

SECTION 1 – REQUIREMENTS

1 GENERAL

This Section 1 contains the Requirements for Approved Maintenance Organisations.

2 PRESENTATION

[2.1 The requirements of JAR-145 are presented in two columns on loose pages, each page being identified by the date of issue and the Amendment number under which it is amended or reissued.]

2.2 Sub-headings are in italic typeface.

2.3 Explanatory Notes not forming part of the requirements appear in smaller typeface.

2.4 New, amended and corrected text is enclosed within heavy brackets.

[2.5 Following amended paragraphs, a summary of the amendments made to the paragraph is indicated in square brackets. This text has no regulatory status.]

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JAR 145.1 General
(See AMC & IEM 145.1)

(a) No aircraft when used for Commercial Air Transport may fly unless a certificate of release to service has been issued by an organisation for maintenance carried out on the aircraft or an aircraft component intended for fitment to such an aircraft.

(b) No organisation may certify for release to service an aircraft used for Commercial Air Transport unless either approved in accordance with this JAR-145 or accepted in accordance with the JAR-145.10(c) alternative. Except where stated otherwise in subparagraph (e), no organisation may maintain such an aircraft unless either appropriately approved in accordance with this JAR-145 or accepted in accordance with the JAR 145.10(c) alternative, or working under the quality system of an appropriately approved or accepted JAR-145 maintenance organisation.

NOTE: A JAR-145 approval is not required for the pre-flight inspection.

(c) No organisation may certify for release to service an aircraft component intended for fitment to an aircraft used for Commercial Air Transport unless either approved in accordance with this JAR-145 or accepted in accordance with the JAR-145.10(c) alternative. Except where stated otherwise in subparagraph (e), no organisation may maintain such an aircraft component unless either appropriately approved in accordance with this JAR-145 or accepted in accordance with the JAR-145.10(c) alternative, or working under the quality system of an appropriately approved or accepted JAR-145 maintenance organisation.

(d) A maintenance organisation approval may be granted for maintenance activity varying from that for an aircraft component to that for a complete aircraft or any combination thereof.

(e) An organisation working under the quality system of either an appropriately approved JAR-145 maintenance organisation or an organisation accepted in accordance the JAR-145.10(c) alternative is limited to the work scope permitted by the JAR-145.65 (b) procedures and may not carry out a base maintenance check of an aircraft or a complete workshop maintenance check or overhaul of an engine or engine module.

[Ch 1, 4.8.95; Ch 2, 10.7.98; Amdt. 3, 01.04.01]

JAR 145.3 Effectivity
(See IEM 145.3)

(a) This JAR-145 was first issued on 30 July 1991 and became effective on 1 January 1992 with the exception of JAR-145.1 which became effective in accordance with the following schedule.

(1) Organisations that carry out base maintenance and certify release to service of aeroplanes/ airships above 5 700 kg maximum certificated take off weight must be in compliance with JAR-145.1 (b) after 30 June 1994.

(2) Organisations that carry out line maintenance and certify release to service of aeroplanes/ airships above 5 700 kg maximum certificated take off weight must be in compliance with JAR-145.1 (b) after 30 September 1994.

(3) Organisations that carry out maintenance and certify release to service of engines must be in compliance with JAR-145.1 (c) after 30 September 1994.

(4) Organisations that carry out maintenance and certify release to service of aeroplanes/airships up to and including 5 700 kg maximum certificated take off weight and/or helicopters of any weight must be in compliance with JAR-145.1 (b) after 31 December 1994.

(5) Organisations that carry out maintenance and certify release to service of aircraft components (other than complete engines), auxiliary power units and specialised services must be in compliance with JAR-145.1 (c) after 31 December 1994.

(b) A JAR-145 Approval may be issued by the JAA full member Authority prior to the para (a) dates.

(c) Any aircraft or aircraft component that is required to be maintained in accordance with the para (a) schedule may until that time be maintained by either an organisation approved or accepted in accordance with JAR-145 or in accordance with national legislation in force prior to the para (a) schedule or a combination of both.

(d) JAR-145 approved or accepted maintenance organisations that have or intend to have maintenance carried out under their quality system by another organisation in accordance with JAR-145.1(b) or (c) must be in compliance

JAR 145.3(d) (continued)

with the limitations of JAR-145.1(e) after 10 July 2000.

(e) Organisations that carry out or intend to carry out maintenance of aircraft with a maximum take-off mass of 5 700 kg and above must be in compliance with JAR-145.30([g]) and ([j]), as appropriate, after 01 June 2001 but may choose to be partly or completely in compliance before this date.

(f) Organisations must be in compliance with JAR-145.35 as amended by amendment 145/99/1 after 01 June 2001 but may choose to be partly or completely in compliance before this date.

(g) Organisations must be in compliance with Amendment 3 to JAR-145 as specified after the stated dates, but may choose to be partly or completely in compliance before the stated dates;

(1) Amended JAR-145.30 ([f]) after 31 December 2003.

(2) All other sub-paragraphs amended by Amendment 3 to JAR-145 after 31 December 2001.

[(h) Organisations must be in compliance with Amendment 5 to JAR-145 as specified after the stated dates, but may choose to be partly or completely in compliance before the stated dates;

(1) Amended JAR 145.60 after 1 January 2004.

(2) Amended JAR-145.30 (e) after 1 July 2005.

(3) All other sub-paragraphs amended by Amendment 5 to JAR-145 after 1 September 2003.]

NOTE: Where an existing sub-paragraph has been amended, it is essential to understand that compliance with the pre-amendment text is still required until superseded by the compliance date for the amended text unless the organisation chooses to comply with the amended text before the compliance date for the amended text. Pre-amendment text should therefore be retained at least until the compliance date has been superseded.

[Ch. 1, 4.8.95; Ch. 2, 10.7.98; Amdt. 3, 01.04.01; Amdt. 5, 01.01.03]

JAR 145.5 Definitions

(See IEM 145.5)

For the purpose of this JAR-145 the following definitions shall apply:

'Accountable manager' means the manager who has corporate authority for ensuring that all maintenance required by the customer can be

JAR 145.5 (continued)

financed and carried out to the standard required by the JAA full member Authority.

'Aircraft' means an aeroplane, helicopter or airship.

'Aircraft component' means any assembly/item/component/part of an aircraft up to and including a complete powerplant and/or any operational/ emergency equipment.

'Approved by the JAA full member Authority' means approved by the JAA full member Authority directly or in accordance with a procedure approved by the Authority.

'Approved standard' means a manufacturing/design/maintenance/quality standard approved by the JAA full member Authority.

'Certifying staff' means those personnel who are authorised by the approved maintenance organisation in accordance with a procedure acceptable to the JAA full member Authority to certify aircraft or aircraft components for release to service.

'Commercial Air Transport' means the carriage of Passengers/Cargo/Mail for remuneration.

[*'Human Factors'* means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration of human performance.

'Human Performance' means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.]

'Inspection' means the examination of an aircraft/aircraft component to establish conformity with an approved standard.

'JAR-145 certification authorisation' means the authorisation issued to certifying staff by the JAR-145 approved maintenance organisation and which specifies the fact that they may sign JAR-145.50 certificates of release to service within the limitations stated in such authorisation on behalf of the JAR-145 approved maintenance organisation.

'Location' means a place from which an organisation carries on activities or wishes to carry on activities for which a JAR-145 approval is required.

'Maintenance' means any one or combination of overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft/aircraft component.

JAR 145.5 (continued)

'Maintenance data' means any information necessary to ensure that the aircraft or aircraft component can be maintained in a condition such that airworthiness of the aircraft, or serviceability of operational and emergency equipment as appropriate, is assured.

'Maintenance Organisation Exposition' means the document(s) that contain the material required by JAR-145.70 to show how the organisation complies with JAR-145.

'Modification' means the alteration of an aircraft/aircraft component in conformity with an approved standard.

'Organisation' means either an organisation registered as a legal entity in any jurisdiction whether or not within the territories of the States that have joined the Joint Aviation Authorities or a natural person. Such an organisation may be located at more than one location and may hold more than one JAR-145 approval.

'Overhaul' means the restoration of an aircraft/aircraft component by inspection and replacement in conformity with an approved standard to extend the operational life.

'Pre-flight inspection' means the inspection carried out before flight to ensure that the aircraft is fit for the intended flight. It does not include defect rectification.

'Quality policy' means the overall intentions and direction of an organisation as regards quality, as approved by the accountable manager.

'Repair' means the restoration of an aircraft/aircraft component to a serviceable condition in conformity with an approved standard.

[Ch. 1,4.8.95; Ch. 2, 10.7.98; Amdt. 3, 01.04.01; Amdt. 4, 01.11.01; Amdt. 5, 01.01.03]

JAR 145.10 Applicability

(See AMC & IEM 145.10)

(a) This JAR prescribes the requirements for issuing approvals to organisations for the maintenance of aircraft and aircraft components and prescribes the general operating rules for approved maintenance organisations. The approval, when granted, will apply to the whole organisation headed by the accountable manager.

(b) An organisation which is located, in whole or in part, within the territories of the Joint Aviation Authorities full member States will be granted approval in respect of any such location within those territories when in compliance with this JAR-145.

JAR 145.10 (continued)

(c) An organisation which is located, in whole or in part, outside the territories specified in sub-paragraph (b) will only be granted approval in respect of any such location outside those territories if the JAA full member Authority is satisfied that there is a need for such approval to maintain aircraft/aircraft components at that location and when in compliance with this JAR-145. Alternatively, the JAA full member Authority may accept such an organisation on the basis of an approval granted by an Authority that is not a member or full member of the Joint Aviation Authorities subject to the organisation being in compliance with published JAA maintenance special conditions to ensure equivalence to JAR-145. The alternative accepted organisation may be required to show a need before being accepted.

[Ch. 1, 4.8.95; Ch. 2, 10.7.98]

JAR 145.15 Application and issue

(See AMC 145.15)

(a) An application for maintenance organisation approval or for the amendment of an existing maintenance organisation approval shall be made on a form and in a manner prescribed by the JAA full member Authority and submitted with the required number of copies of the maintenance organisation's exposition or amendment thereto.

(b) An applicant who meets the requirements of this JAR-145 and has paid any charges prescribed by the JAA full member Authority is entitled to a maintenance organisation approval.

[Ch. 2, 10.7.98]

JAR 145.20 Extent of approval

(See IEM 145.20)

The grant of approval is indicated by the issue of an approval certificate to the organisation by the JAA full member Authority. The approval certificate will specify the extent of approval. The JAR-145 approved maintenance organisation's exposition must specify the scope of work deemed to constitute approval.

[Ch. 2, 10.7.98]

JAR 145.25 Facility requirements

(See AMC 145.25)

(a) Facilities must be provided appropriate for all planned work, ensuring in particular,

JAR 145.25(a) (continued)

protection from the weather elements. Specialised workshops and bays must be segregated as appropriate, to ensure that environmental and work area contamination is unlikely to occur.

(b) Office accommodation must be provided appropriate for the management of the sub-paragraph (a) planned work including in particular, the management of quality, planning and technical records.

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

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

[Ch. 2, 10.7.98]

JAR 145.30 Personnel requirements

(See AMC 145.30)

(a) A senior person or group of persons acceptable to the JAA full member Authority, whose responsibilities include ensuring that the JAR-145 approved maintenance organisation is in compliance with JAR-145 requirements, must be nominated. Such person(s) must ultimately be directly responsible to the accountable manager who must be acceptable to the JAA full member Authority.

[(b) The accountable manager is responsible for establishing and promoting the safety and quality policy specified under JAR 145.65(a) .]

[(c)] The accountable manager must nominate a sub-paragraph (a) senior person, with responsibility for monitoring the JAR 145.65(c) quality system including the associated feedback system. Such senior person must have right of direct access to the accountable manager to ensure that the accountable manager is kept properly informed on quality and compliance matters.

JAR 145.30 (continued)

[(d)] The JAR-145 approved maintenance organisation must have a maintenance man-hour plan showing that the organisation has sufficient staff to plan, perform, supervise, inspect and quality monitor the organisation in accordance with the approval. In addition the organisation must have a procedure to reassess work intended to be carried out when actual staff availability is less than the planned staffing level for any particular work shift or period.

[(e)] The competence of personnel involved in maintenance[, management] and/or quality audits must be established and controlled in accordance with a procedure and to a standard acceptable to the JAA full member Authority. [In addition to the necessary expertise related to the job function, competence must include an understanding of the application of human factors and human performance issues appropriate to that persons' function in the organisation.]

[(f)] Personnel who carry out and/or control a continued airworthiness non-destructive test of aircraft structures and/or aircraft components must be appropriately qualified for the particular non-destructive test in accordance with the JAA agreed issue of European standard EN 4179, except that the JAA full member Authority may accept an equivalent standard in the case of any JAR-145 approved / accepted maintenance organisation located outside the JAA full member States. Personnel who carry out any other specialised task must be appropriately qualified in accordance with any existing national standard recognised by the JAA full member Authority as an appropriate standard.

(1) Notwithstanding sub-paragraph [(f)], personnel qualified prior to 31 December 2003 in accordance with any national standard recognised by the JAA full member Authority may continue to carry out and/or control such non-destructive test after 31 December 2003. Any such personnel who intend to carry out and/or control a non-destructive test for which they were not qualified prior to 31 December 2003 must qualify for such non-destructive test in accordance with the JAA agreed issue of European standard EN 4179.

(2) Notwithstanding sub-paragraph [(f)], those personnel specified in subparagraph [(g)](1) and [(g)](2), qualified in JAR-66 sub-category B1 may carry out and/or control colour contrast dye penetrant tests.

JAR 145.30 (continued)

[(g)] Any JAR-145 approved maintenance organisation maintaining aircraft with a maximum take-off mass of 5 700 kg and above, except where stated otherwise in sub-paragraph [(j)] must have;

(1) In the case of aircraft line maintenance, appropriate aircraft type rated certifying staff qualified in accordance with JAR-145.35 plus JAR-66 sub-category B1 and B2. In addition such JAR-145 approved maintenance organisation may also use appropriate task trained certifying staff qualified in accordance with JAR-145.35 plus JAR-66 category A to carry out minor scheduled line maintenance and simple defect rectification. The availability of such category A certifying staff does not replace the need for JAR-66 sub-category B1 and B2 certifying staff to support the category A certifying staff except that such JAR-66 sub-category B1 and B2 staff need not always be present at the line station during minor scheduled line maintenance or simple defect rectification.

(2) In the case of aircraft base maintenance, appropriate aircraft type rated certifying staff qualified in accordance with JAR-145.35 plus JAR-66 category C. In addition such JAR-145 approved maintenance organisation must have appropriate aircraft type rated staff qualified in accordance with JAR-145.35 (b) and (e) plus JAR-66 sub-category B1 and B2 to support the category C certifying staff. The JAR-145 approved maintenance organisation must maintain a register of any such JAR-66 sub-category B1 and B2 qualified support staff.

[(h)] Reserved for certifying staff of aircraft under 5 700 kg maximum take-off mass. Until such time as JAR-66 specifies a requirement for certifying staff of aircraft under 5 700 kg maximum take-off mass, continued compliance is required with the current national aviation regulations of the JAA full member Authority that granted or proposes to grant JAR-145 approval.

[(i)] Reserved for certifying staff of aircraft components. Until such time as JAR-66 specifies a requirement for certifying staff of aircraft components, continued compliance is required with the current national aviation regulations of the JAA full member Authority that granted or proposes to grant JAR-145 approval.

[(j)] Notwithstanding sub-paragraph [(g)] the JAR-145 approved maintenance organisation may in the following circumstances use certifying staff qualified as specified in this sub-

JAR 145.30(j) (continued)

paragraph subject to compliance with the conditions stated for each circumstance;

(1) For a non-JAA State or non-JAA full member State based JAR-145 maintenance organisation approved by a JAA full member Authority, the organisation may use certifying staff qualified in accordance with the national aviation regulations of the State in which the organisation is based subject to the JAA full member Authority in conjunction with the JAA Maintenance Division being satisfied that such regulations result in a standard of qualification comparable with JAR-66. Published JAA additional conditions, where specified, will need to be satisfied to ensure equivalence.

(2) Reserved for non-JAA State based JAR-145 maintenance organisation accepted by the JAA full member Authorities in accordance with JAR-145.10(c).

(3) For limited line maintenance carried out by another organisation under the quality system of a JAA full member Authority approved JAR-145 maintenance organisation at a non-JAA State or non-JAA full member State location the organisation may use certifying staff qualified in accordance with the national aviation regulations of the State of the location, subject to the JAA full member Authority in conjunction with the JAA Maintenance Division being satisfied that such regulations result in a standard of qualification comparable with JAR-66. Published JAA additional conditions, where specified, will need to be satisfied to ensure equivalence.

(4) For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the JAR-145 approved maintenance organisation may issue a limited JAR-145 certification authorisation to the aircraft commander and/or the flight engineer subject to being satisfied that sufficient practical training has been carried out to ensure that such aircraft commander or flight engineer can accomplish the airworthiness directive to the required standard.

(5) For the unforeseen case of an aircraft grounded at a location not having an appropriately approved or accepted JAR-145 maintenance organisation, the JAR-145 approved or accepted maintenance organisation contracted to provide maintenance support may issue a one-off

JAR 145.30(j) (continued)

JAR-145 certification authorisation to a person with not less than 5 years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification subject to the JAR-145 maintenance organisation obtaining and holding on file evidence of the experience and the licence. All such cases must be reported to the JAA full member Authority within 7 days of the issuance of such certification authorisation. The JAA full member Authority will require any such maintenance that could affect flight safety to be rechecked by the contracted JAR-145 approved or accepted maintenance organisation.

For the purposes of this sub-paragraph unforeseen means that the aircraft grounding could not reasonable have been predicted by the operator because the defect was unexpected due to being part of a hitherto reliable system.

[Ch. 2, 10.7.98; Amdt. 3, 01.04.01; Amdt. 5, 01.01.03]

JAR 145.35 Certifying staff
(See AMC 145.35)

(a) In addition to the appropriate JAR-145.30 [(g)] to [(j)] sub-paragraph(s), the JAR-145 approved maintenance organisation must ensure that certifying staff have an adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures before the issue or re-issue of the JAR-145 certification authorisation. Relevant aircraft and/or aircraft component(s) means those aircraft and/or aircraft component(s) specified in the particular JAR-145 certification authorisation.

(b) The JAR-145 approved maintenance organisation must ensure that all aircraft release certifying staff are involved in at least 6 months of actual aircraft maintenance experience in any 2 year period. For the purpose of this sub-paragraph involved in actual aircraft maintenance means the person has worked in an aircraft maintenance environment and has either exercised the privileges of the JAR-145 certification authorisation and/or has actually carried out maintenance on at least some of the aircraft type systems specified in the particular JAR-145 certification authorisation.

(c) The JAR-145 approved maintenance organisation must ensure that all certifying staff receive sufficient continuation training in each 2 year period to ensure that such certifying staff have up to date knowledge of relevant

JAR 145.35(c) (continued)

technology, organisation procedures and human factor issues.

(d) The JAR-145 approved maintenance organisation must establish a programme for the continuation training and a procedure to ensure compliance with the relevant sub-paragraphs of JAR-145.35 as the basis for issue of JAR-145 certification authorisations to certifying staff, plus, if applicable, a procedure to ensure compliance with JAR-66.

(e) Except for the JAR-145.30 [(j)](5) one off JAR-145 certification authorisation, all prospective certifying staff must be assessed by the JAR-145 approved maintenance organisation for their competence, qualification and capability to carry out their intended certifying duties in accordance with a procedure acceptable to the JAA full member Authority before the issue or re-issue of a JAR-145 certification authorisation.

(f) The JAR-145 approved maintenance organisation must issue a JAR-145 certification authorisation that clearly specifies the scope and limits of such authorisation to those staff that it nominates as certifying staff on behalf of the organisation when satisfied that such staff are in compliance with sub-paragraphs (a), (c) and (e) plus (b) as applicable. Continued validity of the JAR-145 certification authorisation is dependent upon continued compliance with sub-paragraphs (a) and (c) plus (b) as applicable.

(g) The manager or person responsible for the quality system must also remain responsible on behalf of JAR-145 approved maintenance organisation for issuing JAR-145 certification authorisations to certifying staff. Such manager or person may nominate other persons to actually issue the JAR-145 certification authorisations in accordance with a procedure acceptable to the JAA full member Authority.

(h) The JAR-145 approved maintenance organisation must maintain a record of all certifying staff which must include details of any JAR-66 aircraft maintenance licence held, all training completed and the scope of their JAR-145 certification authorisation. The record must include those with limited or one-off JAR-145 certification authorisations.

(i) Certifying staff must be provided with a copy of their JAR-145 certification authorisation. The copy may be in either a documented or electronic format.

JAR 145.35 (continued)

(j) Certifying staff must be able to produce their JAR-145 certification authorisation to any authorised person within a reasonable time.

[Amdt. 3, 01.04.01; Amdt. 5, 01.01.03]

JAR 145.40 Equipment, tools and material

(See AMC 145.40)

(a) The JAR-145 approved maintenance organisation must have the necessary equipment, tools and material to perform the approved scope of work.

(b) Where necessary, tools, equipment and particularly test equipment must be controlled and calibrated to standards acceptable to the JAA full member Authority at a frequency to ensure serviceability and accuracy. Records of such calibrations and the standard used must be kept by the JAR-145 approved maintenance organisation.

JAR 145.45 Maintenance data

(See AMC 145.45)

(a) The JAR-145 approved maintenance organisation must hold and use applicable current maintenance data in the performance of maintenance including modifications and repairs. Applicable means relevant to any aircraft, aircraft component or process specified in the JAR-145 approved maintenance organisation's approval class rating schedule and any associated capability list.

(b) For the purposes of JAR-145 applicable maintenance data is;

(1) Any applicable requirement, procedure, airworthiness directive, operational directive or information issued by the JAA or JAA full member Authority.

(2) Any applicable airworthiness directive issued by a non-JAA Authority or non-JAA full member Authority where said Authority is the original type certificate Authority.

(3) Any applicable data, such as but not limited to, maintenance and repair manuals, issued by an organisation under the approval of the JAA full member Authority including type certificate and supplementary type certificate holders and any other organisation approved to publish such data by the said Authority.

JAR 145.45(b) (continued)

(4) Unless specified otherwise by the JAA full member Authority, any applicable data, such as but not limited to, maintenance and repair manuals, issued by an organisation under the approval or authority of a non JAA Authority or non-JAA full member Authority where said Authority is the original type certificate Authority.

(5) Any applicable standard, such as but not limited to, maintenance standard practises issued by any Authority, institute or organisation and recognised by the JAA full member Authority as a good standard for maintenance.

(6) Any applicable data issued in accordance with sub-paragraph [(d)].

[(c) The JAR-145 approved maintenance organisation must establish procedures that ensure that if found, any inaccurate, incomplete or ambiguous procedures, practices, information or maintenance instructions contained in the maintenance data used by maintenance personnel is recorded and notified to the author of the maintenance data.]

[(d)] The JAR-145 approved maintenance organisation may only modify maintenance instructions in accordance with a procedure specified in the maintenance organisation's exposition where it can be shown that such modified maintenance instruction results in equivalent or improved maintenance standards and subject to the type certificate holder being informed. Maintenance instructions for the purpose of this sub-paragraph means an instruction on how to carry out the particular maintenance task. The JAR-145 approved maintenance organisation may not carry out the engineering design of repairs and modifications under this sub-paragraph [(d)].

[(e)] A JAR-145 approved maintenance organisation must be appropriately approved as required by JAR-21 Subpart M to classify repairs as minor or major and to approve minor repair design data. Such approval is not required for a JAR-145 approved maintenance organisation that only carries out repairs in accordance with the approved type certificate holders published repair data or any other JAA full member Authority approved repair data. Whether approved or not in accordance with this sub-paragraph the JAR-145 approved maintenance organisation must establish a procedure to ensure that appropriate action is taken in the case of damage assessment and the need to use only approved repair data.

[(f)] Except where stated otherwise in sub-paragraph [(f)](1), the JAR-145 approved maintenance organisation must provide a common workcard or worksheet system for use throughout relevant parts of the organisation and must either transcribe accurately the maintenance data contained in sub-paragraphs (b), [(d)] and [(e)] onto such workcards or worksheets or make precise reference to the particular maintenance task(s) contained in such maintenance data. Workcards and worksheets may be computer generated and held on an electronic data base subject to both adequate safeguards against unauthorised alteration and a back-up electronic data base which is updated within 24 hours of any entry made to the main electronic data base.

(1) Where the JAR-145 approved maintenance organisation provides a maintenance service to an aircraft operator who require their workcard or worksheet system to be used then such workcard or worksheet system may be used. In this case the JAR-145 approved maintenance organisation must establish a procedure to ensure correct completion of the aircraft operators workcards or worksheets.

[(g)] The JAR-145 approved maintenance organisation must ensure that all applicable maintenance data is readily available for use when required by maintenance personnel.

[(h)] The JAR-145 approved maintenance organisation must ensure that maintenance data controlled by the organisation is kept up to date. In the case of operator / customer controlled and provided maintenance data, the JAR-145 approved maintenance organisation must show that either it has written confirmation from the operator / customer that all such maintenance data is up to date or it has work orders specifying the amendment status of the maintenance data to be used or it can show that it is on the operator / customer maintenance data amendment list.

[Amdt. 3, 01.04.01; Amdt. 5, 01.01.03]

[JAR 145.47 Production Planning

(See AMC & IEM 145.47)

(a) The JAR 145 approved maintenance organisation must have a system appropriate to the amount and complexity of work to plan the availability of all necessary personnel, tools, equipment, material, maintenance data and facilities in order to ensure the safe completion of the maintenance work.

(b) The planning of maintenance tasks, and the organising of shifts, must take into account human performance limitations.

(c) When it is required to hand over the continuation or completion of a maintenance action for reasons of a shift or personnel changeover, relevant information must be adequately communicated between outgoing and incoming personnel in accordance with a procedure acceptable to the JAA full member Authority.]

[Amdt. 5, 01.01.03]

JAR 145.50 Certification of maintenance (See AMC 145.50)

(a) Except where stated otherwise in sub-paragraphs (d), (e) and (f) a certificate of release to service must be issued by appropriately authorised certifying staff on behalf of the JAR-145 approved maintenance organisation when satisfied that all maintenance required by the customer of the aircraft or aircraft component has been properly carried out by the JAR-145 approved maintenance organisation in accordance with the procedures specified in the JAR-145.70 maintenance organisation exposition taking into account the availability and use of the maintenance data specified in JAR-145.45.

NOTE: An aircraft component which has been maintained off the aircraft requires 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.

(b) A certificate of release to service must contain basic details of the maintenance carried out, the date such maintenance was completed and the identity including approval reference of the JAR-145 approved maintenance organisation and certifying staff issuing such a certificate.

(c) Used aircraft component release certificates issued prior to the appropriate JAR 145.3 (a)(3) or (5) date by organisations not approved to JAR-145 remain valid until 1 January 2000. However, the aircraft JAR-145 approved maintenance organisation shall satisfy itself that the particular aircraft component may be fitted to the aircraft when different modifications and/or airworthiness directive standards may be applicable.

(d) Notwithstanding sub-paragraph (a) when a JAR-145 maintenance organisation approved to maintain the aircraft is unable to complete all maintenance required by the customer, being the aircraft operator, within the

JAR 145.50(d) (continued)

aircraft operators limitations, then such fact must be entered in the aircraft certificate of release to service before issue of such certificate.

(e) Notwithstanding sub-paragraph (a), when an aircraft is grounded at a location other than the main line station or main maintenance base due to the non-availability of an aircraft component with the appropriate release certificate, it is permissible to temporarily fit an aircraft component without the appropriate release certificate for a maximum of 30 flight hours or until the aircraft first returns to the main line station or main maintenance base, whichever is the sooner, subject to the aircraft operator agreement and said component having a suitable serviceable tag but otherwise in compliance with all other JAR-OPS 1 or 3 Subpart M and JAR-145 requirements. Such aircraft components must be removed by the specified time unless an appropriate release certificate has been obtained in the meantime.

(f) Notwithstanding sub-paragraphs (a), (c), (d) and (e), A certificate of release to service must not be issued in the case of any non-compliance known to the JAR-145 approved maintenance organisation which could hazard flight safety.

[Ch. 1, 4.8.95; Ch. 2, 10.7.98; Amdt. 3, 01.04.01]

JAR 145.55 Maintenance records
(See AMC & IEM 145.55)

(a) The JAR-145 approved maintenance organisation must record all details of work carried out in a form acceptable to the JAA full member Authority.

(b) The JAR-145 approved maintenance organisation must provide a copy of each certificate of release to service to the aircraft operator, together with a copy of any specific approved repair/modification data used for repairs/modifications carried out.

(c) The JAR-145 approved maintenance organisation must retain a copy of all detailed maintenance records and any associated maintenance data for two years from the date the aircraft or aircraft component to which the work relates was released from the JAR-145 approved maintenance organisation.

NOTE: Where an aircraft operator contracts a JAR-145 approved maintenance organisation to keep the aircraft operator's certificates of release to service and any associated approved repair/modification data, the retention period will be that required by JAR-OPS 1 (3) Subpart M and not that specified in JAR 145.55(c). Until JAR-OPS 1 (3) becomes fully effective, the JAR-145 approved maintenance

JAR 145.55 (continued)

organisation must comply with the current national aviation regulations of the aircraft operator's Authority.

[Ch 2, 10.7.98;Amdt.3, 01.04.01]

JAR 145.60 [Occurrence reporting]
[(See AMC 145.60, IEM 145.60, ACJ 20X8)]

(a) The JAR-145 approved maintenance organisation must report to [its' JAA full member Authority and the organisation responsible for the design of the aircraft or aircraft component] any condition of the aircraft or aircraft component, identified by the JAR-145 approved maintenance organisation that [has resulted or may result in an unsafe condition] that could seriously hazard the aircraft.

(b) [The JAR-145 approved maintenance organisation must establish an internal occurrence reporting system acceptable to the JAA full member Authority to enable the collection and evaluation of such reports including the assessment and extraction of those occurrences to be reported under subparagraph (a) above. The procedure shall identify adverse trends, corrective actions taken to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.]

[(c)] Reports must be made [in a manner acceptable to] the JAA full member Authority and contain all pertinent information about the condition [and evaluation results] known to the JAR-145 approved maintenance organisation.

[(d)] Where the JAR-145 approved maintenance organisation is contracted by [] [an] operator to carry out maintenance, the JAR-145 approved maintenance organisation must also report to the [] operator any such condition affecting the [] operator's aircraft or aircraft component. [In the case of an aircraft, where the state of registration is different to that of the JAA full member Authority that issued the appropriate JAR 145 or JAR OPS approval(s), then the National Aviation Authority of the state of registry must also be informed.]

[(e)] Reports must be made as soon as practicable but in any case within [72 hours] of the JAR-145 approved maintenance organisation identifying the condition to which the report relates.

[Ch. 2, 10.7.98; Amdt. 5, 01.01.03]

JAR 145.70(a) (continued)

JAR 145.65 Maintenance procedures and quality system

(See AMC & IEM 145.65)

(a) The JAR-145 approved maintenance organisation must establish a [safety and] quality policy for the organisation to be included in the JAR 145.70 exposition.

(b) The JAR-145 approved maintenance organisation must establish procedures acceptable to the JAA full member Authority [taking into account human factors and human performance] to ensure good maintenance practices and compliance with all relevant requirements in this JAR-145 which must include a clear work order or contract such that aircraft and aircraft components may be released to service in accordance with JAR 145.50.

(c) The JAR-145 approved maintenance organisation must establish a quality system that includes;

(1) Independent audits in order to monitor compliance with required aircraft/ aircraft component standards and adequacy of the procedures to ensure that such procedures invoke good maintenance practices and airworthy aircraft / aircraft components. In the smallest organisations the independent audit part of the quality system may be contracted to another JAR-145 approved maintenance organisation or a person with appropriate technical knowledge and proven satisfactory audit experience acceptable to the JAA full member Authority, and;

(2) A quality feedback reporting system to the person or group of persons specified in JAR 145.30(a) and ultimately to the accountable manager that ensures proper and timely corrective action is taken in response to reports resulting from the independent audits established to meet JAR-145.65(c)(1).

[Ch. 2, 10.7.98; Amdt. 3, 01.04.01; Amdt. 5, 01.01.03]

JAR 145.70 Maintenance organisation exposition

(See IEM 145.70)

(a) The JAR-145 approved maintenance organisation must provide a maintenance organisation exposition for use by the JAR-145 approved maintenance organisation, containing the following information:

(1) A statement signed by the accountable manager confirming that the

maintenance organisation exposition and any referenced associated manuals defines the JAR-145 approved maintenance organisation's compliance with JAR-145 and will be complied with at all times. When the accountable manager is not the chief executive officer of the JAR-145 approved maintenance organisation then such chief executive officer must countersign the statement.

(2) The organisations JAR-145.65 (a) [safety and] quality policy.

(3) The title(s) and name(s) of the senior person(s) accepted by the JAA full member Authority in accordance with JAR 145.30(a).

(4) The duties and responsibilities of the senior person(s) specified in sub-paragraph (3) including matters on which they may deal directly with the JAA full member Authority on behalf of the JAR-145 approved maintenance organisation.

(5) An organisation chart showing associated chains of responsibility of the senior person(s) specified in sub-paragraph (3).

(6) A list of certifying staff.

(7) A general description of manpower resources.

(8) A general description of the facilities located at each address specified in the JAR-145 approved maintenance organisation's approval certificate.

(9) A specification of the JAR-145 approved maintenance organisation's scope of work relevant to the extent of approval.

(10) The notification procedure of JAR 145.85 for JAR-145 approved maintenance organisation changes.

(11) The maintenance organisation exposition amendment procedure.

NOTE: Sub-paragraphs (1) to (11) inclusive constitutes the management part of the maintenance organisation exposition.

(12) The JAR-145 approved maintenance organisation's procedures and quality system as required by - JAR 145.25 [to JAR 145.95 inclusive.]

(13) A list of JAR-OPS operators, if appropriate, to which the JAR-145 approved maintenance organisation provides an aircraft maintenance service.

JAR 145.70(a) (continued)

(14) A list of organisations, if appropriate, as specified in JAR 145.75(b).

(15) A list of line stations, if appropriate, as specified in JAR 145.75(d).

(16) A list of contracted JAR-145 approved maintenance organisations, if appropriate.

(b) The information specified in 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.

(c) The maintenance organisation exposition and any subsequent amendments must be approved by the JAA full member Authority.

[Ch. 2, 10.7.98; Amdt. 3, 01.04.01; Amdt. 5, 01.01.03]

JAR 145.75 Privileges of the approved maintenance organisation

The JAR-145 approved maintenance organisation may only carry out the following tasks as permitted by and in accordance with the JAR-145 approved maintenance organisation exposition:

(a) Maintain any aircraft or aircraft component for which it is approved at the locations identified in the approval certificate and/or in the JAR-145 approved maintenance organisation exposition.

(b) Arrange for maintenance of any aircraft or aircraft component within the limitations of JAR 145.1(e) for which it is approved at another organisation that is working under the quality system of the JAR-145 approved maintenance organisation.

(c) Maintain any aircraft or any aircraft component for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance subject to the conditions specified in a procedure acceptable to the JAA full member Authority and included in the JAR-145 approved maintenance organisation exposition.

(d) Maintain any aircraft or aircraft component for which it is approved at a location identified as a line maintenance location capable of supporting minor maintenance and only if the

JAR 145.75(d) (continued)

JAR-145 approved maintenance organisation exposition both permits such activity and lists such locations.

(e) Issue certificates of release to service in respect of paragraphs (a) to (d) on completion of maintenance in accordance with JAR 145.50.

[Ch. 1, 4.8.95; Ch. 2, 10.7.98]

JAR 145.80 Limitations on the approved maintenance organisation

(See IEM 145.80)

The JAR-145 approved maintenance organisation may only maintain an aircraft or aircraft component for which it is approved when all necessary facilities, equipment, tooling, material, maintenance data and certifying staff are available.

[Ch. 2, 10.7.98; Amdt. 3, 01.04.01]

JAR 145.85 Changes to the approved maintenance organisation

(See IEM 145.85)

(a) The JAR-145 approved maintenance organisation must notify the JAA full member Authority of any proposal to carry out any of the following changes before such changes take place to enable the JAA full member Authority to determine continued compliance with this JAR-145 and to amend, if necessary, the approval certificate, except that in the case of proposed changes in personnel not known to the management beforehand, these changes must be notified at the earliest opportunity.

(1) The name of the organisation.

(2) The location of the organisation.

(3) Additional locations of the organisation.

(4) The accountable manager.

(5) Any of the senior persons specified in paragraph JAR 145.30 (a).

(6) The facilities, equipment, tools, material, procedures, work scope and certifying staff that could affect the approval.

(b) The Authority may prescribe the conditions under which the JAR-145 approved maintenance organisation may operate during such changes unless the Authority determines that the approval should be suspended.

[Ch. 2, 10.7.98]

JAR 145.90 Continued validity of approval

Unless the approval has previously been surrendered, superseded, suspended, revoked or expired by virtue of exceeding any expiry date that may be specified in the approval certificate, the continued validity of approval is dependent upon -

(a) The JAR-145 approved maintenance organisation remaining in compliance with JAR-145 and;

(b) The JAA full member Authority being granted access to the JAR-145 approved maintenance organisation to determine continued compliance with this JAR-145 and;

(c) The payment of any charges prescribed by the JAA full member Authority. Failure to pay entitles the JAA full member Authority to suspend, but does not automatically render the approval invalid.

[Ch. 2, 10.7.98]

JAR 145.95 Equivalent safety case

(See IEM 145.95)

(a) The JAA full member Authority may exempt an organisation from a requirement in JAR-145 when satisfied that a situation exists not envisaged by a JAR-145 requirement and subject to compliance with any supplementary condition(s) said Authority considers necessary to ensure equivalent safety. Such supplementary condition(s) must be agreed by the JAA full member Authorities to ensure continued recognition of the approval.

(b) The JAA full member Authority may exempt an organisation from a requirement in JAR-145 on an individual case by case permission basis only subject to compliance with any supplementary condition(s) said Authority considers necessary to ensure equivalent safety.

[Ch. 2, 10.7.98]

JAR 145.100 Revocation, suspension, limitation or refusal to renew the JAR 145 approval certificate

(See IEM 145.100)

The JAA full member Authority may, on reasonable grounds after due enquiry, revoke, suspend, limit or refuse to renew the JAR-145 approval certificate if said Authority is not satisfied that the holder of the approval certificate continues to meet the requirements of

JAR 145.100 (continued)

JAR-145 subject to the conditions of subparagraph (a) or (b) as appropriate.

(a) Except as specified in subparagraph (b), before revoking, suspending, limiting or refusing to renew a JAR-145 approval certificate, the JAA full member Authority must first give at least 28 days notice to the holder in writing of its intention so to do and the reasons for its proposal and must offer the holder an opportunity to make representations and said Authority will consider those representations.

(b) In the case where the JAA full member Authority has determined that the safe operation of an aircraft could be adversely affected said Authority may in addition to subparagraph (a) provisionally suspend, in part or in whole, the JAR-145 approval certificate without prior notice until the sub-paragraph (a) procedure is complete.

[Ch. 2, 10.7.98]

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