



Barbados Civil Aviation  
Department

BCAD Document AAC-018

**AIRWORTHINESS**

**ADVISORY**

**CIRCULAR**

# THE PROBLEM OF BOGUS PARTS



# **THE PROBLEM OF BOGUS PARTS**

1. Introduction.....	4
2. Unapproved Parts.....	4
3. Parts Originating from the Surplus United States Military Stock.....	4
4. FAA Suspect Unapproved Parts Notifications.....	5
5. Mandatory Occurrence Reporting Procedures.....	5
6. The Certifying Person and User Responsibility.....	6

# THE PROBLEM OF BOGUS PARTS

## 1. INTRODUCTION

- 1.1 The BCAD is concerned about the possibility that unapproved parts may find their way on to Barbados registered aircraft, in particular helicopters. Evidence indicates that these counterfeit and/or fraudulently identified parts are readily available worldwide.
- 1.2 Manufacturing and/or marketing bogus parts is not endemic to any one State but evidence of the falsification of release documentation (JAA Form One) has been observed.
- 1.3 Installing bogus parts onto aircraft has serious airworthiness implications; to illustrate just how serious, the following two examples are quoted involving aircraft which are available in the international market place:
  - (a) A helicopter main rotor blade complete with release documentation was traced as having been scrapped by the manufacturer during the manufacturing process; and
  - (b) An engine mount described as fitted new to an aircraft in 1979 was traced as having been factory installed in 1966.

## 2. UNAPPROVED PARTS

For the purpose of this Advisory Circular, an Unapproved part is a part or material, which has been neither manufactured according to approved procedures nor conforms to an approved type design or it fails to conform to declared specifications or accepted industry standards (i.e. standard parts) and which is intended for installation on a type certificated product/aircraft.

2.1. Unapproved parts include, but are not limited to:

- (a) Parts specified in the illustrated parts catalogues (IPC) of a type certificated aircraft, but which have been manufactured, reclaimed or reworked and then marked by an unauthorised source and provided with documents which indicate falsely that the part(s) are genuine and conform to the approved type design or meet a particular industry standard and are offered for use as conforming with an aircraft manufacturers authorised IPC.
- (b) Parts shipped directly to users by manufacturers, suppliers or distributors who do not themselves hold appropriate production approvals for the parts, and have not been authorised to make direct shipments to users or stockists, by the type certificate holder, who alone has production approval e.g. production overruns. This is a particular phenomena in the United States.
- (c) Parts which have not been maintained, overhauled or repaired in accordance with the requirements of approved airworthiness data and/or statutory requirements, or that have been maintained, overhauled or repaired by persons not authorised to perform and certify these functions.

### **3. PARTS ORIGINATING FROM THE SURPLUS UNITED STATES MILITARY STOCK**

The United States Department of Defence (DOD) has a programme called 'BREAKOUT'. Under this programme the DOD use manufacturers' approved drawings, obtained under the terms of production contracts with the original equipment manufacturer and seek bids from anyone who wishes to make the parts. Parts produced under the BREAKOUT programme are unacceptable for use on Barbados civil registered aircraft for the following reasons:

- (a) The suppliers of the BREAKOUT 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.
- (b) The US government may also substitute military specifications in lieu of originally approved material and process specifications, thereby developing parts that do not conform to the FAA approved civil type design.

### **4 FAA SUSPECT UNAPPROVED PARTS NOTIFICATIONS**

- 4.1 The FAA have intensified efforts to educate the public regarding the potential safety threat posed by aeronautical parts that do not meet applicable design, manufacturing or maintenance requirements. To achieve this, the FAA established a Suspect Unapproved Parts programme (SUPs) and issued guidance in an Advisory Circular 21-29B.
- 4.2 Suspect Unapproved Parts Notifications can be found on FAA Internet site: <http://www.faa.gov/avr/sups.htm>
- 4.3 Because of the increased activity being undertaken in the United States against suspect unapproved parts, it is likely that the vendors of these parts will direct their activities to wards Europe and other parts of the world, because of the reduced risk of detection.

### **5 MANDATORY OCCURRENCE REPORTING PROCEDURES**

- 5.1. Users of aircraft components and spares are reminded that suspected unapproved parts should be reported to the BCAD through the Mandatory Occurrence Reporting procedures (MOR).
- 5.2. Although the MOR procedure does not extend to piston engined aircraft privately operated, and any aircraft with a Special Airworthiness Certificate, users of aircraft parts or material for this class of aircraft are encouraged to use the procedure where suspect parts are identified.
- 5.3. On receipt of an MOR, and where appropriate, the BCAD will pass the details to the responsible aviation Authority. In addition to assisting the FAA, who are implementing a vigorous campaign against unapproved parts, this procedure will enable the BCAD to establish the dimensions of the problem as it affects the BCAD.

- 5.4. To assist in tracing unapproved parts or material, 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 of part.
  - (d) List next higher assembly that suspected unapproved part is assembled into (ie, fuel pump, engine, landing gear) and list 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 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 the suspected unapproved part(s) was discovered.
- 5.5 Foreign aircraft and approved component manufacturers can be contacted directly for verification that specific serial numbered items purported to be manufactured by them are in fact recorded in their archives.

## **6 THE CERTIFYING PERSON AND USER RESPONSIBILITY**

- 6.1. The Certifying Person (User) can be either the Approved Maintenance Organisation, a person authorised in accordance with that organisation's Maintenance Procedures Manual or an appropriately BCAD Type Rated Licensed Engineer, who issues the maintenance release for installation of an aircraft part into an aircraft, its engine(s), propeller(s) or equipment.
- 6.2. The User of an aircraft part is responsible for ensuring that the part is serviceable and conforms to the standard determined by the appropriate type certificate holder as being suitable for the intended application. In order to discharge this responsibility to the satisfaction of the BCAD, the user must, when obtaining an aeronautical part from a supplier:
- (a) Ensure that the purchase order contains an accurate definition of the aircraft parts and full details of the quality control and certification requirements to be met by the supplier in satisfying the order;
  - (b) Take all necessary steps to verify that the supplier is meeting the requirements of the purchase order. This may require the user visiting the suppliers facilities.

- 6.3. In order to contain the serious problem of unapproved parts, Commercial Air Transport Operators (Public Transport) and associated maintenance organisations who are users of aircraft spares, should ensure that their aircraft spares purchasing policy and procedures are unequivocally stated in their company Maintenance Procedures Manual and engineering procedural documents. They should also ensure that any deviation from that policy must be approved by the quality manager in accordance with procedures acceptable to the DCA.
- 6.4. Other organisations and private owners who purchase aircraft parts or materials can only be advised to exercise extreme caution and remember they will have to convince the USER of the authenticity of such spares.