REPUBLIC OF MAURITIUS

Department of Civil Aviation

Sir Seewoosagur Ramgoolam International Airport Plaine Magnien

Tel: 603 2000 - Fax: 637 3164 - Email: civil-aviation@govmu.org

AIRWORTHINESS NOTICE No. 01/2014

Date of original issue: 04 December 2014

Date of this revision: 14 August 2025

Issue No: 3

ENSURING AUTHENTICITY AND SERVICEABILITY OF AIRCRAFT PARTS

Preliminary note:

Airworthiness Notices (ANs) 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 AN may be considered to prescribe a viable method of compliance, but status of that “prescription” is always “guidance” (never regulation).

TABLE OF CONTENTS

	Page
1. PURPOSE	3
2. STATUS OF THIS AIRWORTHINESS NOTICE	3
3. APPLICABILITY	3
4. RELATED REGULATIONS	3
5. DEFINITIONS	3
6. BACKGROUND	4
7. APPROVED PARTS	4
8. UNAPPROVED PARTS	4
9. SUPPORTING DOCUMENTATION	6
10. PRECAUTIONS TO PREVENT INADVERTENT ACCEPTANCE OF UNAPPROVED PARTS	6
11. UNAPPROVED PARTS REPORTING	7
12. PARTS STOCKISTS AND DISTRIBUTORS	9
13. PARTS REMOVED FROM AN AIRCRAFT NO LONGER IN SERVICE	9
14. PARTS RECOVERED FROM AN AIRCRAFT INVOLVED IN ACCIDENTS	10
15. PARTS ORGINATING FROM SURPLUS UNITED STATES MILITARY STOCK.	11
16. DISPOSAL OF SCRAPPED PARTS	11
17. INVESTIGATION	12
Appendix 1 – Form DCA SUP - Suspected Unapproved Parts report	14

1. PURPOSE

This Airworthiness Notice (AN) provides guidance for detecting suspected unapproved aircraft parts and reporting them to the appropriate authorities, proper usage of parts removed from aircraft no longer in service, and the disposal of scrapped parts.

2. STATUS OF THIS AIRWORTHINESS NOTICE

The Airworthiness Notice was originally issued on 04 December 2014. The issue 2 of the AN was issued on 19 June 2025 to further elaborate on Chapter 11. Unapproved Parts Reporting. This issue 3 of the AN was issued on 14 August 2025 to link the Guidance Material from the MCAR Part 145 with regard to mutilation of components.

3. APPLICABILITY

This guidance is applicable to any member of the aviation industry, including aircraft operators, aircraft maintenance personnel and organizations, manufacturers and distributors of aeronautical products.

4. RELATED REGULATIONS

Civil Aviation Regulations 2007 as amended.

Regulation 128 of the Civil Aviation Regulations Mauritius related to mandatory reporting requires that, where a reportable occurrence takes place, a person shall submit a report to the Director of Civil Aviation in accordance with the requirements of paragraph 14 of the Sixth Schedule.

In the case of suspected unapproved parts, the Mauritius Civil Airworthiness Requirements Chapter 16.1 “Disposition Of Unsalvageable Aircraft Parts And Materials”, section 5. Suspected Unapproved Part(s), states that *“suspected unapproved parts should be reported to the DCA”.*

5. DEFINITIONS

The following definitions are used in this airworthiness notice:

Approved Part: A part that meets approved design data applicable to that part and which has been manufactured and subsequently maintained in accordance with the requirements of the State of Design, Manufacture or Registry, as applicable.

Unapproved Part: A part that does not meet the requirements of an “approved part”. This term also includes parts which have been improperly returned to service (contrary to the applicable regulations).

Airworthiness Inspector: Referred in this document are staff of the Airworthiness Division (known as Airworthiness Engineer, Senior Airworthiness Engineer and Divisional Head Airworthiness in Mauritius).

6. BACKGROUND

6.1 The need to ensure that parts installed on an aircraft meet the design specification and are serviceable is self-evident. The installation of any part failing to meet the intended design requirements degrades those requirements, leading to a degradation of airworthiness.

6.2 It is essential that, for the purposes of continuing airworthiness, a system of control exists which ensures that only parts meeting the approved design data applicable to a particular aircraft are installed on that aircraft. This circular provides guidance on the establishment of such a system.

7. APPROVED PARTS

7.1 An approved part is one whose design has been found to be acceptable to the State of Design, whose proper manufacture has been approved/accepted by the State of Registry, and that has been found to be in a condition for safe operation by the State of Registry.

Note: Parts approved pursuant to 7.1 above are eligible for installation on a specific aircraft if, and only if, they also meet the approved design data applicable to the particular aircraft they are to be installed on. For example, a seat designed and approved for 9 g forward loads is not eligible for installation on an aircraft that is required to have a seat that is dynamically tested for 16 g.

7.2 Standard parts such as fasteners are considered approved parts when they are in compliance with a national or industry accepted standard and when referenced in the type design of the particular aircraft.

7.3 Requirements for the classification and acceptance of approved components are contained on MCAR Part 145 requirement 145.A.42 Components and MCAR Part M, requirements M.A.501, and M.A.504 Segregation of components.

8. UNAPPROVED PARTS

8.1 Parts not meeting the criteria described in 7.1 and 7.2 above are considered to be unapproved. Any part not supported by the required documentation would also be considered to be unapproved. Unapproved parts also include those parts improperly returned to service, for example:

(a) parts supplied directly to the end user by a subcontractor without direct shipment authority from the design approval holder and the State of Manufacture to do so;

(b) parts maintained or approved for return to service by a person or organization not approved to do so;

(c) parts not maintained in accordance with the requirements of the applicable approved data; and

(d) parts that have reached their life limit, including, if applicable, any shelf- life limit.

8.2 A “Suspected Unapproved Part" (SUP) is defined as a product, component, or material whose origin is unknown, or suspect, or which is considered unserviceable. Essentially, it is a part that raises concerns about its suitability for use in aviation due to lack of documentation, questionable provenance, or other factors.

Key characteristics of SUPs are, for example,

- Unknown or suspect origin

  The part's source cannot be reliably determined or there are doubts about its authenticity.

- Unserviceable critical components

  The part is deemed unfit for service due to damage, wear, or other factors.

- Lack of proper documentation

  The part lacks the necessary documentation (e.g., DCA Form 1 or equivalent) to prove its compliance with regulations.

- Potential counterfeits

  The part may be a forged or fabricated version of a legitimate part.

- Parts beyond serviceability limits

  The part may have been used beyond its intended lifespan or serviceability limits.

- Parts taken from scrapyards or unlawfully removed

  These parts may have questionable histories and are difficult to trace.

- Unsalvageable parts

  Parts which should typically be classified as unsalvageable, as defined in AMC1 M.A.501(a)(3);

  (a) components with non-repairable defects, whether visible or not to the naked eye;

  (b) components that do not meet design specifications, and cannot be brought into conformity with such specifications;

  (c) components subjected to unacceptable modification or rework that is irreversible;

(d) life-limited parts that have reached or exceeded their mandatory life limitation, or have missing or incomplete records;

(e) components whose airworthy condition cannot be restored due to exposure to extreme forces, heat or adverse environmental conditions;

(f) components for which conformity with an applicable airworthiness directive cannot be accomplished;

(g) components for which maintenance records and/or traceability to the manufacturer cannot be retrieved.

The use of SUPs poses a significant safety risk to aviation as they can lead to aircraft malfunction or failure (unapproved parts may not meet the required quality standards or specifications, leading to mechanical issues or failures) and safety incidents or accidents (in extreme cases, the use of SUPs can contribute to safety incidents or even accidents).

9. SUPPORTING DOCUMENTATION

9.1 A documentation process providing written evidence of the acceptability of a part is an essential element of any system designed to ensure that only approved parts are installed on an aircraft. Such a process is intended to provide all relevant information concerning the part to which it refers sufficient to enable a potential installer to readily ascertain its status.

9.2 Such documents will contain information relating to:

(i) the authority under which it is issued;

(ii) reference identification for the purposes of traceability;

(iii) name, address and approval reference of the issuing organization;

(iv) work order, contract or invoice number;

(v) quantity, description, part number and, if applicable, serial number of the part;

(vi) relevant information concerning any life limitations, including in-service history records;

(vii) the signature and approval reference of the person issuing the document; and

(viii) whether the part is new or used.

10. PRECAUTIONS TO PREVENT INADVERTENT ACCEPTANCE OF UNAPPROVED PARTS

10.1 Documentary evidence of compliance with an approved process will not in itself provide a guarantee against the installation of unapproved parts if the original supplier of such parts knowingly provides false information or otherwise sets out to deceive.

10.2 It is always necessary to have secondary defences in place designed to give early warning of unapproved parts prior to their release for installation. The primary defence in such cases is a strong, well-informed and alert parts ordering and receiving system which, through auditing and reports, establishes a satisfactory level of confidence in its parts suppliers and which:

(a) ensures a continual correlation between parts ordered and parts received;

(b) is alert to any unauthorized alterations to supporting documentation and to any inability of the supplier to supply the required documentation;

(c) is aware if a quoted price for the part is significantly lower than that quoted by other suppliers;

(d) is aware that delivery times are significantly shorter than those quoted by other suppliers; and

(e) is aware of parts packaging methods used by approved parts manufacturers, maintenance organizations and distributors, and can detect deviations from these methods.

10.3 Organizations, particularly approved maintenance organizations and operators, should ensure that all those staff who have routine contact with parts, including especially buyers, stores staff, mechanics and certifying staff, are fully aware of the dangers posed by unapproved parts and also the likely sources. Ample warnings should be given to such staff about accessing any unapproved parts database. Approved maintenance organisations and operators will also need to ensure that their parts suppliers are fully integrated into the reporting network, and audits will be necessary among staff at intervals to ensure that all remain vigilant to the problem.

11. UNAPPROVED PARTS REPORTING

11.1 In the event that a suspected unapproved part is identified, the person, maintenance organisation, distributor or operator detecting it should immediately inform the Type Certificate holder/part manufacturer and make a report to the DCA using Form DCA SUP listed in Appendix 1 to provide the required information. The completed form shall be sent or faxed to the Director of Civil Aviation at the address listed on the front page of this AN.

11.2 Systems used by end users to report to Type Certificate holders and

regulatory agencies are intended to provide widespread warning of the detection of unapproved parts so that operators of similar equipment can be made aware as soon as possible. In view of the likely random appearance of unapproved parts, access to a reporting system should be easy and available at all reasonable times. It follows that publicity for the reporting system (and the programmes generally) should be widespread.

11.3 More information on SUP, as well as list of confirmed and under investigation SUP cases, can be found on the following links;

EASA

https://www.easa.europa.eu/en/domains/aircraft-products/suspected-unapproved-parts

UK CAA

https://www.caa.co.uk/our-work/make-a-report-or-complaint/report-something/suspected-unapproved-parts

FAA USA

https://www.faa.gov/aircraft/safety/programs/sups

Transport Canada

https://tc.canada.ca/en/aviation/aircraft-airworthiness/continuing-airworthiness/feedback-canadian-aviation-service-difficulty-reports/suspected-unapproved-parts-sups

11.4 In order to obtain as much information as possible from a report of a suspected unapproved part, it is necessary to have a standardized reporting format. Information required will include part description and from where received; part and (if applicable) serial numbers; particular colours, markings, dimensions and features common to the unapproved part which distinguish it from the genuine item; and the nature of any accompanying documentation.

11.5 At any time a part is deemed to be suspect, it and any accompanying documentation should be quarantined immediately and held until the body responsible for processing the reports is satisfied that the evidence is no longer required or until the authenticity of the part has been established.

11.6 Some reports of suspected unapproved parts will eventually turn out to be false as further information becomes available in the form of supporting documentation, etc. A successful reporting system should accept such false alarms and the wasted effort they generate in the knowledge that to discourage they might eventually lead to the suppression of a genuine report.

11.7 A relatively simple database, preferably computer driven, will be required to maintain a record and allow easy processing of reports of suspected unapproved parts. The database should be capable of interrogation such that any common thread within the reports received is readily identified by keyword access. The database itself can be a dedicated system or part of a much larger general occurrence reporting system.

11.8 In view of the international nature of the aviation industry and in particular the known international nature of the generation and distribution of unapproved parts, the ability to link national databases is obviously advantageous, the unimpeded cross-flow of information being essential in successfully combating the problem.

12. PARTS STOCKISTS AND DISTRIBUTORS

12.1 It is recognized that parts stockists and distributors have a significant influence over preventing the use of unapproved parts. Such organizations have an established commercial role of stocking or obtaining parts, often at short notice.

12.2 In airworthiness terms, the parts supplier's role is simply that of a holder of a part and its supporting data for a limited period, the part and data being passed in their entirety to the purchaser. The most effective control is exercised by the purchaser of the parts by ensuring that the part is correct and that the documentation truly reflects the status of the part. Further assurance is provided by the installer purchasing only from those suppliers having a known satisfactory record.

12.3 Parts distributors may also break down large orders of identical parts into smaller lots for shipment to end users. In this case, they should provide documentation that the parts came from the original large order and either issue a second set of airworthiness documentation, if authorised by their State regulatory authority to do so, or attach a copy of the original airworthiness documentation.

13. PARTS REMOVED FROM AN AIRCRAFT NO LONGER IN SERVICE

13.1 Aircraft withdrawn from service are often used as a source of spare parts, a process sometimes described as "parting out". These parts, although serviceable at the time the aircraft was placed in storage, may have been affected adversely by storage conditions, including especially environmental factors, or by the length of storage.

13.2 The records for the aircraft and its parts prior to the aircraft being placed into storage will need to be researched in order to ascertain the previous maintenance history, and airworthiness directive, modification and repair status of the parts being removed. Any unusual events immediately prior to storage, e.g. heavy landings or lightning strikes, will also have to be considered when deciding on the serviceability of the parts being removed.

13.3 It is important that the part removal process be planned and controlled in a manner as close as possible to that adopted for routine maintenance tasks on in-service aircraft. The following points in particular should be considered:

(a) the means by which the part is removed should be in accordance with the normal maintenance data (e.g. maintenance manuals), using the tooling specified;

(b) adequate access equipment should be provided;

(c) if conducted in the open air, disassembly should cease during inclement weather;

(d) all work should be carried out by appropriately qualified maintenance personnel;

(e) all open connections should be blanked;

(f) a protected and enclosed quarantine storage area for the parts being removed should be provided in the immediate vicinity of the work area and;

(g) normal maintenance documentary controls should be used, e.g. the use of work sheets or cards to record component removals, and label identification to show serviceability status.

13.4 An assessment for condition and eventual return to service of each removed part will need to be conducted by a suitably approved organization. The extent of the work necessary before the part is returned to service may, depending on the factors noted in 14.1, range from a simple external visual inspection to a complete overhaul.

14. PARTS RECOVERED FROM AN AIRCRAFT INVOLVED IN ACCIDENTS

14.1 When an aircraft has been involved in an accident, the title to the salvage may pass from the insured owner to other persons (e.g. aircraft insurers); this salvage may be offered for sale either complete or as separate aircraft items in an “as is, where is” condition. While some items may be totally unaffected by the accident or incident which caused the aircraft to be declared as salvage, it is essential to obtain clear evidence that this is the case. If such evidence cannot be obtained, the item may not be returned to service.

14.2 Before overhaul and reinstallation can be considered, all such items must therefore be subject to airworthiness assessment and inspection in the light of adequate knowledge of the circumstances of the accident, subsequent storage, and transport conditions, and with evidence of previous operational history obtained from valid airworthiness records. Confirmation of this assessment in the form of an airworthiness release is essential.

14.3 In particular, if a crash load is sufficient to take any part above its proof strength, residual strains may remain which could reduce the effective strength of the item or otherwise impair its functions. Loads higher than this may of course crack the item, with an even more dangerous potential. Further, a reduction in strength may be caused by virtue of the change of a material's characteristics following overheat from a fire. It is therefore of the utmost importance to establish that the item is neither cracked, distorted or overheated.

14.4 The degree of distortion may be difficult to assess if the precise original dimensions are not known, in which case there is no option but to reject the item. Any suggestion of overheating would be cause for a laboratory investigation into significant change of material properties.

15. PARTS ORGINATING FROM SURPLUS UNITED STATES MILITARY STOCK.

15.1 Parts that originate from surplus United States military stocks are not approved parts. The United States Department of Defence (DOD) has a programme called "Spare Parts Breakout Program". Under this programme, the DOD uses manufacturer approved drawing, obtained under the terms of production contracts with the original equipment manufacturer, and contracts the manufacture of these parts to third parties.

15.2 These manufacturers of the Spare Parts Breakout Program parts may not have the stringent quality controls that are required by the aircraft/component type certificate holder to satisfy FAA requirements. For example, periodic conformity inspections and destructive tests to assure the continued quality of the product may not have been undertaken.

15.3 The US government may also substitute military specifications in lieu of original approved material and process specifications; thereby developing parts that do not necessarily conform to the FAA approved civil type design.

15.4 The usage or installation of these parts on a Mauritian registered aircraft is not allowed.

16. DISPOSAL OF SCRAPPED PARTS

16.1 Those responsible for the disposal of scrapped aircraft parts and materials shall consider the possibility of such parts and materials being misrepresented and sold as serviceable at a later date. Caution shall 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:

(i) parts with non-repairable defects, whether visible or not to the naked eye;

(ii) parts that are not within the specifications set forth by the approved design, and cannot be brought into conformity with applicable specifications;

(iii) parts and materials for which further processing or rework cannot make them eligible for certification under an approved system;

(iv) parts subjected to unacceptable modifications or rework that is irreversible;

(v) life-limited parts that have reached or exceeded their life limits, or have permanently missing or incomplete records;

(vi) parts that cannot be returned to an airworthy condition due to exposure to extreme forces or heat; and

(vii) 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.

16.2 Scrapping of parts and materials may not be appropriate in certain cases when there is an on-going evaluation process to determine whether a part or material may be restored to an airworthy condition. Examples of these cases include the extension of life limits, the re-establishment of in-service history records, or the approval of new repair methods and technologies. In these cases, such parts should be segregated from serviceable parts until the decision has been made as to whether these parts can be restored to an airworthy condition, or be scrapped.

16.3 Scrapped parts should always be segregated from serviceable parts and when eventually disposed of should be mutilated or clearly and permanently marked. This should be accomplished in such a manner that the parts become unusable for their original intended use and unable to be reworked or camouflaged to provide the appearance of being serviceable. GM1 145.A.42(c)(i) of the MCAR Part 145 also provide further details for Mutilation of Components.

16.4 When scrapped parts are disposed of for legitimate non-flight uses, such as training and education aids, research and development, or for non-aviation applications, mutilation is often not appropriate. In such cases the parts should be permanently marked indicating that they are not serviceable; alternatively, the original part number or data plate information can be removed or a record kept of the disposition of the parts.

17. INVESTIGATION

17.1 After reception of SUP Report, the Director of Civil Aviation will appoint an Airworthiness inspector to initiate a technical investigation, which must be completed within 10 working days since reception of the report.

17.2 Reports considered critical could be requested to be analyzed within a

shorter time, as evaluated by DCA.

17.3 As a result, Airworthiness inspector must issue a technical investigation report and raise to DCA for its analysis and approval.

17.4 Once the technical investigation report is completed and approved by DCA, it will be compiled in a database containing all the results from previous reports, including data as sequence number, report receiving date, title of SUP Report, inspector in charge of investigation, date of completion of investigation and actions required, as defined on the investigation and agreed with DCA.

17.5 Amongst the action required after completing the investigation report, the distribution of required actions to any interested party, other operators, manufacturers and civil aviation authorities related to the part must be included.

Appendix 1 – Form DCA SUP - Suspected Unapproved Parts report

DEPARTMENT OF CIVIL AVIATION (MAURITIUS)

SUSPECTED UNAPPROVED PARTS REPORT

		SUP No.:(DCA Use only)
Aircraft/Equipment manufacturer and Model:	Part Name:	
Part No:	Serial No:	Quantity:
Place of Occurrence/report:	Date and Time:	

COMPANY OR PERSON WHO SUPPLIED OR REPAIRED THE PART

Name:	Organisation:	Phone/Email:
Address:		

DETAILS OF WHERE PART WAS DISCOVERED

Date part was discovered:	If part was fitted to aircraft, registration mark:	
Name:	Organisation:	Phone:
Address:		
Check one that applies ☐ AOC Holder ☐ AMO ☐ AME ☐ Distributor ☐ Other		

DESCRIPTION OF EVENT (Include circumstances when part was found, identification and marking, why you think the part is not approved)

Attach additional information if required.

REPORTER'S DETAILS

Name:	Organisation:	Phone:	Date:

Address	

Do you want to remain confidential? ☐ Yes ☐ No	Do you wish to receive an acknowledgment letter? ☐ Yes ☐ No

Received by: Place: Date: