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1. PURPOSE

- A. This Advisory Circular (AC) provides information and guidance to the Ethiopia aviation community for detecting suspected unapproved parts (SUP) and reporting them to the ECAA.
- B. In addition, this AC provides guidance for ECAA Airworthiness Inspectors to ensure that AOC Holders, & Air Operators have procedures in place for the detection of unapproved parts and are appropriately dealt with when discovered during inspection and surveillance activities.

2. APPLICABILITY

This Advisory Circular applies to owners and operators of aircraft registered in Ethiopia, and to personnel and organizations maintaining such aircraft.

3. BACKGROUND

- A. ICAO and various civil aviation authorities have intensified efforts to educate its inspector staffs and the public regarding the potential safety threat posed by aeronautical parts that do not meet applicable design, manufacturing, and maintenance requirements.
- B. In order to help ensure compliance with the ECARAS the ECAA will perform surveillance activities surrounding receiving inspection systems to ensure the detection of unapproved parts.

4. DESCRIPTION

4.1 DEFINITIONS

- A. **Approved** means the following for purpose of this AC. A part installed on a type-certificated product is "approved" if installation for that part complies with all applicable maintenance and operating requirements. A part in inventory is "approved" if it has been produced in compliance with the applicable production requirements, or otherwise is acceptable for installation. A repaired or modified part is "approved" if it has been repaired or modified in accordance with the applicable maintenance requirements, and a life-limited part is approved if it has remaining useful life. All other parts are considered to be "unapproved."

- B. **Suspected Unapproved Part (SUP)**. A part, component, or material that is suspected of not

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meeting the requirements of an “approved part.” A part that, for any reason, a person believes is not approved. Reasons may include findings such as different finish, size, and color, improper (or lack of) identification, incomplete or altered paperwork, or any other questionable indication.

NOTE: An “approved part” which is used in the wrong application should be addressed as a potential ECARAS violation, however it is not considered to be an SUP.

C. Unapproved Part. A part that does not meet the requirements of an “approved part” (refer to definition of “approved parts” in paragraph C.). This term also includes parts that may fall under one or more of the following categories:

- (1) Parts shipped directly to the user by a manufacturer, supplier, or distributor, where the parts were not produced under the authority of (and in accordance with) a production approval for the part (e.g., production overruns where the parts did not pass through an approved quality system).

NOTE: This includes parts shipped to an end user by a Production Approval Holder’s supplier who does not have direct ship authority from the PAH.

- (2) New parts that have passed through a PAH’s quality system which do not conform to the approved design/data.

NOTE: Do not report parts damaged due to shipping or warranty issues as an SUP.

- (3) Parts that have been intentionally misrepresented, including counterfeit parts.

4.2 OWNER/AMO/OPERATORS RESPONSIBILITIES:

A. Aircraft owners, operators and maintenance organizations shall ensure that appropriate steps are taken to preclude the introduction of unapproved parts into inventories or their installation on aircraft by establishing an incoming/receiving inspection system to ensure that only approved parts and materials are received into inventories. Procedures shall include the following:

- (1) Verification that the parts received was produced under some type of State of Design or Manufacture-approved process.
- (2) Evidence of a maintenance release or return to service record entry from an approved AMO or equivalent acceptable by the authority.
- (3) Parts produced for which a replacement time, inspection interval, or related procedure is specified in the Airworthiness Limitations section must have been permanently marked with part number and serial number (or equivalent) required by the State of Design.
- (4) Review of shipping tickets, packing slips, purchase orders, or markings identifying the approved manufacturer of that part/material.
- (5) FAA Form 8130-3, Airworthiness Approval Tag; or

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- (6) EASA Form One; or
- (7) ECAA FORM:AWS007; or

- (8) Authorizing document containing a declaration that the part was produced under the production approval.
- (9) Certifications for standard parts (such as bolts and nuts) or other evidence that they conform to established industry specifications.

- B.** AOC holders shall establish a suitable system/plan for the removal of unapproved parts found in inventories or installed on aircraft by the following means:
 - (1) Establish a written system/plan in the appropriate section of the carrier's procedures manual; and
 - (2) Parts listed in the CAA approved Minimum Equipment List (MEL) procedures may be considered inoperable and deferred with the established MEL procedures.
- C.** Removal of parts for which approval cannot be established. A system/plan should be established with a procedure for segregating, evaluating, and/or removal of part(s) the status which is not apparent. This will allow the operator to continue to operate the aircraft until such time the part is replaced, repaired, or a determination is established the parts are approved.

4.3 DETECTION PROCEDURES

- A.** The airworthiness of aeronautical products would be in question if the design and quality of the parts are unknown. Positive identification of unapproved parts can be difficult if the parts display characteristics similar to that of an “approved part.” The following guidelines offer a means by which “approved parts” (and their sources) may be assessed.
- B.** Procurement process. A procedure to prevent procurement of unapproved parts should be established prior to purchasing parts and materials for installation in type certificated products. This procedure should include the following as a minimum:
 - (1) Methods to establish qualified suppliers who are authorized to manufacture and distribute parts they supply.
 - (2) Criteria to identify and screen potential unapproved parts suppliers. The criteria should include the following considerations:
 - (a) The quoted price or the price advertised in trade magazines is significantly lower than the price quoted by other suppliers of the same part.
 - (b) A delivery schedule that is significantly shorter than that of other suppliers of the same part when existing stocks are exhausted.

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- (c) The inability of a supplier to provide drawings, specifications, overhauls manuals, or substantiating data demonstrating the conformity of the part's repair/overhaul.
- (d) A distributor and/or supplier's inability or unwillingness to provide substantiating documentation that the part was produced pursuant to an NAA's approval; or inspected, repaired, overhauled, preserved or modified in accordance with the regulations.
- (e) Sales quotes or discussions that create the perception that an unlimited supply of parts, components, or material are available to the end user.

C. Acceptance procedures. These procedures should include a means of identifying SUPs during the receiving inspection and prevent their acceptance. Suggested areas to be addressed include the following:

- (1) Confirm the packaging of the part identifies the supplier or distributor, and is free from alteration or damage.
- (2) Verify that the actual part and delivery receipt reflect the same information as the purchase order regarding part number, serial number, and historical information, if applicable.
- (3) Verify that the identification on the part has not been tampered with. For example, serial number stamped over, label or part/serial numbers improper or missing, vibro-etch or serial numbers located at other than the normal location.
- (4) Ensure that the shelf life and/or life limit has not expired, if applicable.
- (5) Conduct a visual inspection of the part and supporting documents to the extent necessary to determine if the part is traceable to an NAA's approved source.
- (6) Evaluate any visible irregularities. For example, altered or unusual surface, absence of required plating, evidence of prior usage, scratches, new paint over old, attempted exterior repair, pitting or corrosion.
- (7) Conduct random sampling of standard hardware packaged in large quantities in a manner which corresponds to the type and quantity of the parts.
- (8) Segregate parts of questionable nature and attempt to resolve issues regarding questionable status of part. For example, obtain necessary documentation if inadvertently not provided, or determine if irregularities are a result of shipping damage and handle accordingly.

Note: Rejected items should be notified to ECAA.

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D. Supplier evaluations. Procedures to conduct audits of suppliers on a scheduled basis, to ensure that Suppliers have established and continue to maintain the quality system specified in purchase orders, should be developed. The following are examples of elements that should be included in an audit program:

- 1) Continued validity of NAA's approval, if applicable
- 2) Design data control, to include latest revision, if applicable
- 3) Supplier control
- 4) Material handling/control
- 5) Manufacturing/assembly controls
- 6) Tool and gauge control
- 7) Tests and inspections
- 8) Records.

4.4 REPORTING PROCEDURES

- A. Reports of SUP may originate from numerous sources such as incoming/receiving inspections, audits, facility surveillance, complaints, congressional inquiries, accident, or incident investigations, or various service difficulty reports.
- B. When unapproved parts are suspected, it is important to promptly report them to the CAA.
- C. To assist in reporting SUPs, the authority has produced an ECAA FORM:AWS007 Suspected Unapproved Parts Notification. This form provides a standardized format which facilitates the submission of complete data and reduces the time and cost associated with processing the reports. The details on ECAA FORM: AWS007 may be entered by either machine/computer printing or by hand using block capitals.
- E. An electronic version of ECAA FORM: AWS007 is available for download via the Internet from ECAA web site (<http://www.ecaa.gov.et>). A duly completed form can be submitted electronically via the Internet to the Authority.
- F. When reporting a SUP, operator should provide as much descriptive information as possible on the part. Any attachment, such as photographs and sketches of the suspected part, are also appreciated. However, you should not submit any physical parts to the Authority.
- F. The use of abbreviations should be kept to a minimum, unless used universally (for example, NGV, etc.).

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G. When discover a SUP, operator should complete and forward the form immediately to the Authority by any of the following means:

(1) By Mail

Mark 'IN-CONFIDENCE' if confidentiality is required and mail.

ECAA FORM: AWS007 on the following address:

Ethiopian Civil Aviation Authority

P. o. Box 978

Addis Ababa-Ethiopia

(Attention: Aircraft Registration and Airworthiness Certification Directorate)

(2) By Fax or e-mail

When confidentiality is not required, you can Fax the completed ECAA FORM: AWS007 to the following number:

Fax: 2510116650281

E-mail: ecaa.airworthiness@ethionet.et

(Attention: Aircraft Registration and Airworthiness Certification Directorate)

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 Director General

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Approved and