



ESTABLISHMENT OF THE AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION BUREAU

SECTION 1 POLICY & GENERAL INFORMATION

1.1 GENERAL

This Advisory Circular (AC) is issued by the Commissioner responsible for Aviation and contains information about standards, practices and procedures on notification of aircraft accidents and serious incidents.

1.2 PURPOSE

This AC is issued to provide information and guidance on aircraft accidents and serious incident notification system.

1.3 STATUS OF THIS ADVISORY CIRCULAR

This is an original issuance of this AC.

1.4 APPLICABILITY

This AC is applicable to all aviation stakeholders including all individuals, companies, organizations, etc. that are connected with aircraft operation in one way or the other. It is also applicable to individuals who are not involved with operation of aircraft but who may witness/discover an aircraft accident/incident anywhere.

1.5 RELATED REGULATIONS

The following Legislation and Regulations are directly applicable to the guidance contained in this advisory circular—

Aircraft Accident and Incident Investigation and Prevention Act, 2020 (Act 1028).

Aircraft Accident and Serious Incident Regulations, 2019, LI 2375

1.6 RELATED PUBLICATIONS

For further information on this topic, individuals, organizations and other entities are invited to consult the following publications—

- 1) International Civil Aviation Organization (ICAO)
 - ◆ Annex 13, Aircraft Accident and Incident Investigation.
 - ◆ ICAO Doc. 9756, Manual of Aircraft Accident and Incident Investigations (Parts I, II, III & IV).
 - ◆ ICAO Doc. 9962, Manual of Accident and Incident Investigation Policies and Procedures.

SECTION 2 DEFINITIONS, ABBREVIATIONS & ACRONYMS

A. The following definitions apply to this advisory circular:

Accident.

An occurrence associated with the operation of an aircraft which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

- a) a person is fatally or seriously injured as a result of:
 - i) being in the aircraft, or
 - ii) direct contact with any part of the aircraft, including parts which have become detached from the aircraft or
 - iii) direct exposure to jet blast except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally not available to the passengers and crew; or
- b) the aircraft sustains damage or structural failure which:
 - i) adversely affected the structural strength, performance or flight characteristics of the aircraft, and
 - ii) would normally require major repair or replacement of the affected component, except for engines failure or damage, when the damage is limited to a single engine, including its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tyres, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes) or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or
- c) the aircraft is missing or is completely inaccessible.

Aircraft accident.

An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:

- a) A person is fatally or seriously injured as a result of –
- b) Being in the aircraft;
- c) Direct contact with any part of the aircraft, including parts which have become detached from the aircraft; or

- d) Direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew.
- e) The aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin; or the aircraft is missing or is completely inaccessible.

Dangerous goods accident.

An occurrence associated with and related to the transport of dangerous goods which results in fatal or serious injury to a person or major property damage.

Dangerous goods incident.

An occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods, not necessarily occurring on board an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods which seriously jeopardises an aircraft or its occupants is deemed to constitute a dangerous goods incident.

Dangerous goods transport document.

A document specified by the ICAO Technical Instructions for the Safe Transportation of Dangerous Goods by Air. It is completed by the person who offers dangerous goods for air transport and contains information about those dangerous goods. The document bears a signed declaration indicating that the dangerous goods are fully and accurately described by their proper shipping names and UN numbers (if assigned) and that they are correctly classified, packed, marked, labelled and in a proper condition for transport.

Fatal injury.

As relates to an aircraft accident, any injury which results in death within 30 days of the accident. (ICAO Annex 13)

Flight recorder.

Any type of recorder installed in the aircraft for the purpose of complementing accident/incident investigation.

Incident.

An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Investigation.

A process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and or contributing factors and, when appropriate, the making of safety recommendations.

Investigator-in-charge (IIC).

A person charged, on the basis of his or her qualification, with the responsibility for the organization, conduct and control of an investigation.

Occurrence.

In relation to an aircraft, this means any incident which-

- a) Endangers or which, if not corrected, would endanger an aircraft, its occupants or any other person; or
- b) Resulted in an accident.

Operator.

A person, organization or enterprise engaged in or offering to engage in aircraft operation.

Serious incident.

An incident involving circumstances indicating that there was a high probability of an accident and associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down.

Serious injury.

An injury which is sustained by a person in an accident and which:

- a) requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received; or
- b) results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
- c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- d) involves injury to any internal organ; or
- e) involves second or third degree burns, or any burns affecting more than 5 per cent of the bureau surface; or
- f) involves verified exposure to infectious substances or injuries radiation.

B. The following abbreviations/acronyms are used in this advisory circular—

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| 1) AIB | – | Aircraft Accident and Incident Investigation and Prevention Bureau |
| 2) AIP | – | Aeronautical Information Publication |
| 3) GCAA | – | Ghana Civil Aviation Authority |
| 4) ICAO | – | International Civil Aviation Organization |
| 5) IIC | – | Investigator-in-Charge |
| 6) IICf | – | Investigator-in-Chief |

SECTION 3

The Aircraft Accident and Incident Investigation and Prevention Bureau (AIB) was established by the Aircraft Accident and Incident Investigation and Prevention Bureau Act 2020, (Act 1028). As an autonomous institution, it encapsulates the vision of Ghana to provide globally acceptable standards of aircraft safety, in line with the Standards and Recommended Practices (SARPs) of International Civil Aviation Organization (ICAO) as well as Banjul Accord Group Accident Investigation Agency (BAGAIA) principles and practices.

Mandate

The mandate of the Bureau is to investigate, prevent, regulate and oversee the management of aircraft accidents and incidents that occur in Ghana; the Accra Flight Information Region (FIR), and to provide for related matters.

Objectives of the Bureau

The objectives of the Bureau are to

- prevent the occurrence of aircraft accidents and incidents in Ghana;
- investigate aircraft accidents and incidents that occur in Ghana;
- Regulate and oversee the processes and standards in investigating aircraft accidents and incidents in Ghana; and manage matters relating to aircraft accidents and incidents in Ghana.

Functions of the Bureau

1. To achieve the objectives, the Bureau shall
 - a) investigate aircraft accidents and incidents;
 - b) ensure due compliance with Annex 13 of the Chicago Convention and the Protocols, Technical Instructions, Guidance and Procedures from the International Civil Aviation Organization in respect of the investigation of aircraft accidents and incidents as provided for in Regulations made under section 39;
 - c) establish procedures for the conduct of investigations in accordance with the Annex 13 of the Chicago Convention;
 - d) promote and improve safety in aviation through
 - (i) the independent investigation of aircraft accidents and incidents, and
 - (ii) the prevention of aircraft accidents and incidents;
 - e) determine the causes of and contributing factors to aircraft accidents and incidents;
 - f) prepare and submit reports to the appropriate authority to enhance the progress of investigations into aircraft accidents or incidents;
 - g) advise the Minister on matters relating to
 - (i) aircraft accidents and incidents; and
 - (ii) the investigation and prevention of aircraft accidents and incidents;
 - h) make safety recommendations, where applicable;

- i) establish and maintain an up-to-date laboratory, hangar or such other facility, necessary for carrying out the functions of the Bureau;
 - j) establish institutions for training personnel for the investigation of aircraft accidents or incidents that occur in Ghana;
 - k) collate and analyze safety data and promptly exchange safety information as part of the State Safety Programme;
 - l) protect and preserve records on aircraft accidents and incidents;
 - m) provide the families and survivors of aircraft accidents or incidents, with information on the aircraft accidents or incidents, in a timely-manner; and
 - n) perform any other function under this Act.
2. The Bureau may, for the purpose of co-operation, enter into agreements with regional and international bodies and Contracting States for the purpose of investigating aircraft accidents and incidents.

SECTION 5 AIB RESPONSE

Upon notification of an accident or serious incident occurring within Ghana, the AIBC will liaise with air traffic control, the aircraft and airport operators, police, and emergency services to ensure that evidence associated with the occurrence is secured and to determine AIB response.

SECTION 6 APPENDICES

The following documents have been attached to this AC as appendices:

- (a) List of examples of serious incidents
- (b) Accident and Serious Incidents Occurrence Form

APPENDIX 1**List of examples of Serious Incidents**

Below is a non-exhaustive list of typical examples of incidents that are likely to be serious incidents:

- i. Near collisions requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate.
- ii. Collisions not classified as accidents.
- iii. Controlled flight into terrain only marginally avoided.
- iv. Aborted take-offs on –
 - (a) a closed or engaged runway;
 - (b) an unassigned runway; or
 - (c) a taxiway (excluding any aborted take-off by a helicopter, which take-off had been authorised by the aerodrome operator and the aerodrome control tower).
- v. Take-offs from –
 - (a) a closed or engaged runway;
 - (b) an unassigned runway; or
 - (c) a taxiway (excluding any take-off by a helicopter that is authorised by the aerodrome operator and the aerodrome control tower).
- vi. Landings or attempted landings on –
 - (a) a closed or engaged runway;
 - (b) an unassigned runway; or
 - (c) a taxiway (excluding any landing or attempted landing by a helicopter, which landing had been authorised by the aerodrome operator and the aerodrome control tower).
- vii. Gross failures to achieve predicted performance during take-off or initial climb.
- viii. Fires and/or smoke in the cockpit, in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the
- ix. use of extinguishing agents.
- x. Events requiring the emergency use of oxygen by the flight crew.
- xi. Aircraft structural failures or engine disintegrations, including uncontained
- xii. turbine engine failures, not classified as an accident.
- xiii. Multiple malfunctions of one or more aircraft systems seriously affecting the
- xiv. operation of the aircraft.
- xv. Flight crew incapacitation in flight.
- xvi. Fuel quantity level or distribution situations requiring the declaration of an emergency by the pilot, such as insufficient fuel, fuel exhaustion, fuel starvation, or inability to use all usable fuel on board.
- xvii. Take-off or landing incidents. Incidents such as undershooting, overrunning over-running off the side of runways.
- xviii. System failures, weather phenomena, operations outside the approved flight envelope or other occurrences which caused or could have caused difficulties controlling the aircraft.
- xix. Failures of more than one system in a redundancy system mandatory for flight guidance and navigation.
- xx. The unintentional or, as an emergency measure, the intentional release of a slung load or any other load carried external to the aircraft.
- xxi. Runway incursions in which a collision is narrowly avoided.

APPENDIX 2

Accident and Serious Incidents Occurrence Form