

# CAR ACC

# AIRCRAFT ACCIDENT & INCIDENT

# **INVESTIGATION REGULATIONS**

FOREWORD

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**REVISION RECORD** 

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## FOREWORD

- 1. The Republic of San Marino Civil Aviation Authority, known in these regulations as the "Authority" has implemented CAR ACC (Civil Aviation Regulations Aircraft Accident and Incident Investigation).
- 2. The structure and substance of these regulations is based on Annex 13 to the Convention on International Civil Aviation.
- 3. Unless otherwise stated, applicable CAR DEF definitions and abbreviations are used throughout this document.
- 4. The editing practices used in this document are as follows:
  - (a) 'Shall' or 'Will' or 'Must' is used to indicate a mandatory requirement.
  - (b) 'Should' is used to indicate a recommendation.
  - (c) 'May' is used to indicate discretion by the Authority, the industry or the applicant, as appropriate.

Note: The use of the male gender implies the female gender and vice versa.

5. Paragraphs and sub-paragraphs with new, amended and corrected text will be enclosed within brackets until a subsequent "amendment" is issued.



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# **REVISION RECORD**

REVISION NO.	EFFECTIVE DATE	<b>ENTERED BY</b> (Hardcopy only)
Initial Issue (Rev 00)	01 April 2015	
Rev 01	01 December 2016	
Rev 02	01 January 2019	
Rev 03	01 January 2021	
Rev 04	01 December 2022	



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#### CHAPTER 1

## DEFINITIONS

#### **1.1 DEFINITIONS**

As used in these regulations, the following words or phrases are defined as follows:

**Aircraft Accident** means 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 and the time 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:
  - (1) being in the aircraft, or
  - (2) direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
  - (3) 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; or

- (b) the aircraft sustains damage or structural failure which:
  - (1) adversely affects the structural strength, performance or flight characteristics of the aircraft, and
  - (2) would normally require major repair or replacement of the affected component,

except for engine failure or damage, when the damage is limited to a single engine (including its, its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, 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.
- *Note:* An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Accident investigation authority. The authority designated by a State as responsible for aircraft accident and incident investigations within the context of these regulations.

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. The accredited representative would normally be from the State's accident investigation authority.



Advisor 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.

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.

Authorised Person A person authorised by the Authority, either generally or specifically, to have access to any aircraft involved in an accident or incident.

**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.

Civil Aircraft means any aircraft registered in an ICAO Contracting State.

**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.

Fatal Injury means any injury, which results in death within 30 days of the accident.

Flight Recorder Any type of recorder installed in the aircraft for the purpose of complimenting accident/incident investigation.

Note: Flight recorder includes (D) FDR, CVR, QAR, and memory devices (such as FADEC, FMS)

**Incident** means 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 and incident prevention, which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations.

**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.

Maximum mass means maximum certified take-off mass

**Operator** means a person, organisation or enterprise engaged in or offering to engage in aircraft operation.

**Preliminary Report** The communication used for the prompt dissemination of data obtained during the early stages of the investigation.

**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 and which in no case has the purpose of creating a presumption of blame or liability for an accident or incident. In addition to safety recommendations arising from accident and incident investigations, safety recommendations may result from diverse sources, including safety studies.

Safety recommendation of global concern (SRGC). A safety recommendation regarding a systemic deficiency having a probability of recurrence, with significant consequences at a global level, and requiring timely action to improve safety.

**Serious incident** means 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.

There may be a high probability of an accident if there are few or no safety defences remaining to prevent the incident from progressing to an accident. To determine this, an event risk-based analysis, that takes into account the most credible scenario had the incident escalated and the effectiveness of the remaining defences between the incident and the potential accident, can be performed as follows:

- (a) consider whether there is a credible scenario by which this incident could have escalated into an accident; and
- (b) assess the remaining defences between the incident and the potential accident as:
  - (1) effective, if several defences remained and needed to coincidently fail; or
  - (2) limited, if few or no defences remained, or when the accident was only avoided due to providence.

Consider both the number and robustness of the remaining defences between the incident and the potential accident. Ignore defences that already failed, and consider only those which worked and any subsequent defences still in place.

- Note 1: The most credible scenario refers to the realistic assessment of injury and/or damage resulting from the potential accident.
- Note 2:Defences include crew, their training and procedures, ATC, alerts (within and outside the aircraft), aircraft systems and redundancies, structural design of the aircraft and aerodrome infrastructure. The combination of these two assessments helps in determining which incidents are serious incidents:

		b) Remaining defences between the incident and the potential accident	
		Effective	Limited
a) Most anadible secondria	Accident	Incident	Serious Incident
a) Most credible scenario	No accident	Incid	lent

- Note: The following incidents are examples of incidents that may be serious incidents. However, the list is not exhaustive and, depending on the context, items on the list may not be classified as serious incidents if effective defences remained between the incident and the credible scenario.
  - (a) Near collisions requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate.
  - (b) Collisions not classified as accidents.



- (c) Controlled flight into terrain only marginally avoided.
- (d) Aborted take-offs on a closed or engaged runway, on a taxiway\* or unassigned runway.
- (e) Take-offs from a closed or engaged runway, from a taxiway\* or unassigned runway.
- (f) Landings or attempted landings on a closed or engaged runway on a taxiway\*, unassigned runway or unintended landing locations such as roadway.
- (g) Retraction of a landing gear leg or wheels-up landing not classified as an accident.
- (h) Dragging during landing of a wing tip, an engine pod or any other part of the aircraft, when not classified as an accident.
- (i) Gross failures to achieve predicted performance during take-off or initial climb.
- (j) Fires and 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.
- (k) Events requiring the emergency use of oxygen by the flight crew.
- (1) Aircraft structural failures or engine disintegrations, including uncontained turbine engine failures, not classified as an accident.
- (m) Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft.
- (n) Flight crew incapacitation in flight;
  - (1) For single pilot operations (including remote pilot);
  - (2) For multi-pilot operations for which flight safety was compromised because of a significant workload for the remaining crew.
- (o) 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.
- (p) Runway incursions classified with severity A.

Note: The Manual on the Prevention of Runway Incursions (Doc 9870) contains information on the severity classifications.

- (n) Take-off or landing incidents. Incidents, such as undershooting, overrunning or running off the side of runways.
- (o) System failures (including loss of power or thrust), weather phenomena, operations outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft.
- (p) Failures of more than one system in a redundancy system mandatory for flight guidance and navigation.

(q) The unintentional or, as an emergency measure, the intentional release of a slung load or any other load carried external to the aircraft.

Note\*: Excluding authorised operations by helicopters.

Serious Injury means any injury, which is sustained by a person in an accident and which:

- (a) requires hospitalisation for more than 48 hours, commencing within 7 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; or
- (c) involve 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 body surface; or
- (f) involves verified exposure to infectious substances or injurious radiation.

State of Design The State having jurisdiction over the organisation responsible for the type design.

State of Manufacture The State having jurisdiction over the organisation responsible for the final assembly of the aircraft.

State of Occurrence The State in the territory of which an accident or incident occurs.

**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.

State of Registry The State on whose register the aircraft is entered.

State Safety Programme (SSP). An integrated set of regulations and activities aimed at improving safety.



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## CHAPTER 2

# APPLICABILITY

## 2.1 Scope

Unless otherwise stated, these regulations apply to activities following accidents and incidents involving civil aircraft wherever they occurred and apply:

- (a) to occurrences, which occur to civil aircraft in the territory of San Marino; or
- (b) to such occurrences, which occur elsewhere involving civil aircraft registered in San Marino.

## 2.2 Competent Authority

- (a) In these regulations the specifications concerning the State of the Operator apply only when an aircraft is leased, chartered or interchanged and when that State is not the State of Registry and if it discharges, in respect of these regulations, in part or in whole, the functions and obligations of the State of Registry.
- (b) Under San Marino Law, the Authority is the Competent Authority responsible for the conduct of civil aircraft accident investigation.
- (c) The Authority shall establish an accident investigation authority that is independent from State aviation authorities and other entities that could interfere with the conduct or objectivity of an investigation.
- (d) [Until that accident investigation authority is established by the Ministry, the Authority shall ensure that an accident investigation conducted in accordance with this CAR ACC is independent from all entities that could interfere with the conduct or objectivity of an investigation.]
- (e) The Authority, in accordance with a signed agreement with the Italian Agenzia Nazionale per la Sicurezza del Volo (ANSV) and pursuant to paragraph (c) above, may delegate the whole or any part of the investigation to the Italian ANSV.



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## **CHAPTER 3**

## GENERAL

## **3.1 OBJECTIVE OF THE INVESTIGATION**

The sole objective of the investigation of an accident or incident shall be the prevention of accidents and incidents. It is not the purpose of this activity to apportion blame or liability.

## **3.2 PROTECTION OF EVIDENCE, CUSTODY AND REMOVAL OF AIRCRAFT**

## 3.2.1 Responsibility of the Authority, as State of Occurrence

The Authority, as the State of Occurrence, shall take all reasonable measures to protect the evidence and to maintain safe custody of the aircraft and its contents for such a period as may be necessary for the purposes of an investigation. Protection of evidence shall include the preservation, by photographic or other means of any evidence, which might be removed, effaced, lost or destroyed. Safe custody shall include protection against further damage, access by unauthorised persons, pilfering and deterioration.

*Note: The protection of flight recorder's evidence requires that the recovery and handling of the recorder and its recordings be assigned only to qualified personnel.* 

## **3.2.2 Protection of Evidence**

- (a) When a reportable accident occurs in the territory of San Marino, no person other than an authorised person shall have access to the aircraft involved in the accident and neither the aircraft nor its contents shall, except under the authorisation of the Authority, be removed or otherwise interfered with.
- (b) The aircraft may be removed or interfered with so far as may be necessary for the purpose of extricating persons or animals, removing any mails, valuables and dangerous goods carried by the aircraft, preventing destruction by fire or other cause, or preventing any danger or obstruction to the public or to air navigation or to other transport or, under the supervision of an Investigator or of the Police, for the purpose of removing any other property from the aircraft;
- (c) Should the aircraft be wrecked on water, the aircraft or any of its contents may be removed to such extent as may be necessary for bringing it or them to a place of safety.
- (d) The operator of an aircraft involved in an accident or incident for which notification must be given is responsible for preserving to the extent possible any aircraft wreckage and cargo aboard the aircraft and all records, including all recording mediums of flight, maintenance, and data recorders pertaining to the operation and maintenance of the aircraft and to the crew, until the Authority takes custody thereof and a release is granted.
- (e) Where it is necessary to move aircraft wreckage or cargo, sketches, descriptive notes, and photographs shall be made by the accident investigator, or if none available by the on-site authority, if possible, of the original position and condition of the wreckage and any significant impact marks.
- (f) The operator of an aircraft involved in an accident or incident shall retain all records, reports, internal documents, and memoranda dealing with the accident or incident, until authorised by the Authority to the contrary.



## 3.3 Requests from State of Registry/Operator/Design or Manufacturer

If a request is received from the State of Registry, the State of the Operator, the State of Design or the State of Manufacturer that the aircraft, its contents, any other evidence remain undisturbed pending inspection by an accredited representative of the requesting State, the Authority as the State of Occurrence, shall take all necessary steps to comply with such request, so far as this is reasonably practicable and compatible with the proper conduct of the investigation; provided that the aircraft may be moved to the extent necessary to extricate persons, animals, mails and valuables, to prevent destruction by fire or other causes, or to eliminate any danger or obstruction to air navigation, to other transport or to the public, and provided that it does not result in undue delay in returning the aircraft to service where this is practicable.

# 3.4 Release from Custody

Subject to the provisions of paragraphs 3.2.2 and 3.3 above, the Authority, as the State of Occurrence, shall release custody of the aircraft, its contents or any parts thereof as soon as they are no longer required by the Authority in the investigation, to any person or persons duly designated by the State of Registry or the State of the Operator, as applicable. For this purpose the Authority shall facilitate access to the aircraft, its contents, or any parts thereof, provided that, if the aircraft, its contents or any parts thereof, lie in an area within which the Authority finds it impracticable to grant such access, it shall itself effect removal to a point where access can be given.

# 3.5 Retained Evidence

After the investigation is complete, the Authority shall have the right to retain any evidence it considers of importance.

# 3.6 Disposal of Aircraft, Wreckage or Parts

Once authorised by the Authority, the Operator shall be responsible for the prompt removal of the aircraft, or wreckage and/or parts of such aircraft located in the territory of San Marino. In the event of the failure to comply, the aircraft and/or parts will be removed and the cost of removal will be paid by the operator.



#### **CHAPTER 4**

## NOTIFICATION

#### 4.1 **RESPONSIBILITY OF THE STATE OF OCCURRENCE**

#### 4.1.1 Forwarding

- (a) The State of Occurrence shall forward a notification of an accident, a serious incident, or an incident to be investigated within the context of this Annex, with a minimum of delay and by the most suitable and quickest means available, to:
  - (1) the State of Registry;
  - (2) the State of the Operator;
  - (3) the State of Design;
  - (4) the State of Manufacture; and
  - (5) the International Civil Aviation Organisation, when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane.
- (b) However, when the State of Occurrence is not aware of a serious incident, or an incident to be investigated, the State of Registry or the State of the Operator, as appropriate, shall forward a notification of such an incident to the State of Design, the State of Manufacture and the State of Occurrence.
  - Note: Telephone, facsimile, e-mail or the Aeronautical Fixed Telecommunication Network (AFTN) will in most cases constitute "the most suitable and quickest means available". More than one means of communication may be appropriate.

#### 4.1.2 Format and content

The notification shall be in plain language and contain as much of the following information as is readily available, but its dispatch shall not be delayed due to the lack of complete information:

- (a) for accidents the identifying abbreviation ACCID, for serious incidents SINCID, for incidents INCID;
- (b) manufacturer, model, nationality and registration marks, and serial number of the aircraft;
- (c) name of owner, operator and hirer, if any, of the aircraft;
- (d) qualification of the pilot-in-command, and nationality of crew and passengers;
- (e) date and time (local time or UTC) of the accident or incident;
- (f) last point of departure and point of intended landing of the aircraft;
- (g) position of the aircraft with reference to some easily defined geographical point and latitude and longitude;

- (h) number of crew and passengers; aboard, killed and seriously injured; others, killed and seriously injured;
- (i) description of the accident or serious incident and the extent of damage to the aircraft so far as is known;
- (j) an indication to what extent the investigation will be conducted or is proposed to be delegated by the State of Occurrence;
- (k) physical characteristics of the accident or incident area, as well as an indication of access difficulties or special requirements to reach the site;
- (1) identification of the originating authority and means to contact the investigator-in-charge and the accident investigation authority of the State of Occurrence at any time; and
- (m) presence and description of dangerous goods on board the aircraft.

# 4.1.3 Language

The notification shall be prepared in the English language.

# 4.1.4 Additional information

As soon as it is possible to do so, the State of Occurrence shall dispatch the details omitted from the notification as well as other known relevant information.

# 4.2 **RESPONSE BY THE AUTHORITY AS STATE OF REGISTRY OR OPERATOR**

## 4.2.1 Information and Participation

- (a) The Authority, as either the State of Registry or the State of the Operator, shall acknowledge receipt of the notification of an accident or incident.
- (b) Upon receipt of the notification, the Authority, as either the State of Registry or the State of the Operator shall, as soon as possible, provide the State of Occurrence with any relevant information available to them regarding the aircraft and flight crew involved in the accident or incident. Each State shall also inform the State of Occurrence whether it intends to appoint an accredited representative and if such an accredited representative is appointed the name and contact details; as well as the expected date of arrival if the accredited representative will travel to the State of Occurrence.
  - Note 1: The Authority, as either the State of Registry or the State of the Operator has the right to appoint an accredited representative to participate in the investigation.
  - Note 2: The Authority, as either the State of Registry or the State of the Operator is obliged to appoint an accredited representative when specifically requested to do so by the State conducting the investigation of an accident to an aircraft over 2 250 kg.
- (c) Upon receipt of the notification, the Authority shall, with a minimum of delay and by the most suitable and quickest means available, provide the State of Occurrence with details of dangerous goods on board the aircraft.



# 4.3 **RESPONSIBILITY OF THE AUTHORITY AS THE STATE OF REGISTRY**

## 4.3.1 Forwarding

When the Authority, as the State of Registry, institutes the investigation of an accident or incident, which occurred in San Marino, or in a non-Contracting State, or outside the territory of any State, the Authority shall forward a notification, in accordance with 4.1 and 4.2 above, with a minimum of delay and by the most suitable and quickest means available, to:

- (a) the State of the Operator;
- (b) the State of Design;
- (c) the State of Manufacture; and
- (d) the International Civil Aviation Organisation, when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane.
  - Note: Telephone, facsimile, e-mail or the Aeronautical Fixed Telecommunication Network (AFTN) will in most cases constitute "the most suitable and quickest means available". More than one means of communication may be appropriate.

## 4.4 **RESPONSIBILITY OF THE AUTHORITY AS THE STATE OF THE OPERATOR**

- (a) The Authority, as the State of the Operator, shall acknowledge receipt of the notification of an accident or incident.
- (b) Upon receipt of the notification, the Authority shall, upon request, provide the State of Registry with any relevant information available to them regarding the flight crew and the aircraft involved in the accident or incident. The Authority shall also inform the State of Registry whether it intends to appoint an accredited representative, and if such an accredited representative is appointed the name and contact details; as well as the expected date of arrival if the accredited representative will be present at the investigation.
  - Note 1: The Authority, as either the State of Registry or the State of the Operator has the right to appoint an accredited representative to participate in the investigation.
  - Note 2: The Authority, as either the State of Registry or the State of the Operator is obliged to appoint an accredited representative when specifically requested to do so by the State conducting the investigation of an accident to an aircraft over 2 250 kg.
- (c) Upon receipt of the notification, the Authority as the State of the Operator shall, with a minimum of delay and by the most suitable and quickest means available, provide the State of Registry with details of dangerous goods on board the aircraft.



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#### CHAPTER 5

#### **INVESTIGATION**

## 5.1 **RESPONSIBILITY FOR THE INVESTIGATION**

#### 5.1.1 State of Occurrence

- (a) The Authority, as the State of Occurrence, shall institute an investigation into the circumstances of the accident and be responsible for the conduct of the investigation, but it may delegate the whole or any part of the conducting of such investigation to another State or a regional accident and incident investigation organisation by mutual arrangement and consent. In any event, the State of Occurrence shall use every means to facilitate the investigation.
- (b) The State of Occurrence should institute an investigation into the circumstances of a serious incident. Such a State may delegate the whole or any part of the conducting of such investigation to another State or a regional accident and incident investigation organization by mutual arrangement and consent. In any event the State of Occurrence should use every means to facilitate the investigation.
- (c) The Authority, as the State of Occurrence, shall institute an investigation into the circumstances of a serious incident when the aircraft is of a maximum mass of over 2 250 kg. Such a State may delegate the whole or any part of the conducting of such investigation to another State or a regional accident and incident investigation organisation by mutual arrangement and consent. In any event the State of Occurrence should use every means to facilitate the investigation.
- (d) If the State of Occurrence does not institute and conduct an investigation, and does not delegate the investigation to another State or a regional accident and incident investigation organization, as set out in (a) and (c), the State of Registry or, in the following order, the State of the Operator, the State of Design or the State of Manufacture is entitled to request in writing the State of Occurrence to delegate the conducting of such investigation. If the State of Occurrence gives express consent or does not reply to such a request within 30 days, the State making the request should institute and conduct the investigation with such information as is available.
  - Note 1; The investigation of a serious incident does not exclude other already existing types of investigation of incidents (serious or not) by other organisations.
  - Note 2: When the whole investigation is delegated to another State or a regional accident investigation organisation, such a State is expected to be responsible for the conduct of the investigation, including the issuance of the Final Report and the ADREP reporting. When a part of the investigation is delegated, the State of Occurrence usually retains the responsibility for the conduct of the investigation.
  - Note 3: In the case of investigation of an unmanned aircraft system, only aircraft with a design and/or operational approval are to be considered.
  - Note 4: In the case of serious incidents, the State of Occurrence may consider delegating the investigation to the State of Registry or the State of the Operator, in particular those involving occurrences in which it might be beneficial or more practical for one of these States to conduct the investigation.
  - Note 5: The delegation of an investigation does not absolve the State of Occurrence from its obligation under these regulations.

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# 5.1.2 State of Registry

- (a) When the accident or incident has occurred in the territory of a non-Contracting State which does not intend to conduct an investigation in accordance with Annex 13, the Authority, as either the State of Registry or the State of the Operator, should endeavour to institute and conduct an investigation in cooperation with the State of Occurrence but, failing such cooperation, should itself conduct an investigation with such information as is available.
- (b) When the location of the accident or incident cannot definitely be established as being in the territory of any State, the Authority, as the State of Registry, shall institute and conduct any necessary investigation of the accident or serious incident. However, it may delegate the whole or any part of the investigation to another State or regional accident and investigation organisation by mutual arrangement and consent.
- (c) If the State of Registry does not institute and conduct an investigation, and does not delegate the investigation to another State or a regional accident and incident investigation organization, the State of the Operator or, in the following order, the State of Design, or the State of Manufacture is entitled to request in writing the State of Registry to delegate the conducting of such investigation. If the State of Registry gives express consent or does not reply to such a request within 30 days, the State making the request should institute and conduct the investigation with such information as is available.

# 5.2 ORGANISATION AND CONDUCT OF THE INVESTIGATION

## 5.2.1 General

- (a) The Authority shall have independence in the conduct of the investigation and have unrestricted authority over its conduct, consistent with the provisions of these regulations. The investigation shall normally include:
  - (1) the gathering, recording and analysis of all relevant information on that accident or incident;
  - (2) the protection of certain accident and incident investigation records in accordance with paragraph 5.2.7
  - (3) if appropriate, the issuance of safety recommendations;
  - (4) if possible, the determination of the causes and/or contributing factors; and
  - (5) the completion of the final report.
- (b) Where feasible, the scene of the accident shall be visited, the wreckage examined and statements taken from witnesses. The extent of the investigation and the procedure to be followed in carrying out such an investigation shall be determined by the accident investigation authority, depending on the lessons it expects to draw from the investigation for the improvement of safety.
- (c) Any investigation conducted in accordance with the provisions of these regulations shall be separate from any judicial or administrative proceedings to apportion blame or liability.



- Note: Separation can be achieved by the investigation being conducted by State accident investigation authority experts, and any judicial or administrative proceedings being conducted by other appropriate experts. Coordination between the two processes would likely be required at the accident site and in the gathering of factual information, with due consideration to the non-disclosure provisions.
- (d) The accident investigation authority shall develop documented policies and procedures detailing its accident investigation duties. These should include: organisation and planning; investigation; and reporting.
- (e) The Authority shall ensure that any investigations conducted under the provisions of these regulations have unrestricted access to all available evidential material without delay.
- (f) The Authority should ensure cooperation between its accident investigation authorities and judicial authorities so that an investigation is not impeded by administrative or judicial investigations or proceedings.
  - Note.1: Cooperation may be achieved by legislation, protocols, agreements or other arrangements, and may cover the following subjects: access to the site of the accident; preservation of and access to evidence; initial and on-going debriefings of the status of each process; exchange of information; appropriate use of safety information; and resolution of conflicts.
  - Note 2: Nothing in the following provisions is intended to preclude the State conducting the investigation from calling upon the best technical expertise from any source.

## 5.2.2 Investigator-in-charge

- (a) The Authority, as the State conducting the investigation, shall designate the investigator-in-charge of the investigation and shall initiate the investigation immediately.
- (b) The investigator-in-charge shall have unhampered access to the wreckage and all relevant material, including flight recorders and ATS records, and shall have unrestricted control over it to ensure that a detailed examination can be made without delay by authorised personnel participating in the investigation.

## 5.2.3 Flight recorders — Accidents and incidents

- (a) Effective use shall be made of flight recorders in the investigation of an accident or an incident. The Authority, as the State conducting the investigation, shall arrange for the read-out of the flight recorders without delay.
- (b) In the event that the Authority does not have adequate facilities to read out the flight recorders, it shall use the facilities made available to it by other States, giving consideration to the following:
  - (1) the capabilities of the read-out facility;
  - (2) the timeliness of the read-out; and
  - (3) the location of the read-out facility.
- (c) Effective use shall be made of available ground-based recordings in the investigation of an accident or an incident.



## 5.2.4 Autopsy and medical examinations

- (a) The Authority, as the State conducting the investigation into a fatal accident, shall arrange for complete autopsy examination of fatally injured flight crew and, subject to the particular circumstances, of fatally injured passengers and cabin attendants, by a pathologist, preferably experienced in accident investigation. These examinations shall be expeditious and complete.
- (b) When appropriate, the Authority as the State conducting the investigation should arrange for medical examination of the crew, passengers and involved aviation personnel, by a physician, preferably experienced in accident investigation. These examinations should be expeditious.

Note: Such examinations may also determine whether the level of physical and psychological fitness of flight crew and other personnel directly involved in the occurrence is sufficient for them to contribute to the investigation.

# 5.2.5 Coordination — Judicial authorities

The Authority, as the State conducting the investigation, shall recognize the need for coordination between the investigator-in-charge and the judicial authorities. Particular attention shall be given to evidence which requires prompt recording and analysis for the investigation to be successful, such as the examination and identification of victims and read-outs of flight recorder recordings.

# 5.2.6 Informing aviation security authorities

If, in the course of an investigation it becomes known, or it is suspected, that an act of unlawful interference was involved, the investigator-in-charge shall immediately initiate action to ensure that the aviation security authorities of the State(s) concerned are so informed.

# 5.2.7 Protection of accident and incident investigation records

(See also Appendix 1 to Chapter 5)

- (a) The Authority conducting the investigation of an accident or incident shall not make the following records available for purposes other than accident or incident investigation, unless the competent authority designated by that State determines in accordance with national laws and subject to the Appendix to Chapter 5 that their disclosure or use outweighs the likely adverse domestic and international impact such action may have on that or any future investigations:
  - (1) cockpit voice recordings and airborne image recordings any transcripts from such recordings;
  - (2) records in the custody or control of the accident investigation authority being;
    - (i) all statements taken from persons by the investigation authorities in the course of their investigation;
    - (ii) all communications between persons having been involved in the operation of the aircraft;
    - (iii) medical or private information regarding persons involved in the accident or incident;
    - (iv) recordings and transcripts of recordings from air traffic control units;

- (v) analysis of and opinions about information, including flight recorder information, made by the accident investigation authority and accredited representatives in relation to the accident or incident; and
- (vi) the draft Final Report of an accident or incident investigation.
- *Note:* The Authority shall determine whether any other records obtained or generated by the accident investigation authority, as a part of an accident or incident investigation, need to be protected in the same way.
- (b) These records shall be included in the Final Report or its appendices only when pertinent to the analysis of the accident or incident. Parts of the records not relevant to the analysis shall not be disclosed.
  - Note: The records listed above in paragraph (2)(a), include information related to an accident or incident. The disclosure or use of such information for purposes where the disclosure or use is not necessary in the interest of safety means that, in the future, the information will no longer be openly disclosed to investigators. Lack of access to such information would impede the investigation process and seriously affect aviation safety.
- (c) The names of the persons involved in the accident or incident shall not be disclosed to the public by the accident investigation authority.
- (d) The Authority shall ensure that requests for records in the custody or control of the accident investigation authority are directed to the original source of the information, where available.
- (e) The accident investigation authority should retain, where possible, only copies of records obtained in the course of an investigation.
- (f) The Authority shall take measures to ensure that audio content of cockpit voice recordings as well as image and audio content of airborne image recordings are not disclosed to the public.
- (g) The Authority, if issuing or receiving a draft Final Report, shall take measures to ensure that it is not disclosed to the public.
  - *Note:* The Appendix to Chapter 5 contains additional provisions on the protection of accident and incident investigation records and form part of these regulations.

# 5.2.8 Reopening of investigation

If, after the investigation has been closed, new and significant evidence becomes available, the Authority, as the State which conducted the investigation shall reopen it. However, when the State which conducted the investigation did not institute it, that State shall first obtain the consent of the State which instituted the investigation.

*Note:* Where an aircraft which was considered missing following an official search is subsequently located, consideration may be given to reopening the investigation.

# 5.3 **PROVISION OF INFORMATION BY THE AUTHORITY**

## 5.3.1 Information — Accidents and incidents



- (a) The Authority shall, on request from the State conducting the investigation of an accident or an incident, provide that State with all the relevant information available to it.
- (b) Where facilities or services of which have been, or would normally have been, used by an aircraft prior to an accident or an incident, and which has information pertinent to the investigation, the Authority shall provide such information to the State conducting the investigation.
- (c) The Authority should cooperate with other States to determine the limitations on disclosure or use that will apply to information before it is exchanged between them for the purposes of an accident or incident investigation.

# 5.4 RESPONSIBILITY OF THE STATE OF REGISTRY AND STATE OF THE OPERATOR

# 5.4.1 Flight recorders — Accidents and serious incidents

When an aircraft involved in an accident or a serious incident lands in a State other than the State of Occurrence, the Authority, as the State of Registry or the State of the Operator shall, on request from the State conducting the investigation, furnish the latter State with the flight recorder records and, if necessary, the associated flight recorders.

*Note:* The Authority, as either the State of Registry or the State of the Operator, may request the cooperation of any other State in the retrieval of the flight recorder records.

# 5.4.2 Organisational information

The Authority, as either the State of Registry and the State of the Operator, on request from the State conducting the investigation, shall provide pertinent information on any organisation whose activities may have directly or indirectly influenced the operation of the aircraft.

# 5.5 PARTICIPATION IN THE INVESTIGATION CONDUCTED BY THE AUTHORITY

## 5.5.1 Rights

(a) The State of Registry, the State of the Operator, the State of Design and the State of Manufacture shall each be entitled to appoint an accredited representative to participate in the investigation.

Note 1:States that designed or manufactured the powerplant or major components of the aircraft may request participation in the investigation of an accident.

*Note 2: Accredited representative and advisers of a State do not have to be always present in the State in which the investigation is conducted.* 

- (b) The State of Registry or the State of the Operator shall be entitled to appoint one or more advisers proposed by the operator, to assist its accredited representative.
- (c) When neither the State of Registry, nor the State of the Operator appoints an accredited representative, the Authority shall invite the operator to participate, subject to any procedures considered by the Authority.
- (d) The State of Design and the State of Manufacture shall be entitled to appoint one or more advisers, proposed by the organisations responsible for the type design and the final assembly of the aircraft, to assist their accredited representatives.

- (e) When neither the State of Design nor the State of Manufacture appoints an accredited representative, the Authority shall invite the organisations responsible for the type design and the final assembly of the aircraft to participate.
- (f) Any State which on request provides information, facilities or experts to the Authority shall be entitled to appoint an accredited representative to participate in the investigation.
  - Note: Any State that provides an operational base for field investigations, or is involved in search and rescue or wreckage recovery operations, or is involved as a State of a code-share or alliance partner of the operator, may also be invited to appoint an accredited representative to participate in the investigation.

## 5.5.2 Obligations

When the Authority, as the State conducting an investigation of an accident to an aircraft of a maximum mass of over 2 250 kg specifically requests participation by the State of Registry, the State of the Operator, the State of Design or the State of Manufacture, the State(s) concerned shall each appoint an accredited representative.

- Note 1:Nothing precludes the Authority, as the State conducting an investigation, from requesting the State that designed or manufactured the powerplant or major components of the aircraft to appoint an accredited representative whenever the Authority believes that a useful contribution can be made to the investigation or when such participation might result in increased safety.
- Note 2:Nothing precludes the Authority, as the State conducting an investigation, from requesting the State of Design and the State of Manufacture to give assistance in the investigation of any accident.

# 5.6 ENTITLEMENT OF ACCREDITED REPRESENTATIVES

## 5.6.1 Advisers

- (a) A State entitled to appoint an accredited representative shall also be entitled to appoint one or more advisers to assist the accredited representative in the investigation.
  - Note: Nothing precludes a State that is participating in an investigation from calling upon the best technical experts from any source and appointing such experts as advisers to its accredited representative.
- (b) Advisers assisting accredited representatives shall be permitted, under the accredited representatives' supervision, to participate in the investigation to the extent necessary to enable the accredited representatives to make their participation effective.

## 5.6.2 Participation

- (a) Participation in the investigation shall confer entitlement to participate in all aspects of the investigation, under the control of the investigator-in-change, in particular to:
  - (1) visit the scene of the accident;
  - (2) examine the wreckage;



- (3) obtain witness information and suggest areas of questioning;
- (4) have full access to all relevant evidence as soon as possible;
- (5) receive copies of all pertinent documents;
- (6) participate in read-outs of recorded media;
- (7) participate in off-scene investigative activities such as component examinations, technical briefings, tests and
- (8) simulations;
- (9) participate in investigation progress meetings including deliberations related to analysis, findings, causes, contributing factors and safety recommendations; and
- (10) make submissions in respect of the various elements of the investigation.
- (b) However, participation of States other than the State of Registry, the State of the Operator, the State of Design and the State of Manufacture may be limited to those matters which entitled such States to participation under paragraph 5.5.1(f) above.
  - Note 1: It is recognized that the form of participation would be subject to the procedures of the State in which the investigation, or part thereof, is being conducted.
  - *Note 2: The collection and recording of information need not be delayed to await the arrival of an accredited representative.*
  - *Note 3:Nothing precludes the State conducting the investigation from extending participation beyond the entitlement enumerated.*
  - Note 4: The pertinent documents referred to in subparagraph (a)(5) above also include documents such as the reports on examinations of components or studies performed within the framework of the investigation.

## 5.6.3 Obligations

Accredited representatives and their advisers;

- (a) shall provide the State conducting the investigation with all relevant information available to them; and
- (b) shall not divulge information on the progress and the findings of the investigation without the express consent of the State conducting the investigation.
  - *Note:* Nothing precludes the prompt release of facts when authorised by the State conducting the investigation, nor preclude accredited representatives from reporting to their respective States in order to facilitate appropriate safety actions.

## 5.6.4 Rights and entitlements of others

A State which has a special interest in an accident by virtue of fatalities or serious injuries to their citizens shall be entitled to appoint an expert who shall be entitled to:

- (a) visit the scene of the accident;
- (b) have access to the relevant factual information which is approved for public release by the State conducting the investigation, and information on the progress of the investigation; and
- (c) receive a copy of the Final Report.
- (d) This will not preclude the State from also assisting in the identification of victims and in meetings with survivors from that State.
  - *Note:* The Authority, as the State conducting the investigation should release, at least during the first year of the investigation, established factual information and indicate the progress of the investigation in a timely manner.



#### **APPENDIX TO CHAPTER 5**

#### PROTECTION OF ACCIDENT AND INCIDENT INVESTIGATION RECORDS

#### 1. **INTRODUCTION**

Note 1: The disclosure or use of records listed in paragraph 5.2.7, in criminal, civil, administrative or disciplinary proceedings, or their public disclosure, can have adverse consequences for persons or organizations involved in accidents and incidents, likely causing them or others to be reluctant to cooperate with accident investigation authorities in the future. The determination on disclosure or use required by 5.12 is designed to take account of these matters.

Note 2: Throughout this Appendix, the term;

"balancing test" refers to the determination by the competent authority, in accordance with paragraph 5.2.7, of the impact the disclosure or use of accident and incident investigation records may have on current or future investigations; and

"record(s)" refers to those listed in paragraph 5.2.7.

#### 2. GENERAL

- 2.1 The Authority shall accord the protections in paragraph 5.2.7 and this Appendix to the entire recording of the cockpit voice recorder and airborne image recorder, and any transcripts from such recordings. These protections shall apply from the time an accident or incident occurs and continue after the publication of the Final Report.
- 2.2 The Authority shall accord the protections in paragraph 5.2.7 and this Appendix to the other records listed in paragraph 5.2.7(a). These protections shall apply from the time they come into the custody or control of the accident investigation authority and continue after the publication of the Final Report.

#### Non-disclosure of audio or image recordings to the public

- 2.3 The Authority shall take action to achieve the non-disclosure of audio content of cockpit voice recordings as well as image and audio content of airborne image recordings to the public, as per paragraph 5.12.7(f), such as:
  - (a) prevention of disclosure through the adoption of national laws, regulations and policies; or
  - (b) adoption of authoritative safeguards such as protective orders, closed proceedings or incamera review; or
  - (c) prevention of disclosure of recordings, through technical means such as encrypting or overwriting, before returning the cockpit voice recorders or airborne image recorders to the owners.
  - Note: Ambient workplace recordings required by these regulations, such as cockpit voice recordings and airborne image recordings, may be perceived as constituting an invasion of privacy for operational personnel if they are disclosed or used for purposes other than those for which the recordings were made.

# **3. COMPETENT AUTHORITY**

In accordance with paragraph 5.2.7, each State shall designate a competent authority or competent authorities appropriate to the task of administering the balancing test.

Note: Different competent authorities may be designated for different circumstances. For example, the competent authority designated for applying the balancing test in criminal or civil proceedings may be a judicial authority. Another competent authority may be designated for applying the balancing test in cases where the purpose of the request for disclosure is for public accessibility.

# 4. ADMINISTRATION OF THE BALANCING TEST

- 4.1 Where the request is for a record to be disclosed or used in a criminal, civil, administrative or disciplinary proceeding, the competent authority shall be satisfied that a material fact in question in the proceedings cannot be determined without that record, before administering the balancing test.
  - Note: A material fact in question is a legal term used to refer to a fact that is significant or essential to the matter at hand; that one party alleges and that the other controverts; and is to be determined by the competent authority administering the balancing test.
- 4.2 When administering the balancing test, the competent authority shall take into consideration factors such as:
  - (a) the purpose for which the record was created or generated;
  - (b) the requester's intended use of that record;
  - (c) whether the rights or interests of a person or organization will be adversely affected by the disclosure or use of that record;
  - (d) whether the person or organization to whom that record relates has consented to make that record available;
  - (e) whether suitable safeguards are in place to limit the further disclosure or use of that record;
  - (f) whether that record has been or can be de-identified, summarized or aggregated;
  - (g) whether there is an urgent need to access that record to prevent a serious risk to health or life;
  - (h) whether that record is of a sensitive or restrictive nature; and
  - (i) whether that record reasonably indicates that the accident or incident may have been caused by an act or omission considered, in accordance with national laws and regulations, to be gross negligence, wilful misconduct, or done with criminal intent.
  - Note 1: The administration of the balancing test can be done once for a certain category of records and the result incorporated into national laws and regulations.
  - Note 2: The competent authority may need to administer a balancing test for determining whether to permit the disclosure of a record, and a separate balancing test for determining whether to permit the use of a record.

Note 3: Guidance material on the balancing test can be found in the Manual on Protection of Safety Information, Part I — Protection of Accident and Incident Investigation Records (Doc 10053).

# 5. **RECORDS OF THE DECISIONS**

The Authority should record the reasons for its determination when administering the balancing test. The reasons should be made available and referred to as necessary for subsequent decisions.

Note: The Authority may submit the decisions recorded to the International Civil Aviation Organization in one of the working languages of the Organization to be archived in a public database.

# 6. FINAL REPORT

In order to limit the use of the Final Report for purposes other than the prevention of accidents and incidents, the Authority should consider:

- (a) instituting a separate investigation for those other purposes; or
- (b) differentiating between the parts of the Final Report in order to allow the use of factual information contained therein while preventing use of analysis, conclusions and safety recommendations for apportioning blame or liability; or
- (c) preventing the use of the Final Report as evidence in proceedings to apportion blame or liability.
  - Note: Final Reports are publicly available in the interest of accident prevention and are not subject to protection under paragraph5.2.7. However, the use of portions of the Final Report, in particular the analysis, conclusions and safety recommendations, as evidence before national courts in view of assigning blame or determining liability is against the purposes for which the investigation was undertaken.

# 7. ACCIDENT AND INCIDENT INVESTIGATION PERSONNEL

In the interest of safety, the Authority should consider that accident investigation personnel not be compellable to give an opinion on matters of blame or liability in civil, criminal, administrative or disciplinary proceedings.



#### CHAPTER 6

## FINAL REPORT

## 6.1 **RESPONSIBILITY OF THE AUTHORITY**

The Authority shall not circulate, publish or give access to a draft report or any part thereof, or any documents obtained during an investigation of an accident or incident, without the express consent of the State which conducted the investigation, unless such reports or documents have already been published or released by that latter State.

## 6.2 **RESPONSIBILITY OF THE STATE CONDUCTING THE INVESTIGATION**

#### 6.2.1 Consultation

- (a) The Authority, as the State conducting the investigation, shall send a copy of the draft Final Report to the following States inviting their significant and substantiated comments on the report as soon as possible:
  - (1) the State that instituted the investigation;
  - (2) the State of Registry;
  - (3) the State of the Operator;
  - (4) the State of Design;
  - (5) the State of Manufacture; and
  - (6) any State that participated in the investigation as per Chapter 5.
- (b) If the Authority, as the State conducting the investigation, receives comments within sixty days of the date of the transmittal letter, it shall either amend the draft Final Report to include the substance of the comments received or, if desired by the State that provided comments, append the comments to the Final Report. If the Authority receives no comments within sixty days of the date of the first transmittal letter, it shall issue the Final Report, unless an extension of that period has been agreed by the States concerned.
  - Note 1:Nothing is intended to preclude the Authority from consulting other States, such as those States which provided relevant information, significant facilities, or experts who participated in the investigation.
  - Note 2: Comments to be appended to the Final Report are restricted to non-editorial-specific technical aspects of the Final Report upon which no agreement could be reached.
  - Note 3: When sending the draft Final Report to recipient States, the Authority may consider using the most suitable and quickest means available, such as facsimile, e-mail, courier service or express mail.
  - Note 4: Intended safety recommendations are to be included in the draft Final Report.
  - Note 5: The format of the Final Report in indicated in the Appendix to this Chapter. However, it may be adapted to the circumstances of the accident or incident.



- Note 6: The Authority should send, through the State of the Operator, a copy of the draft Final Report to the operator to enable the operator to submit comments on the draft Final Report.
- Note 7: The Authority should send, through the State of Design and the State of Manufacture, a copy of the draft Final Report to the organisations responsible for the type design and the final assembly of the aircraft to enable them to submit comments on the draft Final Report.

# 6.2.2 Recipient States

The Final Report of the investigation of an accident shall be sent with a minimum of delay by the State conducting the investigation to:

- (a) the State that instituted the investigation;
- (b) the State of Registry;
- (c) the State of the Operator;
- (d) the State of Design;
- (e) the State of Manufacture;
- (f) any State that participated in the investigation;
- (g) any State having suffered fatalities or serious injuries to their citizens; and
- (h) any State that provided relevant information, significant facilities or experts.

## 6.2.3 Release of the Final Report

(a) In the interest of accident prevention, the Authority, as the State conducting the investigation of an accident or incident, shall make the Final Report publicly available as soon as possible and, if possible, within twelve months.

*Note: Making a Final Report publicly available can be achieved by posting the Final Report on the Internet, and does not necessarily require a hard-copy publication of the Final Report.* 

- (b) If the report cannot be made publicly available within twelve months, the Authority shall make an interim statement publicly available on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues raised.
- (c) If the State conducting the investigation does not make the Final Report or an interim statement publicly available within a reasonable timeframe, other States participating in the investigation are entitled to request in writing from the State conducting the investigation express consent to release a statement containing safety issues raised with such information as is available.
- (d) If the State conducting the investigation gives express consent or does not reply to such a request within 30 days, the State making the request should release such a statement after coordinating with participating States.



(e) When the Authority, as the State that has conducted an investigation into an accident or an incident involving an aircraft of a maximum mass of over 5 700 kg, has released a Final Report, the Authority shall send to the International Civil Aviation Organisation a copy of the Final Report.

## 6.2.4 Safety recommendations

- (a) At any stage of the investigation of an accident or incident, the accident investigation authority shall recommend in a dated transmittal correspondence to the appropriate authorities, including those in other States, any preventive action that it considers necessary to be taken promptly to enhance aviation safety.
  - Note 1:Precedence for the issuance of safety recommendations from an accident or incident investigation should be given to the State conducting the investigation; however, in the interest of safety, other States participating in the investigation may issue safety recommendations after coordinating with the State conducting the investigation.
  - Note 2: Nothing in this Standard is intended to preclude the State conducting the investigation from consulting States participating in the investigation on its draft safety recommendations, inviting their comments on the appropriateness and effectiveness of these recommendations.
- (b) The Authority shall address, when appropriate, any safety recommendations arising out of its investigations in a dated transmittal correspondence to the accident investigation authorities of other State(s) concerned and, when ICAO documents are involved, to ICAO.
- (c) The Authority, when issuing a safety recommendation of global concern (SRGC) shall inform ICAO of the issuance of that recommendation and its responses in dated transmittal correspondence, even when the SRGC is not addressed to ICAO.
  - Note: When Final Reports contain safety recommendations addressed to ICAO, because ICAO documents are involved, these reports must be accompanied by a letter outlining the specific action proposed.

## 6.3 **RESPONSIBILITY WHEN RECEIVING OR ISSUING SAFETY RECOMMENDATIONS**

(a) A State that receives safety recommendations shall inform the proposing State, within ninety days of the date of the transmittal correspondence, of the preventive action taken or under consideration, or the reasons why no action will be taken.

Note: Nothing is intended to preclude the State conducting the investigation from making proposals for preventive action other than safety recommendations.

- (b) A State conducting the investigation or any other State issuing a safety recommendation shall implement procedures to record the responses to the safety recommendation issued.
- (c) A State that receives a safety recommendation shall implement procedures to monitor the progress of the action taken in response to that safety recommendation.
- (d) Precedence for the issuance of safety recommendations from an accident or incident investigation is given to the State conducting the investigation; however, in the interest of safety, other States participating in the investigation shall be entitled to issue safety recommendations after coordinating with the State conducting the investigation.

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*Note: Effective coordination of draft safety recommendations would avoid issuance of conflicting safety recommendations by the States participating in the investigation.* 



#### **APPENDIX TO CHAPTER 6**

## FORMAT OF THE FINAL REPORT

#### 1. PURPOSE

The purpose of this format is to present the Final Report in a convenient and uniform manner.

Note 1: Detailed guidance on completing each section of the Final Report is found in the Manual of Aircraft Accident and Incident Investigation (Doc 9756).

*Note 2: The Final Report is to be prepared in the English language.* 

## 2. FORMAT

- Title. The Final Report begins with a title comprising name of the operator; manufacturer, model, nationality and registration marks of the aircraft; place and date of the accident or incident.
- Synopsis. Following the title is a synopsis describing briefly all relevant information regarding notification of accident to national and foreign authorities; identification of the accident investigation authority and accredited representation; organization of the investigation; authority releasing the report and date of publication; and concluding with a brief résumé of the circumstances leading to the accident.
- Body. The body of the Final Report comprises the following main headings:
  - 1. Factual information
  - 2. Analysis
  - 3. Conclusions
  - 4. Safety recommendations

each heading consisting of a number of subheadings as outlined in the following.

Appendices. Include as appropriate.

*Note:* In preparing a Final Report, using this format, ensure that:

- (a) all information relevant to an understanding of the factual information, analysis and conclusions is included under each appropriate heading;
- (b) where information in respect of any of the items in 1.— Factual information is not available, or is irrelevant to the circumstances leading to the accident, a note to this effect is included under the appropriate subheadings.

## **1. FACTUAL INFORMATION**

1.1 History of the flight. A brief narrative giving the following information:



- Flight number, type of operation, last point of departure, time of departure (local time or UTC), point of intended landing.
- Flight preparation, description of the flight and events leading to the accident, including reconstruction of the significant portion of the flight path, if appropriate.
- Location (latitude, longitude, elevation), time of the accident (local time or UTC), whether day or night.
- 1.2 Injuries to persons. Completion of the following (in numbers):

Injuries	Crew	Passengers	Others
Fatal			
Serious			
Minor/None			

- *Note:* Fatal injuries include all deaths determined to be a direct result of injuries sustained in the accident. Serious injury is defined in Chapter 1 and CAR DEF.
- 1.3 Damage to aircraft. Brief statement of the damage sustained by aircraft in the accident (destroyed, substantially damaged, slightly damaged, no damage).
- 1.4 Other damage. Brief description of damage sustained by objects other than the aircraft.
- 1.5 Personnel information:
  - (a) Pertinent information concerning each of the flight crew members including: age, validity of licences, ratings, mandatory checks, flying experience (total and on type) and relevant information on duty time.
  - (b) Brief statement of qualifications and experience of other crew members.
  - (c) Pertinent information regarding other personnel, such as air traffic services, maintenance, etc., when relevant.
- 1.6 Aircraft information:
  - (a) Brief statement on airworthiness and maintenance of the aircraft (indication of deficiencies known prior to and during the flight to be included, if having any bearing on the accident).
  - (b) Brief statement on performance, if relevant, and whether the mass and centre of gravity were within the prescribed limits during the phase of operation related to the accident. (If not and if of any bearing on the accident give details.)
  - (c) Type of fuel used.
- 1.7 Meteorological information:
  - (a) Brief statement on the meteorological conditions appropriate to the circumstances including both forecast and actual conditions, and the availability of meteorological information to the crew.



- (b) Natural light conditions at the time of the accident (sunlight, moonlight, twilight, etc.).
- 1.8 Aids to navigation. Pertinent information on navigation aids available, including landing aids such as ILS, MLS, NDB, PAR, VOR, visual ground aids, etc., and their effectiveness at the time.
- 1.9 Communications. Pertinent information on aeronautical mobile and fixed service communications and their effectiveness.
- 1.10 Aerodrome information. Pertinent information associated with the aerodrome, its facilities and condition, or with the take-off or landing area if other than an aerodrome.
- 1.11 Flight recorders. Location of the flight recorder installations in the aircraft, their condition on recovery and pertinent data available therefrom.
- 1.12 Wreckage and impact information. General information on the site of the accident and the distribution pattern of the wreckage; detected material failures or component malfunctions. Details concerning the location and state of the different pieces of the wreckage are not normally required unless it is necessary to indicate a break-up of the aircraft prior to impact. Diagrams, charts and photographs may be included in this section or attached in the Appendices.
- 1.13 Medical and pathological information. Brief description of the results of the investigation undertaken and pertinent data available therefrom.

*Note: Medical information related to flight crew licences should be included in 1.5 — Personnel information.* 

- 1.14 Fire. If fire occurred, information on the nature of the occurrence, and of the fire fighting equipment used and its effectiveness.
- 1.15 Survival aspects. Brief description of search, evacuation and rescue, location of crew and passengers in relation to injuries sustained, failure of structures such as seats and seat-belt attachments.
- 1.16 Tests and research. Brief statements regarding the results of tests and research.
- 1.17 Organizational and management information. Pertinent information concerning the organizations and their management involved in influencing the operation of the aircraft. The organizations include, for example, the operator; the air traffic services, airway, aerodrome and weather service agencies; and the regulatory authority. The information could include, but not be limited to, organizational structure and functions, resources, economic status, management policies and practices, and regulatory framework.
- 1.18 Additional information. Relevant information not already included in 1.1 to 1.17.
- 1.19 Useful or effective investigation techniques. When useful or effective investigation techniques have been used during the investigation, briefly indicate the reason for using these techniques and refer here to the main features as well as describing the results under the appropriate subheadings 1.1 to 1.18.

# 2. ANALYSIS

Analyse, as appropriate, only the information documented in 1. — Factual information and which is relevant to the determination of conclusions and causes and/or contributing factors.

# 3. CONCLUSIONS

List the findings, causes and/or contributing factors established in the investigation. The list of causes and/or contributing factors should include both the immediate and the deeper systemic causes and/or contributing factors.

Note: The Final Report format presented in this Appendix may be adapted to the circumstances of the accident or incident. Thus, States may use either "causes" or "contributing factors", or both, in the Conclusions.

# 4. SAFETY RECOMMENDATIONS

As appropriate, briefly state any recommendations made for the purpose of accident prevention and identify safety actions already implemented.

# APPENDICES

Include, as appropriate, any other pertinent information considered necessary for the understanding of the report.



## **CHAPTER 7**

## ADREP REPORTING

#### 7.1 PRELIMINARY REPORT

#### 7.1.1 Accidents to Aircraft over 2250 kg

When the aircraft involved in an accident, is of a maximum mass of over 2250 kg, the Authority, if conducting the investigation, shall send the Preliminary Report to:

- (a) the State of Registry or the State of Occurrence, as appropriate;
- (b) the State of the Operator;
- (c) the State of Design;
- (d) the State of Manufacturer;
- (e) any State which provided relevant information, significant facilities or experts; and
- (f) the International Civil Aviation Organisation.

## 7.1.2 Accidents to Aircraft of 2250 kg or Less

When an aircraft of a maximum mass of 2250 kg or less is involved in an accident, and when airworthiness or matters considered to be of interest to other States are involved, the Authority, if conducting the investigation, shall forward the Preliminary Report to:

- (a) the State of Registry or the State of Occurrence, as appropriate;
- (b) the State of the Operator;
- (c) the State of Design;
- (d) the State of Manufacturer; and
- (e) any State, which provided relevant information, significant facilities or experts.

#### 7.1.3 Language

The Preliminary Report shall be submitted to appropriate States and to the International Civil Aviation Organisation in the English language.

## 7.1.4 Dispatch

The Preliminary Report shall be sent by facsimile, e-mail, or airmail within thirty days of the date of the accident unless the Accident/Incident Data Report has been sent by that time. When matters directly affecting safety are involved it shall be sent as soon as the information is available and by the most suitable and quickest means available.



# 7.2 ACCIDENT/INCIDENT DATA REPORT

# 7.2.1 Accidents to Aircraft over 2250 kg

When the aircraft involved in an accident is of a maximum mass of over 2250 kg, the Authority, if conducting the investigation, shall send, as soon as practicable after the investigation, the Accident Data Report to the International Civil Aviation Organisation.

## 7.2.2 Incidents Involving Aircraft over 5700 kg

When the Authority conducts an investigation into an incident to an aircraft of a maximum mass of over 5700 kg, the Authority shall send, as soon as is practicable after the investigation, the Incident Data Report to the International Civil Aviation Organisation.

## 7.2.3 Additional Information

The Authority, if conducting the investigation, should, upon request, provide other States with pertinent information additional to that made available in the Accident/Incident Data Report.



## **CHAPTER 8**

## ACCIDENT PREVENTION MEASURES

#### 8.1 Database and preventive actions

- (a) The Authority shall establish and maintain an accident and incident database to facilitate the effective analysis of information on actual or potential safety deficiencies and to determine any preventive actions required.
  - Note 1: State authorities responsible for the implementation of the SSP should have access to the accident and incident database referenced in 8.1(a) to support their safety responsibilities.
  - Note 2: An accident and incident database may be included in a safety database, which may refer to a single or multiple database(s). Further provisions on a safety database are contained in Annex 19 — Safety Management. Additional guidance is also included in the Safety Management Manual (SMM) (Doc 9859).
- (b) In addition to safety recommendations arising from accident and incident investigations, safety recommendations may result from diverse sources, including safety studies. If safety recommendations are addressed to an organisation in another State, they shall also be transmitted to that State's accident investigation authority.



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