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GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF CIVIL AVIATION

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AIRWORTHINESS ADVISORY CIRCULAR

F. No.: DGCA-25012(07)/5/2024

Subject: Occurrence Reporting

1. Introduction

1.1 Rule 29E of Aircraft Rules 1937 requires Director General to establish a mandatory safety reporting system to facilitate collection of information on actual or potential safety deficiencies.

1.2 CAR M.A.202 and CAR ML.A.202 states that "Without prejudice to the reporting requirements set out in CAR-145 and CAR-CAMO, any person or organisation responsible i.a.w point M.A.201 & ML.A. 201 shall report any identified condition of an aircraft or component which endangers flight safety to DGCA". Further, CAR CAMO.A.160 and CAR 145.A.60 requires that "As part of its management system, the organisation shall implement an occurrence reporting system that meets the requirements defined in the relevant Regulation".

1.3 The primary objective of occurrence reporting is to monitor, disseminate and record for analysis, critical or potentially critical safety occurrences. The aim of occurrence reporting is to identify the factors contributing to incidents, and to make the system resistant to similar errors.

1.4 This circular provides additional guidance for the mandatory reporting of reportable occurrences. It is important to note that this circular on its own does not change, create, amend, or permit deviations from regulatory requirements, nor does it establish minimum standards.

1.5 The provision of this circular is complimentary to the CAR requirements “as amended” and does not supersede or replace the associated regulatory requirements.

2. Regulatory References

CAR M
CAR CAMO
CAR CAO
CAR 145
CAR ML
CAR Section 2 requirements (as applicable)

3. Occurrence Reporting

3.1 ‘Occurrence’ means any safety-related event or condition of an aircraft or component identified by the organisation which endangers or, if not corrected or addressed, could endanger an aircraft.

3.2 It is necessary to ensure that any person or organisation responsible reports occurrences that pose a risk to aviation safety. Occurrence reporting helps in improving aviation safety by ensuring that relevant safety information is reported, collected, stored, protected, exchanged, disseminated, and analyzed.

4. Submission of Reports

4.1 Reports (Part 1 of Appendix B) shall be made as soon as practicable, but no later than 72 hours from the moment when the person or organisation identified the condition to which the report relates, unless exceptional circumstances prevent this.

4.2 The period of 72 hours is normally understood to start from when the person or organisation became aware of the occurrence.

4.3 The reports may be transmitted by any method i.e. electronically, by post or by facsimile. The report should be submitted in the format prescribed at Appendix ‘B’.

4.4 CAR Section 5 Series C Part I lays down a list of classifying occurrences in civil aviation to be mandatorily reported. Additionally, reportable occurrences are listed in Appendix A.

5. Follow-up Report

5.1 Each organisation should analyse occurrences in order to identify the safety hazards associated with identified occurrences or groups of occurrences. Based on that analysis, each organisation should determine any appropriate corrective or preventive action, required to improve aviation safety.

5.2 When, following the analysis, an organisation identifies any appropriate corrective or preventive action required to address actual or potential aviation safety deficiencies, it should:

a) implement that action in a timely manner; and
b) monitor the implementation and effectiveness of the action.

5.3 The organisation shall report the final results of the analysis (Part 1 & 2 of Appendix B), to the concerned RAO/SRAO as soon as they are available and, in principle, no later than 90 days from the date of notification of the occurrence.

Sd/-
(Tuhinanshu Sharma)
Joint Director General
for Director General of Civil Aviation

Appendix A: Reportable Occurrences

This list should not be understood as being an exhaustive collection of all issues that may pose a significant risk to aviation safety and therefore reporting should not be limited to items listed herein.

a). Manufacturing

Products, parts or appliances released from the production organisation with deviations from the applicable design data that could lead to a potential unsafe condition as identified by the holder of the type certificate or design approval.

b). Design

Any failure, malfunction, defect or other occurrence related to a product, part or appliance which has resulted, or may result, in an unsafe condition.

c). Maintenance and Continuing Airworthiness Arrangement

1) A defect detected on the aircraft during a maintenance inspection (scheduled or non-scheduled) which may have its origin in a maintenance or design error.
   a) During routine inspection: Damage found to number 4 engine inlet cowl acoustic lining.
   b) During routine inspection: Rivets found loose on vertical stabilizer.
   c) Found during after flight inspection: Excessive play in tail rotor blade pitch link bearing at the attachment to the tail rotor blade horn due to bearing migration.
2) A deviation of maintenance procedure (company manual or manufacturer documentation)
   a) Safety pin being left installed in a component, such as an escape slide.
   b) Alleged inappropriate repair carried out with damage outside of SRM limits.
   c) Torch left in intake causing damage to inlet cowl during engine start.
   d) Part Number of replaced part not properly recorded.
3) Serious structural damage (for example: cracks, permanent deformation, delamination, de-bonding, burning, excessive wear, or corrosion) found during maintenance of the aircraft or component.
4) Serious leakage or contamination of fluids (for example: hydraulic, fuel, oil, gas or other fluids).

5) Failure or malfunction of any part of an engine or power plant and/or transmission resulting in any one or more of the following:
   a) Non-containment of components/debris;
   b) Failure of the engine mount structure.
6) Damage, failure or defect of propeller, which could lead to in-flight separation of the propeller or any major portion of the propeller and/or malfunctions of the propeller control.
7) Damage, failure or defect of main rotor gearbox/attachment, which could lead to in-flight separation of the rotor assembly and/or malfunctions of the rotor control.
8) Significant malfunction of a safety-critical system or equipment including emergency system or equipment during maintenance testing or failure to activate these systems after maintenance.
9) Incorrect assembly or installation of components of the aircraft found during an inspection or test procedure not intended for that specific purpose.
10) Wrong assessment of a serious defect, or serious non-compliance with MEL and Technical logbook procedures.
11) Serious damage to Electrical Wiring Interconnection System (EWIS).
12) Any defect in a life-controlled critical part causing retirement before completion of its full life.
13) The use of products, components or materials, from unknown, suspect origin, or unserviceable critical components.
14) Misleading, incorrect or insufficient applicable maintenance data or procedures that could lead to significant maintenance errors, including language issue.
15) Incorrect control or application of aircraft maintenance limitations or scheduled maintenance.
16) Releasing an aircraft to service from maintenance in case of any non-compliance which endangers the flight safety.
17) Serious damage caused to an aircraft during maintenance activities due to incorrect maintenance or use of inappropriate or unserviceable ground support equipment that requires additional maintenance actions.
18) Identified burning, melting, smoke, arcing, overheating or fire occurrences.
19) Any occurrence where the human performance, including fatigue of personnel, has directly contributed to or could have contributed to an accident or a serious incident.
20) Significant malfunction, reliability issue, or recurrent recording quality issue affecting a flight recorder system (such as a flight data recorder system, a data link recording system or a cockpit voice recorder system) or lack of information needed to ensure the serviceability of a flight recorder system.

Appendix B: Occurrence Reporting Form

Occurrence Reporting Form								
Report No.……								
Part 1								
Report Status ☐ **Initial Report (Part 1)** ☐ **Analysis and Closing Actions (Part 2)**								
1. Operator/Organisation Name:								
2. Type of Aircraft:	3. Registration No.:	4. MSN:	5. Date of Occurrence:	6. Total Flying Hours/Cycles				
7.Flight Number	8. Sector	10. Stage of Flight: (e.g., preflight, takeoff, climb, cruise, descent, landing, inspection)	11. Emergency procedures effected, if any (e.g., unscheduled landing, emergency descent)	12. In case of ground occurrence, place of occurrence				
	9. Whether EDTO Sector: Yes ☐ No ☐							
13. Parties informed: ☐ Operator(s) ☐ CAMO/CAR-CAO/CAR 145 ☐ Design Approval Holder		14.Name of Design Approval Holder(s) informed (if relevant):	15. Whether EDTO Significant Event or not?					
16. Engine Type of Engine/Make:								
17. Details of Engine		Serial No.	Total Time	Cycles	Time since last shop visit			
Port Engine(s)								
Starboard Engine(s)								
Auxiliary Power Unit		Type/Make of APU		Serial No. of APU				
18. Brief Narrative of Occurrence								

19. Rectification/Corrective Action Taken

20. Identification of Part(s)/System(s) involved:

S.No.	Description	Part No.	Serial No.	Total Time since overhaul	Total Time since last Inspection	Time since overhaul/ last maintenance Inspection	Apparent cause of failure, malfunction or defect (e.g. wear, crack, design deficiency, or personnel error)	Whether the part was repaired, replaced, sent to manufacturer or other action taken

21. Component(s) replaced:

S.No.	Description	Part No.	Serial No.	Off No.	Installed No.

22. Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action:

23. Status of Occurrence Analysis	24. Whether aircraft was grounded?	Signature: Name: Designation: Date:
Open/Closed	Yes/No	

Report No. ……
PART 2
1. Identify root cause(s) of failure leading to the occurrence:
2- Analysis of Occurrence:
3- Risk Assessment :
4- Closing Action: Should be as a result of the details identified above (e.g. additional training, component change, process change etc.)
Submitted By: Signature: Name: Designation: Date: