



ADVISORY CIRCULAR

SLCAA-AC-AGA045-Rev. 00

SIERRA LEONE CIVIL AVIATION AUTHORITY

EFFECTIVE DATE: 31st AUGUST 2021

Aerodrome Accident and Incident Reporting

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Moses Tiffa Baio
Director General
Sierra Leone Civil Aviation Authority



1 GENERAL

This Advisory Circular (AC) provides general guidance on the Sierra Leone Civil Aviation Authority regulatory requirements of Aerodrome Accident and Incident Reporting for Aerodrome Operators.

An AMC is not intended to be the only means of compliance with a Regulation, and consideration will be given to other methods of compliance that may be presented to the Authority

Information considered directive in nature is described in this AC in terms such as “shall” and “must”, indicating the actions are mandatory. Guidance information is described in terms such as “should” and “may” indicating the actions are desirable or permissive, but not mandatory.

1.1 Purpose

This Advisory Circular provides methods, acceptable to the Authority, for showing compliance with the Aerodrome Accident and Incident Reporting requirements of the SLCAR Part 13 - Aircraft Accident and Incident Investigation, as well as explanatory and interpretative material to assist in showing compliance during the conduct of aerodrome works for which a safety plan is to be provided.

1.2 Applicability

This AC is designed to give guidance to aerodrome operators on the reporting of aerodrome related Accidents and Incidents that may occur at the aerodrome.

1.3 Description of Changes

This AC is the first to be issued on this subject.

1.4 References

- (a) SLCAR, Part 14A— Aerodrome Design and Operations
- (b) SLCAR Part 13 – Aircraft Accident and Incident Investigation
- (c) SLCAA-AC-AGA033-Rev.00 – Runway Incursion Prevention Measures

1.5 Cancelled Documents

Not Applicable

1.6 Abbreviations

These following abbreviations are used throughout this AC.

ANSP	Air Navigation Service Provider
APAPI	Abbreviated Precision Approach Path Indicator
ATC	Air Traffic Control
FOD	Foreign Object Debris
GSE	Ground Support Equipment
IBIS	ICAO Bird Strike Information System
ICAO	International Civil Aviation Organization

ILS	Instrument Landing System
PAPI	Precision Approach Path Indicator
QFU	Magnetic orientation of runway
RESA	Runway End Safety Area
SLAAIIB	Sierra Leone Aircraft Accident and Incident Investigation Bureau
SMS	Safety Management System
UTC	Universal time coordinate

2 AERODROME ACCIDENT/INCIDENT REPORTING AND INVESTIGATION PROCEDURES

2.1 Aerodrome Occurrence Reporting

This AC prescribes the requirements and procedures for reporting the detection of defects, failures or malfunctions at an aerodrome and their rate of occurrences, it also looks at the components or equipment which could jeopardise the safe operations of the aerodrome or cause it to become a danger to persons or property. The objectives of an Aerodrome Occurrence Report are as follows:

- (a) To ensure knowledge of these occurrences is disseminated so that other persons and organizations may learn from them.
- (b) To enable an assessment to be made by those concerned (internally or externally to the aerodrome operator) of the safety implications of each occurrence, both in itself and in relation to previous similar occurrences, so that necessary actions will be initiated.

2.2 Reportable Occurrences and Reporting Procedures

- (a) An aerodrome operator shall notify the Authority of any accident, incident whether minor or resulting to fatal or serious injury, occurring at his aerodrome, in accordance with the aerodrome operator's approved standard operating procedures or as soon as practicable, and should also provide a detailed occurrence report thereafter (using the prescribed occurrence reporting form specified in Appendix 1 of this AC)..
- (b) The Aerodrome Operator shall report any of the following occurrences;
 - (i) A near collision requiring an avoidance manoeuvre to avoid a collision, or an unsafe situation or where an avoidance action would have been appropriate.
 - (ii) Collision between moving aircraft and any other aircraft, vehicle or other ground object
 - (iii) Wing tip collision between aircrafts
 - (iv) A controlled flight into terrain only marginally avoided
 - (v) An aborted take-off on a closed or engaged runway.
 - (vi) A take-off from a closed or engaged runway with marginal separation from an obstacle.
 - (vii) A landing or attempted landing on a closed or engaged runway

Aerodrome Accident And Incident Reporting

- (viii) A take-off or landing incident such as undershooting, overrunning or running off the side of runways, or movement of persons or vehicles in the movement area without authorization from ATC.
 - (ix) A major failure of any navigation aid when a runway is in use.
 - (x) Apron jet or prop blast incidents that could have resulted in significant damage or serious injury.
 - (xi) Collision between vehicles, or vehicle and ground servicing equipment (GSE)
 - (xii) FOD and wildlife on the runway that strikes an aircraft
 - (xiii) Bird strike of an aircraft or abnormal bird concentrations
 - (xiv) Failure or significant malfunction of Aerodrome lighting system during an aircraft's approach or take off
 - (xv) Failure of facility or procedure used in airside operations
 - (xvi) Incorrect transmission, receipt or interception of radio telephone messages (ground to air or ground to ground)
 - (xvii) Presence of any wild animal in the operational areas likely to affect safe operations
 - (xviii) Breaches of airside driving rules resulting in a hazard to aircraft operations
 - (xix) Any incident that has jeopardized the safety of passengers/aerodrome personnel/public, and was avoided being an accident only by exceptional handling or good fortune
 - (xx) Any incident that causes trauma to passengers/aerodrome personnel/public or third party
 - (xxi) Any incident of fire which either necessitates the use of fire extinguishers or causes failure of any equipment or facility, or disturbs the smooth flow of air traffic or passengers.
- (c) The owner or operator of an aerodrome in Sierra Leone shall also notify the SLAAIIB when an accident or serious incident occurs on or adjacent to his aerodrome. In addition, the owner or operators of the aircraft shall also notify the SLAAIIB in the case of an accident elsewhere within Sierra Leone.
- (d) Information to be provided in the reporting and notification of an accident or incident shall at least include as far as possible, the following:
- (i) the date and local time of occurrence;
 - (ii) the exact location of the occurrence with reference to some easily defined geographical points;
 - (iii) detailed particulars of the parties involved, including the owner, operator, manufacturer, nationality, registration marks, serial numbers, assigned identities of aircraft and equipment;
 - (iv) a detailed description of the sequence of events leading up to the incident;

- (v) The physical characteristics, environment or circumstances of the area in which the incident occurred and an indication of the access difficulties or special requirements to reach the site;
- (vi) The identification of the person sending the notice and where the incident occurred, the means by which the investigator-in-charge may be contacted;
- (vii) in the case of an aircraft accident, the number of crew members, passengers or other persons respectively killed or seriously injured as a result of the accident; and
- (viii) a description of follow-up actions being taken after the incident has occurred

2.3 Aerodrome Occurrence Records

- (a) An aerodrome operator shall establish and maintain Aerodrome Occurrence Reports (AOR) for any accident, incident or serious incident whether minor or resulting to serious injury, or any occurrence or event that has a bearing on the safety of aerodrome operations.
- (b) AOR should be used by an aerodrome operator to monitor and improve the level of operational safety, including reviews of additional safety requirements.
- (c) The Authority may require the aerodrome operator to produce and provide information contained in the AOR relating to any safety occurrence or event. The Authority may review and analyse the information provided by the operator in the occurrence report to ensure that;
 - (i) occurrences are adequately analysed by the aerodrome operator
 - (ii) significant trends are identified and further in-depth analysis carried out as required, so that appropriate action(s) can be taken;
 - (iii) the most significant occurrences are carefully followed up by the Authority

2.4 Aerodrome Accident/Incident Investigations

- (a) In the event of an accident, incident or serious incident, the aerodrome operator shall carry out its own internal investigations.
- (b) The investigations carried out by the aerodrome operator shall be in addition to that carried out by the SLAAIIB.
- (c) The investigator, or team of investigators, shall be technically competent and shall either possess or have access to any background information required, so that the facts and events are interpreted accurately. The investigations shall be such as to understand how the mishap happened, why it occurred, including organisational contributing factors, and to recommend actions to prevent a recurrence. This activity conducted shall not be intended to apportion blame. The investigator should coordinate with all users of the aerodrome including aircraft operators, ground handling agencies, ANSPs and other relevant stakeholders to ensure accurate and complete data collection
- (d) The lessons learnt/derived from an aerodrome accident/incident investigation shall be disseminated to staff to provide feedback for safety improvement.

- (e) The Authority shall require the aerodrome operator to produce and provide information contained in the aerodrome accident/incident investigation report relating to any such event.
- (f) An aerodrome operator shall inspect his aerodrome, as circumstances require, ensuring safety as soon as practicable after any aircraft accident or incident.

3 CRITICAL DATA RELATED TO SAFETY OCCURRENCES REPORTED AT AERODROMES FOR THE MONITORING OF SAFETY.

Note - The provisions in this chapter do not override the requirements in the SLCAR Part13 - Aircraft Accident and Incident Investigation, concerning the mandatory reporting of certain types of accidents/serious incidents, and the responsibilities of the various parties involved.

3.1 Introduction

When safety occurrences of the following types are reported, the following critical data shall be collected and provided to the Authority. This may require collaborative effort from the aerodrome operator, ANSP or other involved parties commensurate with the severity of the potential risk attached to each occurrence. In addition to the separate data to be collected for each of the safety occurrences listed from 3.2 to 3.10 below, the following information in paragraph (a) – (d) should also be obtained;

- (a) Detailed particulars of the parties involved, including the owner, operator, manufacturer, nationality, registration marks, serial numbers, assigned identities of aircraft and equipment;
- (b) A detailed description of the sequence of events leading up to the incident;
- (c) in the case of an aircraft accident, the number of crew members, passengers or other persons respectively killed or seriously injured as a result of the accident; and
- (d) A description of follow-up actions being taken after the incident has occurred.

3.2 Runway Excursion

- (a) type of event (lateral veer-off, overrun);
- (b) landing/take-off;
- (c) type of approach if it is a landing event (local time or UTC);
- (d) date and time (local time or UTC);
- (e) aeroplane type;
- (f) runway:
 - (i) dimensions (width/length);
 - (ii) slopes;
 - (iii) displaced threshold (yes/no, and if so, distance between the runway threshold and the runway edge);

- (iv) runway end safety area (RESA) (yes/no, and if so, orientation, dimensions and structure);
- (v) contaminated runway (yes/no, and if so, contaminant type (slush, snow, ice, water, other (to be specified), contaminant depth);
- (e) wind (direction and speed);
- (f) visibility;
- (g) details of the exit:
 - (i) exit speed or estimation;
 - (ii) aeroplane angle with the runway edge;
 - (iii) distance between the touchdown and the exit;
 - (iv) description of the trajectory of the aeroplane once on the runway strip and/or RESA;
- (h) Details of the location of the aeroplane once stopped.

Note - For overruns, information to be reported includes longitudinal position in relation to the threshold location and/or end of runway surface and lateral position in relation to runway lateral edge or runway centre line.

Note - Runway excursions are serious incidents if not accidents (according to the SLCAR Part 13). The aerodrome operator should involve the SLAAIIB, and coordination with the relevant authorities is therefore required.

3.3 Undershoot (Land Short of Runway)

- (a) type of event (land short, undershoot);
- (b) type of approach;
- (c) ground-based vertical guidance available and operational (instrument landing system (ILS), precision approach path indicator (PAPI), abbreviated precision approach path indicator (APAPI));
- (d) date and time (local time or UTC);
- (e) wind speed (including gusts), description (calm/variable) and direction;
- (f) visibility;
- (g) aeroplane type;
- (h) runway:
 - (i) dimensions (width/length);
 - (ii) slopes;
 - (iii) displaced threshold (yes/no), and if so, distance between the runway threshold and the runway edge;
 - (iv) RESA (yes/no), and if so, magnetic orientation of runway (QFU), dimensions and structure;

- (v) contaminated runway (yes/no), and if so, contaminant type (slush, snow, ice, water, other (to be specified), contaminant depth);
- (i) details of the undershoot (aeroplane speed at touchdown, distance between the touchdown and the runway edge, causes of the event):
- (j) Description of the trajectory of the aeroplane after touchdown.

Note - Undershoots are serious incidents if not accidents, according (according to the SLCAR Part 13). The aerodrome operator should involve the SLAIIIB, and coordination with the relevant authorities is therefore required.

3.4 Runway Incursion

- (a) entities involved (aeroplane/vehicle; aeroplane/aeroplane; aeroplane/person);
- (b) date and time (local time or UTC);
- (c) aeroplane type, landing/take-off, type of approach;
- (d) vehicle type, location;
- (e) runway:
 - (i) dimensions (width/length);
 - (ii) slopes/line of sight;
 - (iii) displaced threshold (yes/no), and if so, distance between the runway threshold and the runway edge;
 - (iv) rapid exits;
 - (v) wind;
 - (vi) visibility;
- (f) details of the incursion:
 - (i) description of the trajectories and speeds of both vehicles/aeroplanes;
 - (ii) estimated distances (horizontal and vertical) between the entities involved;
 - (iii) Contaminated operational surfaces in the incursion area (yes/no), and if so, contaminant type (water, other (to be specified), contaminant depth).

Note - Runway incursions classified with Severity A, are serious incidents (according to the SLCAR Part 13). The aerodrome operator should involve the SLAIIIB, and coordination with the relevant authorities is therefore required.

Note - Guidance on prevention of runway incursions, including severity classification, is available in SLCAA-AC-AGA033-Rev.00 - Runway Incursion Prevention Measures.

3.5 Landing or Take-off on a Taxiway

- (a) landing/take-off;
- (b) type of approach when relevant;
- (c) date and time (local time or UTC);

- (d) wind;
- (e) visibility;
- (f) aeroplane type;
- (g) taxiway:
- (h) dimensions (width/length);
- (i) slopes;
- (j) details of the event:
- (k) Possible contributing factors (e.g. inadequate lighting, procedure not applied, works, inadequate or misleading marking).

Note - Landing and take-off on taxiways are serious incidents (according to the SLCAR Part 13). The aerodrome operator should involve the SLAAIIB, and coordination with the relevant authorities is therefore required.

3.6 FOD-Related Events

- (a) type of event;
- (b) location (runway, orientation, or taxiway, stand), location of FOD, including where possible lateral and longitudinal positions;
- (c) date and time (local time or UTC);
- (d) FOD description:
 - (i) name (if possible);
 - (ii) shape and dimensions;
 - (iii) material
 - (iv) colour;
 - (v) origin (if known: lighting, infrastructure, works, animals, aeroplane, environment wind, etc.)

3.7 Other Excursions (i.e. from Taxiways or Apron)

- (a) type of event;
- (b) location;
- (c) date and time (local time or UTC)
- (d) aeroplane type;
- (e) taxiway:
 - (i) dimensions (width/length)
 - (ii) slopes;
 - (iii) if in a curved section: fillets (yes/no), and characteristics);

- (iv) contaminated taxiway (yes/no), and if so, contaminant type (slush, snow, ice, water, other (to be specified) and contaminant depth;
- (f) wind (direction and speed);
- (g) details of the exit (exit speed or estimation, aeroplane angle with the taxiway edge, in a straight or a curved section, causes of the event);
- (h) Details of the location of the aeroplane once stopped.

3.8 Other Incursions

(I.e. on taxiways or apron). Same data as for runway incursion above.

3.9 Birds/Wildlife Strike-Related Events

To be conducted in accordance with the Authority's wildlife hazard reporting system data (ingestion, collision). If there has been no collision and the animal was avoided, it is important to know the location of the animal at the time the avoided collision occurred.


Note - Further details on the reporting of bird/wildlife strike related event is given in SLCAA-AC-AGA010B-Rev.00 - Procedure for Reporting Bird/Wildlife Strike.

3.10 Ground Collisions

- (a) type of event (ground collision);
- (b) location:
 - (i) apron;
 - (ii) manoeuvring area;
 - (iii) runway, taxiway;
 - (iv) contaminant (if relevant: type and depth);
 - (v) wind (if relevant);
- (c) date and time (local time or UTC);
- (d) phase of flight (e.g. taxi out, departure roll, engine start/pushback);
- (e) aeroplane(s) involved;
- (f) type of aeroplane and trajectory;
- (g) vehicle(s) involved;
- (h) type of vehicle and trajectory;
- (i) material damages (to both aeroplane(s) and/or vehicle(s))/human
- (j) damages and location/areas of the damages;
- (k) phase of operation, if ground handling is involved;
- (l) description of the collision;
- (m) estimated speed of both vehicle(s) and/or aeroplane(s);
- (n) Description of the trajectories of the aeroplane(s) and/or the vehicle(s).

Note - Ground collisions involving aeroplanes can be; incidents, serious incidents or accidents. If classified as an incident, they are normally investigated as part of the aerodrome's SMS. If classified as a serious incident or accident, the SLAAIIB should become involved, and coordination with the relevant authorities is therefore required.

APPENDIX 1 – OCCURRENCE REPORTING FORM

	<p>SIERRA LEONE CIVIL AVIATION AUTHORITY</p> <p>SAFETY OCCURRENCE REPORTING AT A AERODROMES</p>	<p>Form No: AC-AGA045 Rev.00</p>		
<p>Note:</p> <ul style="list-style-type: none"> i. The purpose of this form is to satisfy the mandatory requirements to inform the Authority of any reportable incident and/or issues (occurrence). Accordingly this report must be submitted to the Authority as soon as practicable following the events depicted below and in all cases not more than 8 hours. ii. For additional comments or continuation of Narrative, attach numbered pages and record number of additional pages iii. Please scan and email this form and any attachments to aerodromeinfo@slcaa.gov.sl or mail to the address below iv. Items marked with * are mandatory v. ** For Phase of Flight at Time of Incident, enter one of the following: Parked, Pushback, Taxi, Take-off, Climb Descent, Approach, Landing, Go-around, Under Tow, Circuit or N/A vi. *** For Type of Service enter one of the following: Passenger, Cargo, General Aviation, Aircraft Maintenance, Military, Repositioning, Training or Other(s) (Specify) vii. For wildlife incidents, please fill out form AC-010B Rev00 				
I. GENERAL				
Type of Incident	<input type="checkbox"/> Damage to Aircraft <input type="checkbox"/> Taxiway Incursion <input type="checkbox"/> Cargo Related Incident <input type="checkbox"/> Fuel/Fluids Incident <input type="checkbox"/> FOD Related Incident <input type="checkbox"/> Collision/Strike Object <input type="checkbox"/> Passenger Related Incident <input type="checkbox"/> Evacuation <input type="checkbox"/> Runway Incursion <input type="checkbox"/> Fire/Explosion/Fumes <input type="checkbox"/> Emergency Declaration <input type="checkbox"/> Others (Specify) <input type="checkbox"/> Manoeuvring Area Excursion <input type="checkbox"/> Injuries to Persons <input type="checkbox"/> Equipment/Infrastructure/System Failure or Malfunction			
Aerodrome *	Date * (dd-mm-yyyy)	Time of Incident * (GMT)	Location of Incident (Designator)	<input type="checkbox"/> Runway <input type="checkbox"/> Terminal <input type="checkbox"/> Taxiway <input type="checkbox"/> Hanger <input type="checkbox"/> Apron <input type="checkbox"/> Building <input type="checkbox"/> Bay <input type="checkbox"/> Other (Specify)
Flight Phase	<input type="checkbox"/> Parked <input type="checkbox"/> Taxiing <input type="checkbox"/> Take-off <input type="checkbox"/> Climb <input type="checkbox"/> Hover <input type="checkbox"/> Cruise <input type="checkbox"/> Circuit <input type="checkbox"/> Aerobatics <input type="checkbox"/> Holding <input type="checkbox"/> Decent <input type="checkbox"/> Approach <input type="checkbox"/> Landing <input type="checkbox"/> Agriculture			
Effect on Flight <i>If weather is a significant factor include in description of occurrence</i>	<input type="checkbox"/> Nil <input type="checkbox"/> Flight delayed/cancelled <input type="checkbox"/> Aborted take-off <input type="checkbox"/> Failure to get airborne <input type="checkbox"/> Emergency/precautionary decent <input type="checkbox"/> Emergency landing <input type="checkbox"/> Go-around/missed approach <input type="checkbox"/> Abnormal approach <input type="checkbox"/> Diversion <input type="checkbox"/> Turn-back <input type="checkbox"/> Engine(s) shutdown <input type="checkbox"/> Significant loss of control/performance <input type="checkbox"/> Avoiding action <input type="checkbox"/> Overweight landing <input type="checkbox"/> Abnormal landing <input type="checkbox"/> Runway excursion <input type="checkbox"/> Other (specify) <input style="width:150px; height:15px;" type="text"/>			

Aerodrome Accident And Incident Reporting

II. AIRCRAFT/VEHICLES INVOLVED AND PHASE OF FLIGHT								
Operator	Flight No.	Aircraft Reg. or Vehicle ID	Aircraft/Vehicle Type	Route From	Route To	Phase of Flight **	Type of Service ***	
III. METEOROLOGICAL CONDITIONS AT TIME OF INCIDENT								
<input type="checkbox"/> Day <input type="checkbox"/> Dawn	<input type="checkbox"/> Dusk <input type="checkbox"/> Night	Visibility		Ceiling (feet)	Wind (Dir. / Speed)	Temperature (C°)	Precipitation	
		VIS	RVR					
							<input type="checkbox"/> Yes <input type="checkbox"/> No	
IV. AERODROME CONDITIONS AT TIME OF INCIDENT								
Aerodrome Surface Conditions		Contamination Type			Emergency Response Services			
<input type="checkbox"/> Dry <input type="checkbox"/> Damp <input type="checkbox"/> Flooded	<input type="checkbox"/> Wet <input type="checkbox"/> Water Patches	<input type="checkbox"/> Fuel <input type="checkbox"/> Water <input type="checkbox"/> FOD	<input type="checkbox"/> Rubber <input type="checkbox"/> Oil/Hydraulic <input type="checkbox"/> Chemical	<input type="checkbox"/> Sand <input type="checkbox"/> Fluid <input type="checkbox"/> Mud	<input type="checkbox"/> Full Emergency <input type="checkbox"/> Domestic Response <input type="checkbox"/> Dangerous Goods <input type="checkbox"/> Aircraft Ground Incident	<input type="checkbox"/> Local Standby <input type="checkbox"/> Off Airport Crash <input type="checkbox"/> On Airport Crash		
V. AERODROME OCCURENCE								
<input type="checkbox"/> Physical surface deficiency <input type="checkbox"/> Physical obstruction <input type="checkbox"/> Public protection deficiency <input type="checkbox"/> Injuries to persons		<input type="checkbox"/> Surface marking deficiency <input type="checkbox"/> Equipment/installation deficiency <input type="checkbox"/> Others (specify) <input style="width: 150px;" type="text"/>		<input type="checkbox"/> Apron management deficiency <input type="checkbox"/> Wildlife incursion				
VI. DANGEROUS GOOD								
<input type="checkbox"/> Spillage/leakage <input type="checkbox"/> Others (specify) <input style="width: 250px;" type="text"/>		<input type="checkbox"/> Fumes/gas/smoke/fire		<input type="checkbox"/> Miss/non-declaration				
VII. DESCRIPTION OF THE INCIDENT								
Name of Reporting Officer *	Signature	Job Title	Department *					

FOR OFFICIAL USE

Occurrence Reference Number:

Assigned Inspector:

Note: The objective of reporting occurrences is to provide information for the Sierra Leone Civil Aviation Authority to improve flight safety. This is achieved by analysis of safety-related trends so that preventative actions may be taken. Therefore, your cooperation in notifying, reporting and investigating safety-related occurrences is requested so that together we can achieve a safer aviation environment.

Please complete and forward this form and supporting documentation to the:

The Director General,
Sierra Leone Civil Aviation Authority:
3rd / 4th Floor, National Development Bank Building,
21/23 Siaka Stevens Street, Freetown,
Sierra Leone.
Phone: +232 75 954 925
Email: info@slcaa.gov.sl Cc: aerodromeinfo@slcaa.gov.sl
