CIVIL AVIATION AUTHORITY
of the Cayman Islands

Cayman Island Aviation Circular

Aircraft Parts

CIAC	**19-12**
Issue	**02**
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GENERAL

Cayman Islands Aviation Circulars are issued to provide advice, guidance and information on standards, practices and procedures necessary to support Overseas Territory Aviation Requirements. They are not in themselves law but may amplify a provision of the Air Navigation (Overseas Territories) Order or provide practical guidance on meeting a requirement contained in the Overseas Territories Aviation Requirements

RELATED REQUIREMENTS

This Circular relates to OTAR Parts 21, 39, 43, and 145.

CHANGE INFORMATION

Issue 2.

ENQUIRIES

Enquiries regarding the content of this Circular should be addressed to Manager Airworthiness CAACI

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1 Introduction

Misrepresented or unapproved scrap parts and materials that have been fitted to aircraft or included in aircraft components is a significant problem worldwide and has been the cause of several incidents and accidents. This Circular provides information and guidance on the requirements for the reporting of unapproved parts, guidelines for the proper usage of parts removed from aircraft and guidelines for the disposal of scrapped parts to assist in preventing their subsequent unapproved use in aircraft.

2 Identification and reporting of misrepresented / unapproved parts

Misrepresented/unapproved scrap parts and materials should not be received into an active stores inventory. The following are examples of conditions to be alert for when receiving parts:

(a) Parts showing signs of rework which were purchased as 'new';
(b) Used parts showing signs of unapproved or inappropriate repair;
(c) Parts with poor workmanship;
(d) Parts with signs of rework in the area of the part data plate, part number or serial
(e) Used parts lacking verifiable documentation of history and approval;
(f) Parts with prices that are 'too good to be true';
(g) Questionable part numbers, fraudulent or suspicious TSO, ETSO or FAA PMA markings and/or re-identification, stamp-overs or vibro-etching on the data plate;
(h) Parts delivered with photocopied or missing release certificates (ref OTAR Part 21 Subpart K);
(i) Parts with a finish that is inconsistent with industry standards (e.g. discolouration, inconsistencies, resurfacing);
(j) Parts purchased as new but with release documentation reflecting a status other than new;
(k) Parts with poor documentation exhibiting incomplete or inconsistent part identity information;
(l) Intact 'scrap' unsalvageable parts offered in bulk weight for prices higher than for mutilated parts with identical weight and content.

3 Notification of misrepresented/unapproved parts

3.1 Users of aircraft parts and material are reminded that suspected misrepresented/unapproved parts should be reported to the CAACI, through the Mandatory Occurrence Reporting Scheme as defined in OTAR Part 13.

3.2 To assist in tracing misrepresented/unapproved parts and materials, persons raising an MOR should as far as possible provide the following information on their report:

(a) The name of the suspected unapproved part;
(b) Part number, or any other number on the part;
(c) Serial number;
(d) List the next higher assembly that the suspected unapproved part is assembled into and list the part number, if known;
(e) Quantity of suspected unapproved parts found or identified;
(f) Make and model number of the aircraft or component that the suspected unapproved part is applicable to;
(g) The identification of the commercial source of the suspected unapproved part. If the part is identified with the Part Manufacturer or Distributor marking this should be quoted;
(h) Describe any pertinent facts relating to the suspected unapproved part and identify where the part may be inspected (provide photos, invoices etc. if available);
(i) The date the suspected unapproved part was discovered;
(j) Name and address in full or the location where suspected unapproved part(s) was discovered.

4 Used parts removed from serviceable aircraft

4.1 Serviceable aircraft parts removed from an aircraft may be issued with an acceptable release certificate by an appropriately CAACI approved and rated OTAR Part 145 maintenance organisation in accordance with OTAR Part 145.115 subject to the compliance with the following:

(a) The donor and recipient aircraft must be on the Overseas Territories register.
(b) The donor aircraft must be in an airworthy condition or in a controlled maintenance environment undergoing a scheduled maintenance check.
(c) The aircraft must have a valid certificate of airworthiness.
(d) The donor and recipient aircraft must be from the same operator's fleet, or be managed for continued airworthiness management by the same OTAR Part 39 Approved Organisation.
(e) The OTAR Part 145 Organisation should ensure that an appropriately qualified person removed the part from the aircraft using approved data.
(f) The part may only be considered eligible if the last flight operation with the part fitted revealed no faults on that part or related system.
(g) The part should be inspected for satisfactory condition including, in particular, damage, corrosion or leakage and compliance with any additional manufacturer's maintenance instructions and the requirements of the aircraft's maintenance programme.
(h) The aircraft records should be reviewed for any unusual events that could affect the serviceability of the part such as involvement in accidents, incidents, heavy landings or lightning strikes. An CAACI acceptable release certificate should not, in any circumstances, be issued if it is suspected that the part has been subjected to extremes of stress, temperature or immersion, which could affect its operation.

(i) A maintenance history record to include flight hours/cycles/landings as applicable should be available for all used serialised and life limited parts including details of scheduled maintenance requirements derived from the donor aircraft maintenance programme and maintenance planning schedule.
(j) Compliance shall be established with any continued airworthiness instructions for applicable modifications (changes) and repairs for the robbed component/part by incorporating the continued airworthiness requirements into the recipient's aircraft maintenance programme and maintenance planning schedule.
(k) The flight hours/cycles/landings as applicable of any service life limited parts including time since overhaul should be established and the details of service life remaining should be transferred to the recipient aircraft records.
(l) Compliance with known applicable Airworthiness Directives should be established and maintained particularly where non terminating action had previously been taken.
(m) Where applicable, mandatory reporting such as CPCP and SSID records shall be transferred including any pending actions associated with a modification or supplemental inspection regime.
(n) A modification status review shall be undertaken of the recipient aircraft and component/part to ensure eligibility for fitment.
(o) Consideration shall be given to undertaking a component/system functionality test.
(p) Under no circumstances shall a donor aircraft be fitted with an unserviceable component/part in order to make a recipient aircraft serviceable.
(q) Components/parts shall not be removed for the purpose of storage pending the identification of a suitable recipient aircraft.

4.2 Subject to the satisfactory compliance with items a) to q) above an acceptable Airworthiness Release Certificate may be issued and should contain the following information:

(a) The details pertaining to the donor aircraft (Type, Registration, Serial number etc.).
(b) When the last major maintenance event was carried out and by whom.
(c) 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.
(d) A list of all airworthiness directives, repairs or modifications known to have been incorporated. If no airworthiness directives, repairs or modifications are incorporated then this should be stated.
(e) Detail of life used for service life limited parts being any combination of fatigue, overhaul or storage life.
(f) For any part having its own maintenance history record, reference to the particular maintenance history record.
(g) The location of the donor and recipient aircraft.
(h) The component/part description, part number and serial number.
(i) Component/part original release certificate number and the State of Authority if details available.
(j) Details pertaining to the recipient aircraft (Type, Registration, Serial number etc.)
(k) Remarks (installation requirements, functional testing, adjustment, modification, life limitation, mandatory compliance, inspection, reactivation etc.).
(l) Maintenance manual references.

(m) The service release certificate shall include the following statement “The work recorded has been carried out in accordance with the Air Navigation (Overseas Territories) Order 2013 and in respect of that work the aircraft or component is fit for release to service”.
(n) The signature of the certifying staff, aircraft maintenance organisation approval or authorisation number and date of entry.

5 Disposal of scrap aircraft parts and materials

5.1 Disposed scrap parts and materials may, in some instances, reappear for sale in the serviceable parts inventories within the aviation community. Such misrepresentation of the status of parts and material and the practice of making these items appear serviceable could result in the use of non-conforming parts and material. The owner’s/operator’s permission should be sought prior to the disposal of scrap parts and materials. Caution should therefore be exercised to ensure that the following types of parts and materials are disposed of in a controlled manner that does not allow them to be returned to service:

(a) Parts with non-repairable defects.
(b) Parts that are outside the specifications set by the approved design and cannot be brought into conformance with the applicable specifications.
(c) Parts and materials where further processing or rework cannot make them eligible for certification.
(d) Parts subjected to rework or unacceptable modification that is irreversible.
(e) Life-limited parts that have reached or exceeded their life limits or have missing or incomplete records.
(f) Principal Structural Elements removed from a high-cycle aircraft for which conformity cannot be accomplished by complying with the mandatory requirements applicable to ageing aircraft.

5.2 Persons disposing of scrap parts and material should, when appropriate, mutilate those parts and materials prior to disposal. Mutilation should be such that the parts and materials become unusable for their original intended use. It should also not be possible for them to be reworked or camouflaged to provide the appearance of being serviceable for example by re-plating, shortening and re-threading long bolts, welding, straightening, machining, cleaning, polishing or repainting.

5.3 Multilation may be accomplished by one or a combination of the following procedures, but not limited to:

(a) Grinding;
(b) Burning;
(c) Removal of a major lug or other integral feature;
(d) Permanent distortion of parts;
(e) Cutting a hole with cutting torch or saw;
(f) Melting;
(g) Sawing into many small pieces.

5.4 The following are examples of mutilation that are often less successful since they may not be consistently effective:

(a) Stamping (such as a stamped ‘R’ on the part);
(b) Spraying with paint;

(c) Hammer marks;
(d) Identification by tag or markings;
(e) Drilling small holes;
(f) Sawing in two pieces since it may be possible to attempt to restore parts cut in two pieces in such a manner that the mutilation proves difficult to detect.

5.5 For the disposal of scrap aircraft parts and materials for legitimate non-flight uses, such as training and education, research and development, or non-aviation applications mutilation is not appropriate and the following methods should be used to prevent misrepresentation:

(a) Permanently marking or stamping the parts, subparts and material as ‘NOT SERVICEABLE’. Ink stamping is not an acceptable method;
(b) Removing original part number identification;
(c) Removing the data plate;
(d) Maintaining a tracking system, by serial number or other inividualised data, to record transferred scrap aircraft parts and material, and
(e) Include written instructions concerning disposition and disposal of such parts and materials in any agreement or contract transferring the parts and materials.