manager:**

.....

**8. Place: .....**

**9. Date: .....**

Note (1) : A note giving the address(es) to which the Form(s) should be sent.

Note (2) : An optional note to give information on any fees payable.

\* Applicable only in the case of a new Part-145 Applicant.



**SCOPE OF PART-145 APPROVAL AVAILABLE**

<b>CLASS</b>	<b>RATING</b>	<b>LIMITATION</b>	<b>BASE</b>	<b>LINE</b>
AIRCRAFT	A1 Aeroplanes/airships above 5700 Kg	Quote aeroplane/airship type		
	A2 Aeroplanes/airships 5700 Kg and below	Quote aeroplane/airship manufacturer or group or type		
	A3 Helicopters	Quote helicopter manufacturer or group or type		
	A 4 Aircraft other than A1, A2 or A3	Quote aircraft type or group		
ENGINES	B1 Turbine	Quote engine type		
	B2 Piston	Quote engine manufacturer or group or type		
	B3 APU	Quote engine manufacturer or type		
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	Quote aircraft type or aircraft manufacturer or component manufacturer or the particular component and or cross refer to a capability list in the exposition.		
	C2 Auto Flight			
	C3 Comms and Nav			
	C4 Doors – Hatches			
	C5 Electrical Power			
	C6 Equipment			
	C7 Engine – APU			
	C8 Flight Controls			
	C9 Fuel – Airframe			
	C10 Helicopter – Rotors			
	C11 Helicopter – Trans			
	C12 Hydraulic			
	C13 Instruments			
	C14 Landing Gear			
	C15 Oxygen			
	C16 Propellers			
	C17 Pneumatic			
	C18 Protection ice/rain/fire			
	C19 Windows			
	C20 Structures			
SPECIALISED SERVICES	D1 Non destructive insp.	Quote particular NDT method		
<p><b>With reference to the above scope of approval and item 5 on page 1, please complete in the following example style, but relevant to your organization.</b></p>				

<b>A1</b>	<b>Base &amp; Line Boeing 737-200</b>	<b>B2</b>	<b>Lycoming Piston</b>
<b>A2</b>	<b>Base Piper PA34</b>	<b>B3</b>	<b>Garrett GTCP85</b>
<b>A2</b>	<b>Base &amp; Line Cessna Piston Twins</b>	<b>C2</b>	<b>SFENA</b>
<b>A3</b>	<b>Bell 206/212</b>	<b>C4</b>	<b>Boeing 747</b>
<b>B1</b>	<b>CFM 56</b>	<b>D1</b>	<b>Eddy Current</b>

There maybe any number of types/manufacturers, etc. listed against each rating.