

**CIVIL AVIATION DEPARTMENT
HONG KONG, CHINA**

Accident Investigation Bulletin

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INTERPRETATION ON TERMINOLOGIES

1 Introduction

- 1.1 Annex 13 to the Convention on International Civil Aviation “Aircraft Accident and Incident Investigation” (Annex 13) states the international standards and recommended practices applicable to aircraft accident and serious incident investigation. Chapter 1 of Annex 13 provides interpretation on certain terminologies.
- 1.2 The purpose of this Bulletin is to supplement the interpretation on terminologies used during an accident investigation process.

2 Interpretations

When the following terms are used during an investigation, they have the following meanings:

- 2.1 **Accident investigation authority.** The authority designated by a State as responsible for aircraft accident and incident investigations within the context of Annex 13.
- 2.2 **Accredited representative.** A person designated by a State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State. Where the State has established an accident investigation authority, the designated accredited representative would normally be from that authority.
- 2.3 **Adviser.** A person appointed by a State, on the basis of his or her qualifications, for the purpose of assisting its accredited representative in an investigation.
- 2.4 **Aircraft.** Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface.
- 2.5 **Causes.** Actions, omissions, events, conditions, or a combination thereof, which led to the accident or incident. The identification of causes does not imply the assignment of fault or the determination of administrative, civil or

criminal liability.

- 2.6 **Contributing factors.** Actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident or incident occurring, or mitigated the severity of the consequences of the accident or incident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil or criminal liability.
- 2.7 **Flight recorder.** Any type of recorder installed in the aircraft for the purpose of complementing accident/incident investigation.
- 2.8 **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.
- 2.9 **Investigator-in-charge.** A person charged, on the basis of his or her qualifications, with the responsibility for the organisation, conduct and control of an investigation.
- 2.10 **Maximum mass.** Maximum certificated take-off mass.
- 2.11 **Preliminary Report.** The communication used for the prompt dissemination of data obtained during the early stages of the investigation.
- 2.12 **Safety recommendation.** A proposal of the accident investigation authority of the State conducting the investigation, based on information derived from the investigation, made with the intention of preventing accidents or incidents.
- 2.13 **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. An incident involving circumstances indicating that an accident nearly occurred.

Note: The difference between an accident and a serious incident lies only in the result. The incidents listed below are typical examples of incidents as stated in Attachment C of the Annex 13 that are likely to be serious incidents. The list is not exhaustive and only serves as guidance to the definition of serious incident.

Examples of Serious Incident:

- Near collisions requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate.

- Collisions not classified as accidents.
- Controlled flight into terrain only marginally avoided.
- Aborted take-offs on a closed or engaged runway, on a taxiway¹ or unassigned runway.
- Take-offs from a closed or engaged runway, from a taxiway¹ or unassigned runway.
- Landings or attempted landings on a closed or engaged runway, on a taxiway¹ or unassigned runway.
- Gross failures to achieve predicted performance during take-off or initial climb.
- 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 use of extinguishing agents.
- Events requiring the emergency use of oxygen by the flight crew.
- Aircraft structural failures or engine disintegrations, including uncontained turbine engine failures, not classified as an accident.
- Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft.
- Flight crew incapacitation in flight.
- 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.
- Runway incursions classified with severity A. The Manual on the Prevention of Runway Incursions (Doc 9870) contains information on the severity classifications.
- Take-off or landing incidents. Incidents such as undershooting, overrunning or running off the side of runways.
- System failures, weather phenomena, operations outside the approved flight envelope or other occurrences which caused or could have caused difficulties controlling the aircraft.
- Failures of more than one system in a redundancy system mandatory for flight guidance and navigation.
- The unintentional or, as an emergency measure, the intentional release of a slung load or any other load carried external to the aircraft.

2.14 **Serious injury.** An injury which is sustained by a person in an accident and which:

- a) requires his stay in hospital for more than 48 hours commencing within 7 days from the date on which the injury was received; or

¹ Excluding authorised operations by helicopters.

- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
 - c) involves lacerations which cause nerve, muscle or tendon damage or severe haemorrhage; 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 body surface; or
 - f) involves verified exposure to infectious substances or injurious radiation.
- 2.15 **State of Design.** The State having jurisdiction over the organisation responsible for the type design.
- 2.16 **State of Manufacture.** The State having jurisdiction over the organisation responsible for the final assembly of the aircraft.
- 2.17 **State of Occurrence.** The State in the territory of which an accident or incident occurs.
- 2.18 **State of the Operator.** The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.
- 2.19 **State of Registry.** The State on whose register the aircraft is entered.
- 2.20 **State safety programme.** An integrated set of regulations and activities aimed at improving safety.

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