



GENERAL

ADVISORY

CIRCULAR

CIVIL AVIATION AUTHORITY OF BOTSWANA

CAAB Document GAC-014

MANDATORY OCCURRENCE REPORTING

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1. PURPOSE

This General Advisory Circular (GAC) provides information and guidance for reporting occurrences or conditions that seriously affect or might affect flight safety.

2. STATUS OF THIS ADVISORY CIRCULAR

This GAC is an original issuance.

3. EFFECTIVE DATE

This GAC becomes effective on 01 February 2013.

4. APPLICABILITY

This guidance is applicable to any person or organization involved in operation or maintenance of Botswana registered aircraft.

5. RELATED REGULATIONS

Copies may be obtained from the Government Printer.

- Civil Aviation (Airworthiness) Regulations: Regulation 35 – *Mandatory Reporting of Defects*
- Civil Aviation (Approved Maintenance Organisations) Regulations: Regulation 33 – *Reporting of Unairworthy Conditions.*

6. RELATED PUBLICATIONS

For further information on this subject, operators are advised to review the following publications -

Copies may be obtained from Document Sales Unit, ICAO, 999 University Street, Montreal, Quebec, Canada H3C 5H7.

- ICAO Annex 8 - Airworthiness of Aircraft
- ICAO Doc 9760 - Airworthiness Manual

7. DEFINITIONS AND ACRONYMS

7.1 The following definitions are used in this circular

Authority. This refers to the CAAB, unless otherwise specified.

Major Repair. A major repair is usually considered a repair that might appreciably affect mass, balance, structural strength, performance, power-plant operation, flight characteristics, or other qualities affecting airworthiness.

7.2 The following acronyms are used in this circular

AOC Air Operator's Certificate

CAAB Civil Aviation Authority of Botswana

CARs (Botswana) Civil Aviation Regulations

GAC General Advisory Circular

ICAO International Civil Aviation Organization

MPM Maintenance Procedures Manual

Advisory Circulars (ACs) are intended to provide advice and guidance to illustrate an acceptable 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 AC may be considered to prescribe a viable method of compliance, but status of that "prescription" is always "guidance" (never regulation).

8. BACKGROUND

- 8.1 Regulation 35.(1) of the Civil Aviation (Airworthiness) Regulations, 2012 requires an owner or operator of aeroplanes over 5,700 kg and helicopters over 3,175 kg maximum certificated take-off mass, or approved maintenance organization to report to the CAAB and the organisation responsible for type design of aircraft any failures, malfunctions, or defects that could result in the occurrences specified in that Regulation.
- 8.2 Regulations 33.(1) of the Civil Aviation (Approved Maintenance Organisations) Regulations, 2012 requires an approved maintenance organisation to report to the CAAB, the state of registry and the organisation responsible for the design of the aircraft or component identified by the organisation that has resulted or could result in an unsafe condition of the aircraft or pose a serious risk to flight safety.
- 8.3 Reports made in accordance with paragraphs 8.1 and 8.2 above are mandatory, and should be made in a form and manner prescribed the CAAB and should contain all pertinent information.

9. AIRWORTHINESS RESPONSIBILITIES OF THE OWNER/OPERATOR

- 9.1 Any person or organisation or operator should report to the State of registry, the organisation responsible for the type design or supplemental type design and, if applicable, the member State of operator, any identified condition of an aircraft or component that hazards seriously the flight safety.
- 9.2 Accountable persons or organisations should ensure that the type certificate (TC) holder receives adequate reports of occurrences for that aircraft type, to enable it to issue appropriate service instructions and recommendations to all owners or operators. Liaison with the TC holder is recommended to establish whether published or proposed service information will resolve the problem or to obtain a solution to a particular problem.
- 9.3 An approved continuing airworthiness management or maintenance organisation or operator should assign responsibility for co-ordinating action on airworthiness occurrences and for initiating any necessary further investigation and follow-up activity to a suitably qualified person with clearly defined authority and status.
- 9.4 In respect of maintenance, reporting a condition that could seriously hazard the aircraft is normally limited to:
- serious cracks, permanent deformation, burning or serious corrosion of structure found during scheduled maintenance of the aircraft or component.
 - failure of any emergency system during scheduled testing.
- 9.5 Reports should be made in a manner established by the Authority and contain all pertinent information about the condition known to the person or organisation. The reports may be transmitted by any method i.e. electronically, by post or by facsimile. Each report should contain at least the following information:
- reporter or organisations name and approval reference if applicable,
 - information necessary to identify the subject aircraft and or component,
 - date and time relative to any life or overhaul limitation in terms of flying hours/cycles/landings etc. as appropriate,
 - details of the occurrence.
- 9.6 Where the person or organisation maintaining the aircraft is contracted by an owner or an operator to carry out maintenance, the person or the organisation maintaining

the aircraft should also report to the owner, the operator or the continuing airworthiness management organization if any, any such condition affecting the owner's or the operator's aircraft or component.

- 9.7 Reports should be made as soon as practicable, but in any case within 72 hours (03 days) of the person or organisation identifying the condition to which the report relates.

10. RESPONSIBILITY OF MAINTENANCE ORGANISATIONS

10.1 The organisation should report to the CAAB, the state of registry and the organisation responsible for the design of the aircraft or component any condition of the aircraft or component identified by the organization that has resulted or may result in an unsafe condition that hazards seriously the flight safety.

- The aim of occurrence reporting is to identify the factors contributing to incidents, and to make the system resistant to similar errors.
- An occurrence reporting system should enable and encourage free and frank reporting of any (potentially) safety related occurrence. This will be facilitated by the establishment of a just culture. An organisation should ensure that personnel are not inappropriately punished for reporting or co-operating with occurrence investigations.
- The internal reporting process should be closed-loop, ensuring that actions are taken internally to address safety hazards.
- Feedback to reporters, both on an individual and more general basis, is important to ensure their continued support for the scheme.

10.2 The organisation should establish an internal occurrence reporting system as detailed in the Maintenance organization's procedures manual (MPM) to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under paragraph (a). This procedure should identify adverse trends, corrective actions taken or to be taken by the organisation to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.

10.3 The organisation should make such reports in accordance with the procedure outlined in paragraph 12, and ensure that they contain all pertinent information about the condition and evaluation results known to the organisation.

10.4 Where the organisation is contracted by a commercial operator to carry out maintenance, the organisation should also report to the operator any such condition affecting the operator's aircraft or component.

10.5 The organisation should produce and submit such reports as soon as practicable but in any case within 72 hours of the organisation identifying the condition to which the report relates.

11. RESPONSIBILITIES OF THE OPERATOR

- 11.1 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 or not a fire warning system was installed and functioned properly;
 - (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 flameout;
 - (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 overspeed during flight;
 - (k) a fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;
 - (l) an unintended landing gear extension or retraction, or opening or closing of landing gear doors during flight;
 - (m) brake system components failure 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 CAAB;
 - (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 technical 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.

- (t) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure; and
 - (u) A failure or malfunction of more than one (1) attitude, airspeed, or altitude instrument during a given operation of the aircraft.
- 11.2 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.

12. REPORTING PROCEDURE

- 12.1 Each operator, maintenance organization should report the occurrence using *CAAB Form AIR 320*. A sample of this form may be found in Appendix 1 to this Advisory Circular. The form may be downloaded from the CAAB website under Flight Safety Publications. Alternatively, the reporting form may be obtained from the Flight Safety Office at CAAB Head Office or at Maun Airport.
- 12.2 Where possible, the reporting form should be completed in full. Otherwise, it should include as much of the required information as possible. Any additional information required by the Regulations specified in paragraph 5 or any other regulation should be appended to the report.
- 12.3 Once completed, the report should be submitted at the nearest CAAB Office as soon as possible, but within three (3) days after determining that the occurrence required to be reported has occurred.
- 12.4 Where necessary, the CAAB will forward the report to the State of Registry. The Authority will also forward information on airworthiness deficiencies to the organisation responsible for the type design.


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For Civil Aviation Authority of Botswana



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APPENDIX 1

MANDATORY OCCURRENCE REPORTING FORM – CAAB Form AIR 320

AIRCRAFT INFORMATION															
AIRCRAFT MAKE, MODEL, AND SERIES	SERIAL NUMBER	REGISTRATION MARKS			AMO / OPERATOR			DATE		LOCATION / POSITION			TIME (UTC):		
													<input type="checkbox"/> DAY <input type="checkbox"/> NIGHT <input type="checkbox"/> TWILIGHT		
FLIGHT NUMBER	ROUTE FROM	ROUTE TO			ALTITUDE			AIRSPEED		ETOPS					
										<input type="checkbox"/> YES <input type="checkbox"/> NO					
NATURE OF FLIGHT															
<i>(Tick applicable box)</i>															
<input type="checkbox"/> Pax		<input type="checkbox"/> Cargo		<input type="checkbox"/> Positioning		<input type="checkbox"/> Ferry		<input type="checkbox"/> Test		<input type="checkbox"/> Training		<input type="checkbox"/> Business			
<input type="checkbox"/> Agriculture		<input type="checkbox"/> Survey		<input type="checkbox"/> Leisure		<input type="checkbox"/> Club/Group		<input type="checkbox"/> Private		<input type="checkbox"/> Parachuting		<input type="checkbox"/> Towing			
FLIGHT PHASE															
<i>(Tick applicable box)</i>															
<input type="checkbox"/> Parked		<input type="checkbox"/> Taxying		<input type="checkbox"/> Take-off		<input type="checkbox"/> Initial Climb		<input type="checkbox"/> Climb		<input type="checkbox"/> Cruise		<input type="checkbox"/> Descent			
<input type="checkbox"/> Holding		<input type="checkbox"/> Approach		<input type="checkbox"/> Landing		<input type="checkbox"/> Circuit		<input type="checkbox"/> Aerobatics		<input type="checkbox"/> Hover		<input type="checkbox"/> Other:			
ENVIRONMENTAL DETAILS															
Wind		Cloud		Precipitation			Other Meteorological Conditions				RUNWAY STATE				
Direction	Speed - Knots	Type	H T	Rain	Snow	Hail	Visibility	Icing	Turbulence	OAT	Dry	Wet	Ice	Snow	Slush
BRIEF TITLE OF OCCURRENCE															
DESCRIPTION OF OCCURRENCE															

GROUND STAFF REPORT

GROUND STAFF REPORT												
AIRCRAFT ENGINE DETAILS			PROPELLER INFORMATION		ETOPS APPROVED?		GROUND PHASE <i>(Tick applicable box below)</i>					
Make and Model: Serial Number:			Make & Model Serial Number		YES <input type="checkbox"/>	NO <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Ground Handling <input type="checkbox"/>	Unattended <input type="checkbox"/>			
COMPONENT PART DESCRIPTION			MANUFACTURER		PART NUMBER	SERIAL NUMBER	MANUAL REF.	COMPONENT STATUS				
								New Overhauled etc.				
DESCRIPTION OF OCCURRENCE <i>(including defect location):</i>												
ORGANISATION AND APPROVAL REFERENCE			NAME		POSITION		SIGNATURE		DATE			
REPORTING ORGANISATION – REPORT: ORGANISATION COMMENTS - Assessment / Action taken / Suggestions to Prevent Recurrence												
AIRCRAFT UTILISATION				ENGINE COMPONENT UTILISATION				MANUFACTURER ADVISED?				
	Total	Since Overhaul/Repair	Since Inspection		Total	Since Overhaul/Repair	Since Inspection	YES	NO			
Hours Cycles Landings				Hours Cycles Landings				<input type="checkbox"/>	<input type="checkbox"/>			
ORGANISATION		TELEPHONE / FAX		REPORTER'S REF.	REPORT		REPORTER'S INVESTIGATION			FDR DATA RETAINED?		
					New	Supplement	NIL	CLOSED	OPEN		YES	NO
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
NAME			POSITION			SIGNATURE			DATE			