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AERONAUTICAL INFORMATION CIRCULAR

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AIRWORTHINESS

MAINTENANCE

DETECTING AND REPORTING SUSPECTED UNAPPROVED PARTS

1. GENERAL

1.1. Purpose

The purpose of this circular is to provide information and guidance to the aviation community for detecting suspected unapproved parts (Bogus parts) and reporting them to the NCAA Attached is the form FSS-AIR-FORM 085, Suspected Unapproved Parts Report, which serves as a standardised means of reporting.

1.2. References

Parts 21.01.7, 43 and 145 refer.

2. REQUIREMENTS

The Executive Director of the NCAA requires all operators, aircraft maintenance organisations and aircraft maintenance engineers to report any Suspected Unapproved Part (Bogus Parts) or Component which may jeopardise the safety of the aircraft, within 48 hours from the moment the Part or Component, to which the report relates, has been identified.

3. DEFINITIONS

Note:

Some of the following definitions do not appear in the Regulations, although they are frequently used in the text of various Parts of the Regulations.

Approved Part: A part which is produced in accordance with the means outlined in NAMCAR Part 21, is maintained in accordance with the applicable regulations, and meets applicable design standards.

If the part is to be considered eligible for installation on a Type Certified Product (typically an aircraft, aircraft engine, or propeller), it must also contain documentation that supports these requirements.

Bogus part: means a part or material, intended for installation in a type certificated product, which has not been manufactured according to approved procedures, or does not conform to an approved

type design or established civil aviation industry or Namibian civil aviation specifications, and includes :

a. a part which has been manufactured, reclaimed or reconditioned and marked by an unauthorised source and provided with documents which falsely indicate that the part is a genuine part and conforms to the specifications contained in a manufacturer's authorised Illustrated Parts Catalogue;
b. a part which has not been maintained, overhauled or repaired in accordance with approved airworthiness data or the provisions of the Regulations, or which has been maintained, overhauled or repaired by persons who are not authorised to perform and certify such maintenance, overhaul or repair and
c. a part which is directly supplied to a purchaser by a manufacturer, supplier or distributor, who does not hold an appropriate production certificate for the part and who has not been authorised by the type certificate holder to directly supply such part to the purchaser;

Counterfeit Part: A part made or modified so as to imitate or resemble an 'approved part' without authority or right, and with the intent to mislead, intentionally falsify or defraud by passing the imitation as original or genuine.

Suspected Unapproved Part (SUP): A part, component, or material that is suspected of not meeting the requirements of an 'approved part'. A part that, for any reason, may not be 'approved'. Reasons may include findings such as a different finish, size, colour, improper or lack of identification, or incomplete or altered paperwork.

In other words, a SUP is a temporary designation for a part that cannot yet be confirmed as approved or unapproved.

4. INTRODUCTION

4.1. The basis for the airworthiness of an aeronautical product is that the product must continue to conform to an approved design and be in a condition for safe operation. In order for the product to continue to be airworthy, any replacement or modification parts installed must also conform to the product's type design.
4.2. Part 21, Certification Procedures for Products and Parts, requires aircraft parts to meet certain conditions to be considered acceptable and Part 43, General Maintenance Rules, requires each installer to use acceptable parts. Part 145, Maintenance Organisations, requires an Aircraft Maintenance Organisation to establish procedures to ensure the acceptable quality of parts and assemblies.
4.3. Recent developments in the USA and Europe have highlighted those Airworthiness Authorities' problems with unacceptable parts in the Aviation Industry. Investigations by the Namibian Civil Aviation Industry have also shown that the Namibian Industry is not immune to the problems of unacceptable parts.
4.4. Initially the unacceptable parts were branded as "Bogus" parts, but this was later changed to Suspected Unapproved Parts (SUPs).
4.5. This AIC provides guidance on determining the acceptability of parts for use on aircraft operating in Parts 91, 121, 127 and 135.

5. DETECTION PROCEDURES

5.1. Organisations involved in the manufacture, distribution or maintenance of aeronautical products should ensure that their quality control systems include procedures for detection

of unapproved parts. The following guidelines offer a means by which 'approved parts' and their sources may be assessed.

5.2. Procurement process

5.2.1. Include the following considerations:

i. The quoted price or the price advertised in trade magazines is significantly lower than the price quoted by other suppliers of the same part;

ii. A delivery schedule that is significantly shorter than that of other suppliers of the same part when existing stocks are exhausted;

iii. The inability of a supplier to provide drawings, specifications, overhaul manuals, or substantiating data demonstrating the conformity of the part's repair/overhaul;

iv. A distributor and/or supplier's inability or unwillingness to provide substantiating documentation that the part was produced pursuant to a National Aviation Authority (NAA's) approval; or inspected, repaired, overhauled, preserved or modified in accordance with the regulations; and

v. Sales quotes or discussions that create the perception that an unlimited supply of parts, components, or material is available to the end user.

5.3. Acceptance Procedures

5.3.1. These procedures should include a means of identifying SUPs during the receiving inspection and prevent their acceptance. The following suggested actions are provided as a guide:

a. Confirm the packaging of the part identifies the supplier or distributor, and is free from alteration or damage;

b. 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;

c. 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;

d. Ensure that the shelf life and/or life limit has not expired, if applicable;

e. 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. The following are examples of positive forms of identification:

i. FAA Form 8130-3,

ii. EASA Form 1,

iii. Approved internal organisation maintenance records or release documents with approval for return to service,

iv. Appropriate TSO markings,

v. Appropriate PMA markings,

vi. Etc.

f. 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;

g. Conduct random sampling of standard hardware packaged in large quantities in a manner which corresponds to the type and quantity of the parts; and
h. Segregate parts of questionable nature and attempt to resolve issues regarding questionable status of each 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 the NCAA as required by Parts 43 and 145.

5.4. Supplier evaluations

5.4.1. 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:

a. continued validity of NAA's approval, if applicable;
b. design data control, to include latest revision, if applicable;
c. supplier control;
d. material handling/control;
e. manufacturing/assembly controls;
f. tool and gauge control;
g. tests and inspections; and
h. Records.

5.5. Summary guidance

5.5.1. Regulations require that type-certificated products conform to their type design. Aircraft owners, operators, manufacturers, maintenance organisations, and parts suppliers and distributors are encouraged to continually inspect their aircraft and/or parts inventories to ensure only approved part numbers are present. In the event SUPs are found, it is recommended that they be quarantined to prevent installation until a determination can be made regarding their origin and eligibility for installation.

6. REPORTING GUIDELINES

6.1. General

6.1.1. To assist in reporting SUPs, the NCAA has produced a SUP Report Form (Form FSS-AIRFORM085). This form provides a standardised format which facilitates the submission of complete data and reduces the time and cost associated with processing the reports. The details on the form may be entered by either machine/computer printing or by hand using block capitals.

6.1.2. An electronic version of the NCAA Form FSS-AIR-FORM085 is available for download via the Internet from the NCAA web site (http://www.ncaa.com.na/). A completed form can be submitted via email, fax or by hand.

6.1.3. When reporting a SUP, as much descriptive information should be provided as possible on the part. Any supporting information, such as photographs and sketches of the suspected part, is also appreciated. However, SUPs should not be physically submitted to the NCAA unless specifically requested by the NCAA.

6.1.4. The use of abbreviations should be kept to a minimum, unless the particular term is universally used, and no confusion could be caused as a result.

6.1.5. The completed form with necessary attachments can be forwarded to:
Airworthiness division
air@ncaa.na

The names of individuals or companies reporting such SUPs will not be divulged to any other party.

7. NOTIFICATION OF SUPs TO INDUSTRY

7.1. The NCAA will disseminate safety information resulting from its investigation of SUP reports.

7.2. Based on the information discovered by the SUP investigation and any other relevant information, the NCAA will determine whether the unsafe condition warrants the issuance of an Airworthiness Directive (AD) pursuant to Part 21.

7.3. If the investigation reveals that an unapproved part may exist, but an AD is not warranted, the NCAA will advise the affected individuals or organisations by direct mail or issue a Maintenance Advisory Notice (MAN) as appropriate. The Maintenance Advisory Notices will be available on the NCAA web site (http://www.ncaa.com.na).

7.4. For any additional information or any help, please contact the Manager Defect Reporting.

8. USE OF PARTS REMOVED FROM ANOTHER AIRCRAFT

8.1. A person must not replace an aircraft component in an aircraft with a part that has been removed or salvaged from another aircraft (irrespective of whether or not that aircraft is still in service) where that component has not had maintenance carried out on it, unless that person can be reasonably satisfied that the replacement part is serviceable (having regard to the records of its performance in the aircraft from which it was removed), and the part performs satisfactorily when installed in the aircraft.

9. DISPOSAL OF SCRAPPED PARTS

9.1. Parts determined to be unapproved or to have reached or otherwise exceeded their intended design lives are no longer permitted to be used for aviation purposes. Such parts are to be quarantined and rendered physically unserviceable where possible and disposed of in an appropriate manner unless otherwise advised by the NCAA.