



GUYANA CIVIL AVIATION AUTHORITY

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**GCAA
ADVISORY CIRCULAR**

**AIRWORTHINESS
AC NO: GCAA AC/AIR-008 R1**

**SUBJECT: MANDATORY OCCURRENCE
REPORTING SYSTEM**

**DATE INITIATED: 05-10-2016
INITIATED BY: Director Aviation
Safety Regulation**

1. PURPOSE

This Advisory Circular (AC) provides information and guidance concerning an acceptable means of compliance with Regulation 82 of the Guyana Civil Aviation (Air Navigation) Regulations (GCARs) regarding the Authority's Mandatory Occurrence Reporting (MOR) system.

2. AUDIENCE

This AC affects all aviation service providers and all persons within the aviation industry.

3. CANCELLATION

As of its effective date, this AC Revision 1, cancels Airworthiness AC #: 08 dated December 22, 2008.

4. EFFECTIVE DATE

This AC is effective 15th November, 2016.

5. CHANGES

The reason of this change is to delete all typographical errors and to include the current numbering system for GCAA ACs.

6. RELEVANT REFERENCES

- a. Annex 13 to the Convention on International Civil Aviation; and
- b. GCARs – Regulation 82.

7. CONTACT INFORMATION

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8. FORMS TO BE USED

GCAA MOR Form No. AW 065 (Forms can be obtained from the GCAA head office at the address in paragraph 7.)

9. OBJECTIVES OF THE MANDATORY OCCURRENCE REPORTING SYSTEM

- 9.1 To ensure that the GCAA is advised of all hazardous or potentially hazardous defects and incidents (occurrences).
- 9.2 To ensure that all information concerning these occurrences is disseminated to operators and other interested parties.
- 9.3 To enable an assessment to be made of the safety implications of each occurrence.
- 9.4 To decide whether any corrective action needs to be taken.

Note: The GCAA considers that the exchange of information resulting from the submission of reports under the MOR system can be of great benefit to aircraft safety and to all those concerned with aircraft maintenance by, for example, calling attention to various defects which have occurred on particular types of aircraft.

10. WHO COULD SUBMIT AN MOR

Any organisation concerned with the operation, manufacture, repair or overhaul of aircraft, or of any items of equipment intended for use on an aircraft, including Approved Maintenance Organisations (AMOs), Aircraft Commanders (Pilots), Air Traffic Controllers (ATCs), and Aircraft Maintenance Engineers (AMEs) signing Certificates of Release to Service and Certificates Maintenance Review in respect of such aircraft or equipment, who become aware of a reportable occurrence are required to submit a report to the GCAA, either directly or using the appropriate company procedures.

11. REPORTABLE OCCURRENCES

- 11.1 A reportable occurrence is defined as: ***"any incident, malfunction or defect in an aircraft or its equipment, or in ground facilities intended for use in connection with the operation of an aircraft, which endangers, or if not corrected could endanger, the aircraft or its occupants or any other person."***
- 11.2 Reports are thereby required on occurrences which involve, e.g., a defective condition or unsatisfactory behaviour or procedure which although not actually endangering the aircraft, could, if repeated in different circumstances, do so. These criteria should be used by all persons concerned with the MOR system before submitting a report.

12. DEFINITIONS

12.1 Reportable Occurrence - mean any occurrence:

- a. involving damage to an aircraft;
- b. involving injury to a person;
- c. involving the impairment during a flight of the capacity of the member of the flight crew of an aircraft to undertake his assigned functions;

- d. involving the use in flight of any procedures taken for the purpose of overcoming an emergency;
- e. involving the failure of an aircraft system or of any equipment of an emergency;
- f. arising from the control of an aircraft in flight by its flight crew;
- g. arising from the failure of inadequacy of facilities or services on the ground used for purposes of or in connection with the operation of aircraft;
- h. arising from the loading or the carriage of passengers, cargo, mail or fuel; and
- i. any other occurrence which constitutes an occurrence which endangers or, if it is not corrected, is likely to endanger the safety of an aircraft, its occupants or any other person.

12.2 Defect – mean the condition existing in an aircraft or aircraft component arising from any cause other than damage, which will preclude it or another component from performing the intended function or would reduce their expected service life.

12.3 Major Defect – mean a defect which reduces the safety of aircraft or its components and includes defects discovered as a result of occurrence of any emergency or during the course of normal operation or maintenance.

12.4 Repetitive Defect – mean the defect which recurs in spite of attempts made to rectify the same on a particular aircraft or another aircraft of the same type.

13. EXAMPLES OF OCCURRENCES THAT ARE CONSIDERED TO BE REPORTABLE

13.1 Structural Damage:

- a. Any failure of an aircraft primary structure;
- b. Damage which necessitates repair before further flight, due to e.g., ingestion, collision, meteorological conditions, hard or over weight landing, overheating, incorrect techniques or practices etc.;
- c. Cracks, permanent deformation or corrosion of aircraft structure not hitherto experienced or greater than expected to be encountered and routinely dealt with under the normal maintenance, repair or inspection procedures;
- d. Any failure of non-primary structure which endangers the aircraft; or
- e. Any part of the aircraft becoming detached in flight.

13.2 Injury to Personnel:

- a. Serious injury (harm) inflicted to any person during flight;
- b. Any injury to servicing personnel, resulting from a fault in the aircraft; or
- c. Any injury to servicing personnel, resulting from servicing procedures.

13.3 Aircraft System and Equipment Defects/Malfunctions:

- a. Malfunction, stiffness, slackness or limited range of movement of any controls;
- b. Inability to feather or un-feather a propeller, to shut down an engine, or to control thrust;
- c. Inability to re-light or re-start a serviceable engine;
- d. Failure or malfunction of the thrust reverser system;
- e. Fuel system malfunction affecting fuel supply and distribution;
- f. Malfunction of the fuel jettison system;
- g. Significant leakage of fuel, oil or other fluid;

- h. Use of incorrect fuel, oil or other fluid;
- i. Significant failure or malfunction of the electrical, hydraulic, pneumatic or ice-protection system, or of the radio and navigation equipment;
- j. Smoke, toxic or noxious fumes inside the aircraft;
- k. Significant failure of wheels, tyres or brakes;
- l. Incorrect assembly of components, causing possible malfunction;
- m. On a multi-engined rotorcraft, loss of drive of one engine;
- n. Operation of any rotorcraft transmission condition-warning system;
- o. Malfunction of any rotorcraft auto-stabilisation mode;
- p. Failure of floats or damage to floats by foreign objects in the water;
- q. Operation of fire or smoke warning systems;
- r. Pressurisation system malfunction necessitating a changed flight plan, or the use of emergency or standby oxygen system;
- s. Failure or malfunction of ground equipment used for testing/checking aircraft systems or equipment;
- t. Warnings of insecure hatches and doors during flight; or
- u. Engine surging sufficient to cause loss of power or to require subsequent remedial action.

13.4 Re-fueling Incidents:

Significant spillage of fuel during re-fueling or de-fueling operations, the use of incorrect or contaminated fuel, or failure of automatic cut-off valves in pressure re-fueling systems.

13.5 Cargo Incidents:

- a. Incidents arising from the carriage of cargo could be reportable if they endangered the aircraft and or persons.
- b. These include incidents related to:
 - i. the carriage of hazardous or restricted material;
 - ii. incorrectly packed cargo;
 - iii. incorrectly stowed cargo;
 - iv. incorrectly secured cargo; or
 - v. the carriage of livestock.

13.6 Any Reportable Occurrence arising from the Control of an Aircraft in Flight by its Flight Crew:

- a. Abandoned take-off;
- b. Unintentional deviation from intended track or altitude, caused by a procedural, systems or equipment defect;
- c. Unplanned diversion or unscheduled return to departure aerodrome;
- d. Precautionary or forced landing;
- e. Discontinued approach from below decision height;
- f. Unintentional contact with the ground, including touching down before the runway threshold;
- g. Over-running the ends or sides of the runway or landing strip;
- h. Serious loss of braking action;

- i. Loss of control from any cause, e.g. turbulence;
- j. Occurrence of a stall or a stick push, other than for training or test purposes;
- k. Operation whether genuine or spurious, of the stall warning (stick shake) system other than for training or test purposes;
- l. Stiffness, limitation of movement or poor or delayed response in the operation of any primary control;
- m. Malfunction of any control;
- n. Reversion to manual control of powered primary controls, other than for training or test purposes;
- o. Inadvertent incorrect operation of primary or ancillary controls;
- p. The impairment during flight of the capacity of a member of a flight crew to undertake the functions to which his/her license relates. Such impairment can be caused by the onset of illness (e.g.; food poisoning), the injudicious use of therapeutic drugs, alcohol, etc. Judgement as to whether such impairment "endangers" the aircraft is relevant in this case;
- q. The use in flight of any procedure taken for the purposes of overcoming an emergency, e.g. the use of, other than for training or test purposes, any emergency equipment or prescribed emergency procedures, any non-standard procedure adopted by the crew to deal with an emergency or an emergency auto-rotation landing by a rotorcraft;
- r. The declaration of an emergency situation. Requiring evacuation of the aircraft; or
- s. Abandoned take-off.

13.7 Occurrences Causing Delays to Scheduled Services

- a. Delay to a scheduled service of fifteen (15) minutes duration or more on account of a defect/malfunction in an aircraft shall be reported by the operator to the Director General of Civil Aviation within seventy-two (72) hours of receipt of information.
- b. The report shall contain at least the following information:
 - i. service number, date and place of the delay;
 - ii. nationality and registration marks and type of aircraft involved;
 - iii. duration of the delay;
 - iv. brief reasons for the delay; and
 - v. details of rectification action taken.

13.8 Failure or Inadequacy of Facilities or Services on the Ground used, or Intended to be used, for the Purpose of, or in Connection with, the Operation of Aircraft:

- a. Aids to navigation;
- b. Communication services;
- c. Prescribed let-down procedures;
- d. Meteorological reporting and forecasting services;
- e. Aerodrome lighting systems;
- f. The marking or obstructions or hazards on the maneuvering area; or
- g. Facilities and procedures forming part of the Air Traffic Services system.

13.9 Occurrences arising from:

- a. Receipt of incorrect or inadequate information from a ground source (ATS, ATIS, meteorological broadcast, etc.);
- b. The incorrect transmission, receipt or interpretation of a radio telephone message (air-to-ground or ground-to-air);
- c. Provision of an incorrect altimeter setting;
- d. Misidentification of aircraft in the use of radar;
- e. The setting of an incorrect SSR code; or
- f. Flight at a level, or on a route, different from that allocated.

13.10 Occurrences in which:

- a. The separation between aircraft was less than that prescribed for the situation; or
- b. Less than the prescribed terrain clearance was provided.

13.11 Aerodrome Environment:

- a. Circuit failures affecting the category of the runway;
- b. Runway obstructed by foreign objects;
- c. Major failures of runway guard-bar lighting;
- d. Major failure or deterioration of surfaces in aerodrome maneuvering areas;
- e. Significant fuel spillage on the apron;
- f. All undershoots/overshoots of aircraft leaving the runway paved areas;
- g. Collision between moving aircraft and vehicles or any other ground equipment; or
- h. Apron blast incidents.

13.12 Miscellaneous:

- a. Fire or explosion;
- b. Collisions between aircraft and vehicles or other ground equipment;
- c. Jet blasts incidents;
- d. Damage resulting from adverse weather conditions;
- e. Collision between moving aircraft and vehicles or any other ground equipment;
- f. Difficulty in controlling intoxicated, drunk, violent or armed passengers in flight or while boarding the aircraft;
- g. Any incident arising from incorrect or misleading information on maps and charts;
- h. Any incident arising at an excessive frequency, of a specific type of occurrence which in isolation would not be considered "reportable" (e.g. high frequency of spurious warning signals for certain systems or high failure rate for a specific component); or
- i. Incorrect assembly of components.

14. REPORTING PROCEDURES

- a. All reportable occurrences shall be submitted to the Director General of Civil Aviation (DGCA) in writing using the GCAA MOR Form No. AW 065 within seventy-two (72) hours of the occurrence coming to the person making the report.
- b. Any information not known at the time of submission of the report shall be forwarded when it becomes available. However, the GCAA must be notified of all reportable occurrences in the first place, using the fastest possible means, i.e. telephone, fax, or e-mail.
- c. Persons are encouraged to use the GCAA ***Occurrence and Safety Incident Reporting Telephone Hotline (592) 608 4222*** when making reports since this is a 24-hour dedicated service.
- d. The following information is required when reporting a MOR:
 - i. Nationality and registration marks of the aircraft;
 - ii. Aircraft type;
 - iii. name and address of the owner/operator;
 - iv. date and place of occurrence;
 - v. description of the occurrence;
 - vi. if investigation into the reportable occurrence has been instituted, the result thereof;
 - vii. action if any taken to prevent such recurrences;
 - viii. in case of a reportable occurrence taking place during flight:
 - 1) time of occurrence; and
 - 2) the last point of departure and the next point of intended landing of the aircraft;
 - viii. in case of a defect or malfunctioning in any part or equipment of an aircraft, the identification of the part(s), their modification status and the name of the manufacturer.



15. INVESTIGATION AND REVIEW

- a. The aircraft owners or operators shall evolve a system for undertaking detailed and speedy investigation of all reportable occurrences by the qualified technical staff. The main purpose of the investigation is to avoid recurrences, as such all efforts during the investigation should be made to determine the cause of the occurrence rather than who caused it.
- b. The system shall also include analyses of all results of investigation and periodic timely review to assess the adequacy of rectification action taken in respect of each occurrence and to determine if any weakness in the basic design of any aircraft, component or in the layout of any system, or in the maintenance techniques of the operator exists. Should any such weakness be detected, necessary corrective/preventive action shall be taken by the operator under intimation to the GCAA. The representatives of the Authority shall also have the option to associate themselves with this review and ask for any additional information connected with the occurrences, if considered necessary.
- c. In case completion of any investigation is likely to take longer than three months, a monthly progress report shall be furnished to the Authority till the finalization of the investigation.

16. PRESERVATION OF RECORDS AND DEFECTIVE COMPONENTS

- a. All records associated with the reportable occurrences/defects and rectification action taken shall be preserved for at least two (2) years or for such periods as the DGCA may require.
- b. The components associated with all major defects shall be preserved for a period of two (2) weeks minimum, from the date of intimation of defect, unless released earlier by the Authority.
- c. The operator of an aircraft shall, if he has reason to believe that a report has been or will be made in pursuance of this requirement, preserve any data from a flight data recorder or a cockpit (flight deck) voice recorder relevant to the reportable occurrence for fourteen (14) days from the date a report of that occurrence is made to the DGCA or for such longer period as the latter may in a particular case direct.

Approved by:



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Guyana Civil Aviation Authority