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REPUBLIC OF NAMIBIA

NAMIBIA CIVIL AVIATION AUTHORITY

AERONAUTICAL INFORMATION CIRCULAR

Executive Director
Namibia Civil Aviation Authority
Private Bag 12003
Ausspannplatz
WINDHOEK

AIC
Series A
29/24
05 March 2024

AIRWORTHINESS

MAINTENANCE

SERVICE DIFFICULTY AND DEFECT REPORTING

1. GENERAL

1.1. The Service Difficulty Reporting System (SDR) is established to support the Namibia Civil Aviation Authority (NCAA) in its mandate to foster an acceptable level of safety by:
1.1.1. Promoting product improvement;
1.1.2. Detecting trends (versus isolated cases);
1.1.3. Determining reliability of accessories (to aid in setting inspection and replacement periods); and
1.1.4. Enabling a more meaningful advisory service to aircraft operators.

1.2. The SDR assists in identifying potential safety problems and in effective decision-making, human resource utilisation and enhancement of safety. The SDR provides intelligence needed to assess defects, institute early corrective action and thus assist in accident prevention.

1.3. The SDR is a feedback system, which provides a most effective database for effective decisions on matters of reliability and airworthiness. Future development of the SDR could result in a worldwide sharing of service difficulty information such as is being done with the ICAO co-ordinated Accident/Incident Reporting Programme.

1.4. Most failures in aircraft components are random. In some cases service time between overhauls can be increased if based on proper statistics obtainable with a working SDR system. Truly meaningful inspection periods should result from proper inspection rationalization based on good statistical records resulting from full defect reporting. Conversely, SDR information may be used to advise operators that reliability of certain components must be improved.

1.5. An effective SDR programme will provide information, which will enable the NCAA to provide an improved advisory service to the operators.

2. SOURCE OF INFORMATION FOR THE SERVICE DIFFICULTY REPORT

Service Difficulty Reports should be received from sources such as:

2.1. All commercial aviation operators;
2.2. Those significant malfunctions, failures, or conditions brought to the attention of, or noted by, the NCAA Inspector during surveillance of the aviation industry activities; and
2.3. Any source having access to aviation safety information such as air traffic control.

3. GUIDELINES FOR REPORTING

3.1. All commercial operators are required to submit difficulty and defect reports to the NCAA. The reports should be submitted on form NCAA/SDR-1 a sample of which is shown in appendix A. A report is required for each malfunction, failure, or defect that occurs under the reportable categories. This includes any such failure that occurs subsequent to a similar failure previously reported. One-time reporting of similar defects in unacceptable. In addition, each operator should report any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time, if in the operator's opinion that failure, malfunction or defect has endangered or may endanger the safe operation of an aircraft.
3.2. Each operator should report the occurrence or detection of each failure, malfunction or defect concerning at least the following:
   a. Fires during flight and whether the related fire-warning system properly operated;
   b. Fires during flight not protected by a related fire-warning system;
   c. False fire warning during flight;
   d. An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;
   e. An aircraft component that causes accumulation or circulation of smoke, vapour, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;
   f. Engine shutdown during flight because of flame out;
   g. Engine shutdown during flight when external damage to the engine or aircraft structure occurs;
   h. Engine shutdown during flight due to foreign object ingestion or icing;
   i. Shutdown during flight of more than one engine;
   j. A propeller feathering system or ability of the system to control over speed during flight;
   k. A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;
   l. A landing gear extension or retraction, or opening or closing of landing gear doors during flight;
   m. Brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;
   n. Aircraft structure that requires major repair;
   o. Cracks, permanent deformation, or corrosion of aircraft structure, if more than the maximum acceptable to the manufacturer or the NCAA;
   p. Aircraft components or systems that result in taking emergency actions during flight (except action to shut down an engine);
   q. Each interruption to a flight, unscheduled change of aircraft en-route, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions;
   r. The number of engines removed prematurely because of malfunction, failure or defect, listed by make and model and the aircraft type in which it was installed; and

s. The number of propeller featherings in flight, listed by type of propeller and engine and aircraft on which it was installed.

3.3. In addition to the reports required above, each operator should report any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time, if in his opinion, the failure, malfunction, or defect has endangered or may endanger the safe operation of the aircraft.

3.4. The reports shall be submitted in writing within 72 hours after occurrence.

4. SIGNIFICANT REPORTS

4.1. Reports that concern:

a. primary structure failure;
b. control system failure;
c. fire in the aircraft;
d. engine structural failure; or
e. any other condition considered an imminent hazard to safety, warrant immediate notification to the NCAA by telephone or fax. The telephone/fax report should follow the format of the Service Difficulty Report and being of alert nature, should contain the following information when available and relevant:
    i. aircraft owner's name and address;
    ii. whether accident or incident;
    iii. related service bulletins, service letters, airworthiness directives; and
    iv. disposition of the defective parts.

4.2. The information contained in the telephone/fax report should be entered on the SDR form and submitted in the normal manner to the NCAA as soon as possible after the telephone/fax submission.

4.3. See appendix 1 for a sample report form NCAA/SDR-1 and instructions for completion.

APPENDIX 1

SERVICE DIFFICULTY REPORT FORM No.NCAA/SDR-1

<table>
<tr><td colspan="2">1.
AIRCRAFT REGISTRATION</td><td colspan="2">2.
NAMIBIA CIVIL AVIATION AUTHORITY
Private Bag 12003 Ausspannplatz
Windhoek, Namibia
Tel: +264 83 235 2000</td><td>3.
Date of Occurrence
4.
Date Submitted</td><td>5.
OPEN □
CLOSED □</td></tr>
<tr><td rowspan="2">8.
AIRCRAFT</td><td>MAKE</td><td>MODEL</td><td>SERIAL NO.</td><td>6.
LOCATION</td></tr>
<tr><td></td><td></td><td></td><td rowspan="5">7. COMMENTS
(DESRCIBE THE DEFECT CIRCUMSTANCES. PROBABLE CAUSE AND RECOMMENDATIONS TO PREVENT RECURENCE, USE REVERSE SIDE IF NEEDED.)

16. SUBMITTED BY:

PILOT □
ENGINEER □
OTHER □</td></tr>
<tr><td>POWER PLANT</td><td></td><td></td><td></td></tr>
<tr><td>PROPELLER</td><td></td><td></td><td></td></tr>
<tr><td colspan="4">9. SYSTEM/COMPONENT (ASSY. THAT INCLUDES PART</td></tr>
<tr><td>NAME</td><td>MAKE</td><td>MODEL</td><td>SERIAL</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="4">10.
SPECIFIC PART (OF COMPONENT) CAUSING TROUBLE</td><td rowspan="4"></td></tr>
<tr><td>NAME</td><td>NUMBER</td><td colspan="2">PART/DEFECT LOCATION</td></tr>
<tr><td></td><td></td><td colspan="2"></td></tr>
<tr><td>11.
ATA CODE</td><td>12.
PART TT</td><td>13.
PART TSO</td><td>14.
PART CONDITION</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="5">15. PHASE OF OPERATION GROUND □ TAXI □ TAKE OFF □
CLIMB □ CRUISE □ DESCENT □
LANDING □</td></tr>
</table>

INSTRUCTIONS FOR COMPLETING FORM No. NCAA/SDR-1

1. Enter the aircraft registration, such as V5-ABC.
2. The completed forms are to be mailed to this address.
3. Actual date of the occurrence.
4. Actual date the form was mailed.
5. Open; Check this box if the report is not complete and there is more information forthcoming. Closed; Check this box if the report is complete and there is not expected to be any further information on this particular occurrence. Supplementary reports are entered as Supp.#1 open if there is more information to follow or Supp. Closed indicating that this is the final report.
6. The Place where the difficulty occurred.
7. Comments
   The text should identify and describe the cause of the malfunction, failure or defect. It should contain descriptive information concerning the part/ component that caused the difficulty, inspection findings and corrective action taken to prevent recurrence. If additional space is required to give the complete story use the reverse side of the form. Make reference to any attachment such as pictures, parts, etc.
8.
   8.1 Aircraft
      a) Make: The aircraft manufacturer's name; any meaningful abbreviation should be acceptable such as B for Boeing, D for Douglas or BE for Beechcraft.
      b) Model/series: This information should be the official designation of the aircraft as listed in the Aircraft Specification Data Sheets or Type Data Sheets.
      c) Serial number: The serial number assigned by the manufacturer.
   8.2 Powerplant
      a) Enter make, model and serial number in the same manner as for aircraft.
   8.3 Propeller
      a) Enter make, model and serial number.
      b) Note: Serial numbers are especially important for propeller problems. Combinations of propellers and engines sometimes cause problems therefore enter complete information.
9. System/ component.
   When a system or component is being processed for a repair shop and it is not known what aircraft, powerplant or propeller it was removed from, "component only " should be written across block 8. Block 8 should be completed for all systems/components if possible.
10. Specific part (of component) causing trouble

- Name: Enter the manufacturer's name of the specific part causing the problem.
- Number: Enter the manufacturer's part number.
- Part/Defect Location: Locate the discrepant part or the defect. Example rt. Rear box, jacking point, left outboard, etc.

11. ATA Code
    Enter the aircraft system and subsystem, respectively by the numerical symbols (ATA Spec 100) example engine cylinder 7230 enter only 7230.

12. Part TT

    Enter the total service time of the part in the whole hours.

13. Part TSO

    Part time since overhaul; enter the service time of the part since it was last overhauled in whole hours, example 316.3 hours.

14. Part Condition

    Enter the words which best describe the part condition such as broken, chafed, cracked, corroded, etc.

15. Phase Operation

    Enter the stage of the flight or ground operation the aircraft was engaged in when the reported failure, malfunction, or defect occurred or was observed.

16. Submitted by
17. Name of the person submitting the report and the organisation such as name of an operator.