



Approval of Organisations for Maintenance of Aircraft and Components

1 Purpose

The purpose of this Airworthiness Notice is:

- a) to provide guidance to UK industry on CAA approval policy with respect to Part-145 approval of maintenance organisations engaged in the maintenance of aircraft used for Commercial Air Transport or in the maintenance of components to be fitted to such aircraft; and
- b) to set out CAA policy concerning national maintenance approvals and requirements relating to aircraft NOT used for Commercial Air Transport (EASA and non-EASA) and relating to maintained components to be fitted to such aircraft.

NOTE 1: For the purpose of this Notice, 'Maintenance' means any one or combination of Overhaul, Repair, Inspection, Modification or defect rectification of a component.

NOTE 2: The acceptance of new components intended for installation in aircraft issued with a UK Certificate of Airworthiness by the UK CAA, irrespective of whether the aircraft is or is not used for Commercial Air Transport, is addressed in CAAIP Leaflet 1-12.

2 Introduction

- 2.1 Part-145 covers the approval of organisations engaged in the maintenance of aircraft or aircraft components used for Commercial Air Transport. This regulation will also apply to all large aircraft, regardless of use, from 28 September 2008. Part-145 and the Acceptable Means of Compliance and Guidance Material is available on the EASA Website. For details of other maintenance related EASA regulations and their implementation within the UK refer to Airworthiness Notice No 7.

NOTE: For the purpose of this regulation a "large aircraft" means an aeroplane with a maximum take-off mass of more than 5700 kg, or a multi-engine helicopter.

- 2.2 Organisations approved by the CAA to Part-145 will have details of their approval, including their name and address, listed in CAP 475 available from the CAA website. Part-145 Approvals granted to organisations by EASA or competent authorities within the EU member states will be recognised without further technical requirements or evaluation by other EU competent authorities.

3 CAA Approval Policy for Part-145 Requirements

- 3.1 Part-145 came into effect on 29 November 2003 for the maintenance of all aircraft when used for Commercial Air Transport (CAT). The certificate of release to service (CRS) required after maintenance of an aircraft or an aircraft component used for

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Commercial Air Transport, can only be issued by an organisation appropriately approved in accordance with Part-145 by an EU Member State competent authority or by EASA.

NOTE: It is incumbent upon UK organisations placing maintenance work with other approved organisations to confirm the validity of that 'approval' as they can be provisionally suspended for those organisations that do not maintain the required standards. Reference should be made to CAP 475 and EASA lists of approved organisations.

4 Certifying Staff

4.1 Organisations applying for Approval under Part-145 for the maintenance of aeroplanes or rotorcraft with a Maximum Take-Off Mass (MTOM) of 5700 kg and above used for Commercial Air Transport will be required to demonstrate to the CAA that they employ, in accordance with the requirements of Part-145.A.30, a sufficient number of appropriately qualified certifying staff who hold:

- a) Part-66 licences in the appropriate category or sub-category issued by an EU Member State competent authority including where appropriate the relevant aircraft type ratings, or
- b) Part-66 restricted licences in the appropriate category or sub-category issued by an EU Member State competent authority including where appropriate the relevant aircraft restricted type ratings.

NOTE: Organisations must ensure that care is taken in determining what training must be undertaken to extend any authorisation held, since even with restricted Part-66 licences, the imposed limitations endorsed by each NAA may differ.

4.2 Organisations holding or applying for Approval for the maintenance of Airships must meet the relevant requirements of BCAR Section A, A8-18 and its associated supplements. Certification authorisations will, until such times as appropriate provision for Airship licences has been incorporated into Part-66, be based upon BCAR Section L, Category 'A and C' airship LWTRs. Unless agreed otherwise by the CAA, type training will be required to be conducted by a suitably approved Part-147 organisation.

4.3 Organisations holding or applying for Approval under Part-145 or Part M Subpart F for the maintenance of aircraft with an MTOM less than 5700 kg will be required to demonstrate to the CAA that they employ a sufficient number of certifying staff, who hold the appropriate type rated licences issued under BCAR Section L or Part-66, to be authorised to issue certificates of release to service for all required maintenance.

4.4 Organisations holding or applying for Approval for the maintenance of aircraft components intended for fitment to aircraft used for Commercial Air Transport, are required to demonstrate to the CAA that they employ sufficient numbers of certifying staff (Part 145.A.30(d)), who are qualified by the organisation to issue an EASA Form 1 (Certificate of Release to Service) on the basis of appropriate competence, training and experience.

NOTES: 1) If component maintenance is required which is outside the scope of work of a Part-145 'A' rated organisation, it must be Released to Service by an appropriately Part-145 'B', 'C' or 'D' rated organisation. When a Part-145 'B', 'C' or 'D' rated organisation performs maintenance on components fitted to an aircraft during

Base or Line maintenance, the Certificate of Release to Service must be issued on an EASA Form 1 by appropriately authorised component certifying staff. The process for controlling such work on components fitted to aircraft must be in accordance with a procedure contained in the Maintenance Organisation Exposition (MOE).

- 2) It is the intention of EASA to include requirements for qualification standards for certifying staff involved in component maintenance in a future amendment to Part-66.

5 CAA Approval Policy for National Requirements

- 5.1 Until the full implementation of Part 'M' in September 2008 organisations which are solely engaged in the maintenance of aircraft not exceeding 2730 kg Maximum Take-Off Mass which are NOT used for Commercial Air Transport, may continue to be approved, or may apply for the grant or variation of an approval, in accordance with the requirements of BCAR Section A Chapter A8-15. An approval granted under this requirement would be a CAA 'National' approval.
- 5.2 Organisations which are engaged in the maintenance of aircraft exceeding 2730 kg Maximum Take-Off Mass which are NOT used for Commercial Air Transport will be subject to the appropriate BCAR Maintenance Approval Group Requirements under BCAR Chapter A8.
- 5.3 Organisations engaged in the maintenance of components for which there is no intended use for Commercial Air Transport may also apply for Approval in accordance with these Requirements (see 5.1 and 5.2).
- 5.4 Application for changes/variations to existing maintenance approvals granted under BCAR Sub-section A8 will continue to be accepted by the CAA from organisations where Part-145 approval is not necessary.
- 5.5 The CAA has adopted Part-66 as the basis for qualifying Maintenance Certifying Staff working outside of a Part-145 Organisation, replacing current licensing arrangements under BCAR Section L. Where such a licence does not exist for aircraft below 5700 kg the CAA will accept a BCAR Section L Licence. Such provision has already been made for the issue of new licences in respect of aeroplanes and rotorcraft (helicopters). The requirements for BCAR Maintenance Approval Group Requirements under BCAR Chapter A8 will also be reviewed and amended accordingly.

6 CAA Approvals

- 6.1 Organisations which hold Part-145 Approval or an appropriate CAA National Maintenance Approval may continue to be granted these terms of Approval if they meet the appropriate requirements. There are a number of functions which can be covered by a CAA Approval that are not as yet addressed by EASA Requirements. These functions include (but are not limited to) the following:
 - a) To issue Certificates of Maintenance Review in accordance with Article 14 of the Air Navigation Order 2005 (as amended) when required.
 - b) To issue certificates of release to service in accordance with Article 16 of the Air Navigation Order 2005 (as amended) when required.

NOTE: This Approval relates to the certification of work on aircraft and/or components NOT used for Commercial Air Transport.

- c) To issue Certificates of Fitness for Flight in accordance with the provision of BCAR Chapter A/B 3-8, ('A' Conditions) and to issue a flight release certificate for an EASA Permit to Fly.
- d) To perform Star Inspections in accordance with BCAR A/B 3-4.
- e) To furnish reports to the CAA in accordance with Article 165 of the Air Navigation Order 2005 (as amended) in respect of:
Assessments and recommendations for the Renewal of the Certificate of Airworthiness for aircraft as defined in the Maintenance Organisation Exposition, as Approved in accordance with BCAR A8-15, or as Approved in accordance with BCAR A8-3.
- f) To amend Maintenance, Overhaul, Repair Manuals and Wiring Diagrams in accordance with BCAR A/B 5-3.
- g) Control of Welders Approvals.

7 Maintenance of EASA Aircraft – Non Commercial Air Transport

7.1 Aircraft which are not being used for the purposes of Commercial Air Transport may continue to be maintained by organisations approved by the CAA for the purpose or by appropriately licensed aircraft maintenance engineers in accordance with the privileges accorded to the licence holder (see Airworthiness Notice No. 3 and 10) until 28 September 2008.

NOTE: It is acceptable to use a UK CAA issued Part-66 licence which is appropriately type rated to certify for UK registered aircraft which are NOT used for commercial air transport and outside of a Part-145 organisation where, so permitted, by the licence and Airworthiness Notice No. 3.

7.2 An organisation currently approved to **BCAR Chapter A8-15** whose activities are limited to C of A renewal recommendations and maintenance of aircraft NOT used for Commercial Air Transport may continue to be approved in accordance with BCAR Chapter A8-15 until 28 September 2008.

7.3 Aircraft on the UK Register, which are NOT used for Commercial Air Transport, may have components fitted, which have been released to service in accordance with Part-145 or Part M Subpart F.

7.4 The person issuing the certificate of release to service for the fitting of a component to an aircraft on the UK register is responsible for ensuring that the records of that component are sufficient to enable its maintenance and operating history to be established, including the embodiment of modifications and mandatory ADs, service life used etc.

8 Maintenance of EASA Aircraft when changing from any Non Commercial Operation (non-CAT) to Commercial Air Transport Operation (CAT)

8.1 Aircraft maintained in accordance with paragraph 7.1 will require release to service by an appropriately approved Part-145 organisation, prior to the aircraft being used for Commercial Air Transport. The release to service may, for example, be in accordance with the alignment check required to transfer the aircraft from the current aircraft maintenance programme to the Commercial Air Transport operator's CAA approved maintenance programme.

NOTES: 1) For aircraft of 2730 kg and below, the maintenance checks for this alignment shall be at minimum, but not limited to, a 100 hour check for helicopters or a 150 hour check for aeroplanes in accordance with the LAMS or the approved alternative CAA approved maintenance schedule.

- 2) For aircraft above 2730 kg the Maintenance Check content for alignment shall be agreed by the CAA to be of sufficient depth to provide a satisfactory level of assurance of airworthiness.
- 3) A Part-145.A.50 CRS will be issued on completion of an alignment check as required above.
- 4) Operators of aircraft that may transfer between CAT and non-CAT operations must ensure that all aircraft and component maintenance is released by an appropriately approved Part-145 organisation, or accept the need for assessment and re-certification as necessary by a Part-145 organisation before commercial operations are commenced.

8.2 Components (including engines and equipment) that have been overhauled or maintained in accordance with paragraph 9.1 or 9.2 will require assessment by a Part-145 approved organisation prior to the aircraft to which these components are fitted being used for the purposes of Commercial Air Transport.

9 Maintenance of Components (including Engines, Propellers, APUs and Equipment) – Excluding Commercial Air Transport and large aircraft – EASA Aircraft

NOTE: 'Large Aircraft' means an aircraft classified as an aeroplane with a maximum take-off mass of more than 5700 kg or a multi-engined helicopter.

9.1 Components (including engines and equipment) that are intended for fitment to aircraft not used for the purpose of Commercial Air Transport may continue to be released to service by organisations approved by the CAA for the purpose under Part M Subpart F, BCARs, or by appropriately licensed aircraft maintenance engineers.

9.2 Maintained components that are intended for fitment to UK registered aircraft not used for the purpose of Commercial Air Transport may continue to be released to service by organisations outside of the UK, (including the United States of America and Canada), provided that they are:

- a) the manufacturer of that component or aircraft, or
- b) under the control of the aircraft or engine or propeller Type Certificate holder or are authorised by the Type Certificate holder's National Aviation Authority for the particular purpose, at the time that the component was released to service.

9.3 Components (including engines and equipment) that are intended for fitment to aircraft not used for Commercial Air Transport may be released to service by an organisation approved in accordance with Part-145 for that aircraft or component.

9.4 When components are fitted to an aircraft with a Certificate of Airworthiness not used for Commercial Air Transport, and in accordance with paragraphs 9.1 or 9.2 above, the required records, (e.g. aircraft, engine log books) must be endorsed with the following:

'This component has not been maintained in accordance with Part-145 and as such, may not be fitted to an aircraft used for the purposes of Commercial Air Transport until/unless released to service by an appropriately approved Part-145 organisation.'

9.5 Prior to 28 September 2008 where it is intended to fit used components which have been maintained in a state other than the United Kingdom to an aircraft, in accordance with this Airworthiness Notice, the component shall be accompanied by an appropriate release certificate from the state of export following maintenance in that state and prior to fitting to the UK registered aircraft. For Class 1 components (engines

and propellers) an export statement is required (e.g. from the USA, a Form 8130-4 for Class 1 components and Form 8130-3 for all other used components).

After 28 September 2008 all used components fitted to UK-registered aircraft must be in compliance with Part M Subpart E, M.A.501.

10 Maintenance of Components (Including Engines, Propellers, APUs and Equipment) - Non-EASA Aircraft

- 10.1 Components (including engines, propellers, APUs and equipment) that are intended for fitment to non-EASA aircraft as defined in EC Regulation 1592/2002 Articles 1(2) and 4(2) (the current list may be found in CAP 747 Mandatory Requirements for Airworthiness, Section 1, Part 2) may be released to service by an organisation approved in accordance with BCAR Section A8 and holding the rating for that aircraft or component.

11 Bilateral Aviation Safety Agreement (BASA)

A full listing of EASA Part-145 approved maintenance organisations in the USA and Canada is available on the EASA website.

12 Charges

Full details of the charges associated with CAA approval are prescribed in the Official Record Series 5, which is available on the CAA web site at www.caa.co.uk, under the heading of Publications.

13 Application

Enquiries regarding the grant of a Part-145 approval, Part M Subpart F approval or a CAA Maintenance Approval to National requirements should be made in writing to the Safety Regulation Group, Aviation House, Gatwick Airport South, West Sussex RH6 0YR, marked for the attention of the Applications and Approvals Department. Further information will then be supplied, including an application form. Applications for Part-145 approval from organisations outside the EU territories should be made directly to EASA.

14 Cancellation

This Notice cancels Airworthiness Notice No. 14 Issue 18, dated 28 March 2007, which should be destroyed.

Airworthiness Notice No. 14, Appendix 4

Issue 2

31 October 2007

Subcontracting to Non-Approved Organisations

1 General

1.1 The UK CAA has from the 28 September 2005 cancelled the approval of those organisations approved in accordance with BCAR in the following categories: A8-1, A8-2, A8-4, A8-5, A8-6, A8-7, A8-9, A8-16 and A8-19, unless involved with the design or manufacture of non-EASA aircraft.

NOTE: Non-EASA aircraft are those aircraft not included as an EASA aircraft for the following reasons:

- a) identified within Annex II of EC Regulation 1592/2002;
- b) excluded by Article 1, paragraph 2 of EC Regulation 1592/2002;
- c) currently excluded by Article 2, paragraph 3 (c) of EC Regulation 1702/2003.

As approvals A8-5 and A8-6 have a considerable impact on aircraft maintenance and continuing airworthiness, paragraphs 2 and 3 of this appendix are raised to provide guidance on the subcontracting of these activities.

1.2 In order to issue a Part 145.A.50 Certificate of Release to Service of an aircraft component used in Commercial Air Transport, an organisation must meet one of the following criteria:

- a) an organisation is approved in accordance with Part-145;
- b) an organisation is contracted to another appropriately approved Part-145 organisation; or
- c) an organisation is working under the quality system of an appropriately approved Part-145 organisation (AMC 145.A.75 (b)) - this arrangement is known as "subcontracting".

2 Introduction

2.1 Part 145.A.75 (b) permits an organisation that is **not** appropriately approved in accordance with Part-145 to carry out certain maintenance tasks whilst working under the quality system of an approved Part-145 organisation - this is commonly referred to as subcontracting.

2.2 Part-145 organisations frequently need to subcontract certain specialised maintenance tasks such as: plating, heat treatment, plasma spray, fire testing, etc. without the need for the subcontractor to be directly approved in accordance with Part-145.

2.3 The UK CAA will accept a United Kingdom Accreditation Service accredited laboratory certificate where applicable for specialised maintenance tasks such as: heat treatment, fire testing, etc.

2.4 When maintenance is carried out under a subcontract control system it means that for the duration of such maintenance the Part-145 approval has been temporarily extended to include the subcontractor and requires the quality audit staff to ensure the Part-145 requirements are satisfied.

2.5 The Part-145 approved organisation should have the necessary competence, expertise and procedures to allow it to determine that the subcontractor is able to comply with the particular process/standard identified in the contract.

2.6 The contract between the Part-145 approved organisation and the unapproved subcontractor should contain a provision for the competent authority and EASA standardisation team staff to have right of access to the subcontractor.

3 Procedure for Acceptance of Work from Non-approved Organisations

3.1 When subcontracting work to a non-approved organisation, the Part-145 organisation's procedures must make the following provisions:

- a) the pre-audit procedure should ensure that the subcontracted company has a valid national accreditation where applicable, acceptable to the CAA (i.e. United Kingdom Accreditation Service);
- b) the Part-145 approved organisation should ensure the subcontractor providing the specialised service is listed in their Maintenance Organisation Exposition;
- c) subcontracted process work acceptance should be fully described in the Part-145 approved organisation's procedures including the acceptance of the format for the release of the contracted work;
- d) the subcontract control procedure will need to ensure the national accreditation, where applicable, remains valid and appropriate for the contract required;
- e) the Part-145 quality audit staff will need to audit their subcontract control section and sample audit the subcontractors when appropriate, as part of the quality programme;
- f) the depth of the audit should be reflected in the accreditation, if any, held by the unapproved organisation;
- g) the subcontracted control procedure will need to ensure the UKAS or applicable approval remains valid and appropriate for the contract required;
- h) the Certificate of Release to Service/EASA Form 1 for the release of the task or process will always be issued under the Part-145 approved maintenance organisation approval reference;
- i) the Certificate of Release to Service may be issued either at the subcontractor or at the organisation facility, by staff issued with a certification authorisation in accordance with 145.A.30 as appropriate, by the organisation approved under Part-145; and
- j) such staff would normally come from the organisation approved under Part-145 but may otherwise be a person from the subcontractor who meets the approved maintenance organisation certifying standard, which is itself approved by the competent authority via the maintenance exposition.

3.2 When listing a non-approved organisation as a subcontractor the appropriate national accreditation status must be identified.

Airworthiness Notice No. 14, Appendix 5

Issue 3

31 October 2007

Acceptable Data for use by Part-145 Organisations

1 General

- 1.1 The UK CAA frequently receives questions from maintenance organisations asking what data is approved and acceptable for Part-145 organisations to use when implementing repairs. There seems to be a lack of definition in the current regulations as to what exactly is required, in terms of data, paperwork and approval status, especially for repair data coming from outside the EU. In order to assist, we have put guidance material together for UK industry that we hope will provide some clarity on this issue.

2 Introduction

- 2.1 Currently EASA will accept the design approval of repair data in one of the following ways:
- a) By being accepted by any EU member state prior to 28 September 2003;
 - b) Under Part-21 Subpart M;
 - c) Under a Decision issued by EASA.
- 2.2 Repair approval under a) and b) are believed to be well understood, but there may remain some confusion over c).
- 2.3 In December 2004, EASA issued Decisions 2004/02/CF, 2004/03/CF and 2004/04/CF (see www.easa.europa.eu/home/agendecds_en.html) that allow for the acceptance of repair designs for products where the USA, Canada or Brazil is the State of Design. This acceptance was based upon the repairs being approved under those national systems. How those systems work and what is and what is not acceptable under those systems may not be clear to the majority of maintenance organisations who may wish to make use of these Decisions.

3 Acceptable Data

- 3.1 In order to prevent Maintenance Organisations either using data that is not approved under those systems or demanding more than is required, it is recommended that organisations take the following actions:
- a) For the acceptance of minor repair data from an organisation under the oversight of the National Aviation Authorities of USA, Canada and Brazil, it is recommended that maintenance organisations obtain confirmation that:
 - the repair design is provided by persons suitably regulated under the National Authority's system (see Note for examples for the USA's system);
 - the repair has clearly been classified as minor or non-major;
 - the repair has been developed from data acceptable to the National Aviation Authority.
 - b) For the acceptance of major repair data from an organisation under the oversight of the National Aviation Authority of USA, Canada and Brazil, maintenance organisations should ensure that the repair has received the approval of the

National Authority (USA, Canada, Brazil) in whatever form is accepted in that state (e.g. FAA form 8110-3 for the USA, Repair Design Certificate in Canada). It should be noted that EASA Decisions 2004/02/CF, 2004/03/CF and 2004/04/CF restrict immediate EASA approval of major repairs (i.e. without further validation) to those issued by the TC holder and in some cases the STC holder.

The decision 2004/04/CF has subsequently been amended by ED Decision 2007/001/C with effect from 1 April 2007, that effectively allows repair design not related to a critical part of a product approved under the FAA system to be automatically approved by EASA, not just those coming from the TC or STC holder. Guidance material is provided on this Decision on the EASA website, see http://www.easa.europa.eu/home/intl_appro_en.html under the section covering the USA in a document with the title "Guidance on the EASA approval status/applicable approval processes for repair design data developed by US organisations/persons for use on EU-registered aircraft".

For repair data coming from countries other than the EU, USA, Canada or Brazil, Part-21 GM 21A.431(a) provides a flow chart for repairs coming from outside the EU. Effectively the repair can only be approved by the Agency, or if classified minor, by an appropriately approved Part-21 DOA organisation.

NOTE: Those eligible to generate repair data under the FAA system (i.e. acceptable source for minor repair data):

- a) Delegation Option Authorization (DOA). A manufacturer holding a current type certificate and production certificate issued under standard procedures that is authorised by the FAA to conduct type, production, and airworthiness certification functions in accordance with 14 CFR part 21, subpart J.
- b) Designated Alteration Station (DAS). A repair station, air carrier, or manufacturer authorised by the FAA to issue Supplemental Type Certificates in accordance with 14 CFR part 21, subpart M.
- c) SFAR 36. A repair station, air carrier, or commercial operator authorised to develop and use major repair data that are not specifically approved by the FAA Administrator in accordance with SFAR 36. (SFAR 36 is found in the regulations at the beginning of 14 CFR part 121.)
- d) Designated Engineering Representative (DER). DERs have various approval types, and can either work independently or as part of a larger design organisation.
- e) Type Certificate Holder. This would include US manufacturers such as Boeing, Cessna etc. if not covered under a DOA.
- f) US Operators. This is not seen as a common option for obtaining minor repair data within Europe. Within the FAA system some US operators, if they have been appropriately approved, are granted the authority to classify and design minor repair data. The approval status of the operator would need to be established prior to acceptance and implementation of the repair design.