



GHANA
CIVIL AVIATION AUTHORITY

ADVISORY CIRCULAR

AC 05-001

DISPOSITION OF UNSALVAGEABLE PARTS & MATERIALS

SECTION 1 POLICY & GENERAL INFORMATION

1.1 PURPOSE

- A. This advisory circular (AC) provides information and guidance to persons involved in the sale, maintenance or disposal of aircraft parts.
- B. It provides information and guidance to prevent unsalvageable aircraft parts and materials from being sold as serviceable parts and materials.
- C. It provides one means of complying with procedures for control of rejected parts and materials.

1.2 STATUS OF THIS ADVISORY CIRCULAR

This AC is an original issuance.

1.3 APPLICABILITY

- A. This advisory circular is applicable to all aircraft registered in Ghana and the parts that are installed on those aircraft.
- B. It is also applicable to the performance standards for persons performing maintenance and signing maintenance release for those parts.

1.4 RELATED REGULATIONS

The following regulations are directly applicable to the guidance contained in this advisory circular—

- GCADs Part 5, Aircraft and Component Original Certificate
- GCADs Part 5, Continuing Airworthiness of Aircraft

1.5 RELATED PUBLICATIONS

For further information on this topic, individuals, organizations and other entities are invited to consult the following publications—

- 1) Ghana Civil Aviation Authority (GCAA)
 - ◆ AC 05-004, Eligibility & Traceability of Replacement Parts.

Copies may be obtained from the GCAA Safety Regulations Department.

- Advisory Circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.
- Where a regulation contains the words “prescribed by the Authority,” the AC may consider to “prescribe” a viable method of compliance, but status of that “prescription” is always “guidance” (never a regulation).

- ◆ AC 05-005, Handling of Suspected Unapproved Parts.
- 2) International Civil Aviation Organization (ICAO)
 - ◆ Annex 8, Airworthiness of Aircraft
 - ◆ Document 9760, Airworthiness Manual

Copies may be obtained from Document Sales Unit, ICAO, 999 University Street, Montreal, Quebec, Canada H3C 5H7.

1.6 DEFINITIONS & ACRONYMS

- A. The following definitions apply to this advisory circular—
- 1) **New.** A product, accessory, part, or material that has no operating time or cycles.
 - 2) **Surplus.** This term is used to describe a product, assembly, part, or material that has been released as surplus by the military, manufacturers, owners/operators, repair facilities, or any other parts supplier. These products should show traceability to an approved manufacturing procedure.
 - 3) **Overhauled.** This term is used to describe an airframe, aircraft engine, propeller, appliance, or component part using methods, techniques, and practices acceptable to the GCAA, which has undergone the following—
 - (a) Has been disassembled, cleaned, inspected, repaired when necessary, and reassembled to the extent possible.
 - (b) Has been tested in accordance with approved standards and technical data, or current standards and technical data acceptable to the GCAA (i.e., manufacturer's data), which have been developed and documented by the holder of one of the following—
 - (i). TC.
 - (ii). Supplemental Type Certificate (STC), or material, part, process, or appliance approval.
 - (iii). PMA.
 - 4) **Rebuilt.** This term is used to describe an aircraft, airframe, aircraft engine, propeller, or appliance, using new or used parts that conform to new part tolerances and limits or to approved oversized or undersized dimensions that has undergone the following—
 - (a) Has been disassembled, cleaned, inspected, repaired as necessary, and reassembled to the extent possible.
 - (b) Has been tested to the same tolerances and limits as a new item.
 - 5) **Appropriately Certificated Person.** As related to return to service after maintenance, preventative maintenance, rebuilding, or modification, can include the holder of a—
 - (a) **Mechanic certificate.** May perform maintenance, preventative maintenance, and modifications as provided in GCADs Part 5.
 - (b) **Inspection authorization.** May inspect and approve for return to service any aircraft or related part or appliance (except aircraft maintained in accordance with a continuous airworthiness program under GCADs Part 09 after a major repair or modification as defined by the regulations, if the work was done in accordance with technical data approved by GCAA. Perform an annual, or supervise a progressive inspection according to GCADs Part 5.
 - (c) **Approved Maintenance Organization** under GCADs Part 5, may perform maintenance, preventative maintenance, or modifications as provided in that regulation.
- B. The following acronyms are used in this advisory circular—

- 1) **AD** – Airworthiness Directive
- 2) **AMO** – Approved Maintenance Organization
- 3) **C of A** – Certificate of Airworthiness
- 4) **C of R** – Certificate of Registration
- 5) **ICAO** – International Civil Aviation Organization
- 6) **PAH** – Production Approval Holder
- 7) **PC** – Production Certificate
- 8) **PMA** – Part Manufacturer Approval
- 9) **STC** – Aircraft Supplemental Type Certificate
- 10) **SUP** – Suspected Unapproved Part
- 11) **TC** – Aircraft Type Certificate

SECTION 2 INFORMATION RELEVANT TO UNSALVAGEABLE PARTS

2.1 BACKGROUND

- A. It is common practice for possessors of aircraft parts to dispose of unsalvageable parts and materials by selling, discarding, or transferring such items.
- B. In some instances, these items have reappeared for sale and in the active parts inventories of the aviation community.
- C. Misrepresentation of the status of parts and material and the practice of making such items appear serviceable has resulted in the use of unsalvageable nonconforming parts and materials.

2.2 TYPES OF PARTS & MATERIALS THAT MAY BE MISREPRESENTED

- A. Persons disposing of unsalvageable aircraft parts and materials should consider the possibility of such parts and materials later being misrepresented and sold as serviceable parts and materials.
- B. Caution should be exercised to ensure that the following types of parts and materials are disposed of in a manner that does not allow them to be returned to service—
 - 1) Parts with non-repairable defects, whether visible or not to the naked eye.
 - 2) Parts that are not within the specifications set forth by the approved design, and cannot be brought into conformance with applicable specifications.
 - 3) Parts and materials for which further processing or rework cannot make them eligible for certification under a recognized certificate holder's system.
 - 4) Parts subjected to unacceptable modification or rework that is irreversible.
 - 5) Life-limited parts that have reached or exceeded their life limits, or have missing or incomplete records.
 - 6) Parts that cannot be returned to airworthy condition due to exposure to extreme forces or heat.
 - 7) Principal structural elements (PSE) removed from a high cycle aircraft for which conformity cannot be accomplished by complying with the applicable aging aircraft airworthiness directives.

2.3 PREVENTING MISREPRESENTATION OF UNSALVAGEABLE PARTS

- A. Persons disposing of unsalvageable aircraft parts and materials should, when appropriate, mutilate those parts and materials prior to release.
- B. Mutilation should be accomplished in such a manner that the parts become unusable for their original intended use;
- C. Mutilated parts should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by re-plating, shortening and rethreading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.
 - 1) Mutilation may be accomplished by one or a combination of the following procedures, but is 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.
 - 2) The following procedures are examples of mutilation that are often less successful because they may not be consistently effective—
 - (a) Stamping (such as a stamped "R" on a part);
 - (b) Spraying with paint; (c) Hammer marks; (d) Identification by tag or markings; (e) Drilling small holes;
 - (f) Sawing in two pieces.

Persons who rework unsalvageable parts and materials may be highly skilled technicians and have been known to re-join parts cut in two pieces in such a manner that the mutilation proves difficult to detect.

SECTION 3 RELEASE FOR LEGITIMATE NON-FLIGHT USE

Persons disposing of unsalvageable aircraft parts and materials may choose to release those parts for legitimate non-flight uses, such as for training and education, research and development, or for non-aviation applications.

- In such instances, mutilation may not be appropriate.

3.1 ACCEPTABLE METHODS

The following methods should be used to prevent misrepresentation—

- 1) Permanently marking or stamping the parts, subparts, and material as "NOT SERVICEABLE."
- 2) Removing original part number identification;
- 3) Removing data plate identification;

Ink stamping is not an acceptable method.

- 4) Maintaining a tracking or accountability system, by serial number or other individualized data, to record transferred unsalvageable aircraft parts and materials; and
- 5) Including written quality assurance procedures concerning disposition and disposal of such parts and materials in any agreement or contract transferring such parts and materials.

3.2 ESTABLISH SECURE AREAS

Organizations handling unsalvageable or expired life-limited aircraft parts and materials should establish secure areas in which to—

- 1) Segregate such items from active serviceable inventories and
- 2) Prevent unauthorized access.

- ◆ Caution should be exercised to ensure that these parts and materials receive the appropriate final disposition.

Unsalvageable or expired life-limited parts and materials should not be released to any person or organization who may end up placing the parts and *materials back in actual use, due to the criticality of part and material ailure and the potential safety threat.*

SECTION 4 RECEIVING MISREPRESENTED UNSALVAGEABLE PARTS

A. All purchasers of aircraft parts and materials should ensure that misrepresented unsalvageable parts and materials are not received into active inventory.

B. The following are examples of conditions to be alert for when receiving parts—

- 1) "New" parts showing signs of rework.
- 2) Used parts showing signs of unapproved or inappropriate repair.
- 3) Parts with poor workmanship or signs of rework in the area of the part number or serial number inscription.
- 4) Used parts lacking verifiable documentation of history and Authority approval.
- 5) Parts with prices "too good to be true."
- 6) Questionable part numbers, fraudulent or suspicious Technical Standard Order or Parts Manufacturer Approval markings and/or re-identification, stopovers or vibroetching on the data plate.
- 7) Parts delivered with photocopied or missing maintenance release tags.
- 8) Parts with a finish that is inconsistent with industry standards (e.g., discoloration, inconsistencies, resurfacing).
- 9) New parts sold with maintenance release tags reflecting a status other than new.
- 10) Parts with poor documentation exhibiting incomplete or inconsistent part identity information.
- 11) Intact "scrap" unsalvageable parts offered in bulk weight for prices higher than for mutilated parts with identical weight and content.



Suspected unapproved parts should be reported to the GCAA via the procedures found in AC 04-005,

End of Advisory Circular

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