



ICAO

Doc 9962

Manual on Accident and Incident Investigation Policies and Procedures

Second edition, 2019



Approved by and published under the authority of the Secretary General

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AMENDMENTS

Amendments are announced in the supplements to the *Products and Services Catalogue*; the Catalogue and its supplements are available on the ICAO website at www.icao.int. The space below is provided to keep a record of such amendments.

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FOREWORD

As a result of the ICAO Universal Safety Oversight Audit Programme (USOAP) audits and audit follow-ups, it was found that a number of States had developed and documented accident and incident investigation policies and procedures, often in the form of a manual on policies and procedures. In those cases, the manuals generally implemented the provisions of ICAO Annex 13 — *Aircraft Accident and Incident Investigation* as well as industry best practices and checklists for carrying out investigations. However, the USOAP audits also established that many States lacked this type of Annex 13 implementation tool and detailed guidance for carrying out investigations. The States that lacked such documented policies and procedures were found to have more audit findings than States that had a manual on policies and procedures in place.

During the Accident Investigation and Prevention (AIG) Divisional Meeting (2008) (AIG/08) held in Montréal from 13 to 18 October 2008, Recommendation 5/1 — *Amendment to Chapter 5* (Annex 13) was developed by the meeting that urged amendment of Annex 13, Chapter 5, to include a new Recommended Practice as part of the responsibility of the State conducting the investigation as follows:

“5.4.2 Recommendation.— *The accident investigation authority should develop documented policies and procedures detailing its accident investigation duties. These should include: organization and planning; investigation; and reporting”.*

Moreover, the AIG/08 meeting developed Recommendation 5/2 — *Accident Investigation Policies and Procedures Document*, which urged, “*That ICAO develop guidance in the form of a framework of documented policies and procedures for carrying out investigations, to be made available to States in an appropriate ICAO document*”. This manual is in response to that recommendation.

The guidance provided in this manual is intended for use by those States that do not have in place policies and procedures to meet the requirements of Article 26 of the Chicago Convention and the Standards and Recommended Practices (SARPs) of Annex 13. The content of this manual is consistent with, and is organized in accordance with, guidance materials contained in the:

Manual of Aircraft Accident and Incident Investigation (Doc 9756)

Part I — *Organization and Planning*

Part II — *Procedures and Checklists*

Part III — *Investigation* (in preparation)

Part IV — *Reporting*

The material contained herein is presented for the benefit of States to use as an implementation tool for the development of a State's policies and procedures manual for accident and incident investigation; it is consistent with best international practices, including policies and procedures examined during ICAO USOAP audits. The contents of the manual provide a template for States to modify, as necessary, their accident investigation documentation, to be in line with Annex 13 provisions and to standardize and harmonize accident investigation processes among ICAO Member States.

The vision of ICAO in developing this manual was to provide a document that States could use as a template to insert their State-specific material into a core document containing the essence of the most accepted and appropriate policies and procedures available, therefore ensuring compliance with Annex 13 during investigations carried out by all States.

Note 1.— Because this manual deals with accident, serious incident and incident investigations, for reasons of brevity, the terms “accidents” and “accident investigation”, as used herein, apply equally to “incidents” and “incident investigation”.

Note 2.— This manual is constructed in such a manner that, for a State that wishes to develop its own policies and procedures manual, it may “fill in the blanks” by inserting State-specific materials, such as legislation, regulations and names of organizations. In certain portions of the manual, where State-specific text would be required, such as the title of the accident investigation authority, the text is noted in italics enclosed in single brackets, such as [Name of State] or the [Investigation Authority].

Note 3.— In certain portions of this manual, comments and explanations are added in italics as “Notes” enclosed in double brackets ([[...]]) in order to provide better understanding of the suggested content. These notes are for information and clarification only and would not necessarily become part of the final manual; rather, they are intended to provide explanations or reasons for certain information to be included in a particular section of the manual.

In order to keep this guidance material relevant and accurate, suggestions for improving it in terms of format, content or presentation are welcome. Any such recommendation or suggestion will be examined, and, if found suitable, included in the next edition of the guidance upon approval by the Secretary General.

Regular revision will ensure that the guidance remains both pertinent and accurate.

Comments concerning this manual should be addressed to:

The Secretary General
International Civil Aviation Organization
999 Robert-Bourassa Boulevard
Montréal, Quebec H3C 5H7
Canada

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GLOSSARY

When the following terms are used in this manual, they have the following meanings:

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:

- being in the aircraft, or
- direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
- 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:

- 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 a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windcreens, 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 1.— For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

Note 2.— An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3.— The type of unmanned aircraft system to be investigated is addressed in ICAO Annex 13, paragraph 5.1.

Note 4.— Guidance for the determination of aircraft damage can be found in ICAO Annex 13, Attachment E.

Accident investigation authority. The authority designated by a State as responsible for aircraft accident and incident investigations within the context of Annex 13.

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.

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.

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.

Audit. A USOAP CMA on-site activity during which ICAO assesses the effective implementation of the critical elements (CEs) of a safety oversight system and conducts a systematic and objective review of a State's safety oversight system to verify the status of a State's compliance with the provisions of the Convention or national regulations and its implementation of ICAO Standards and Recommended Practices (SARPs), procedures and aviation safety best practices.

Balancing test. The determination whereby the competent authority(ies) assesses competing public interests and decides which interest should prevail leading to the determination referred to in Standard 5.12 of Annex 13.

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.

Competent authority. The governmental entity(ies) that has the power and authority to administer the balancing test.

Contributing factors. Actions, omissions, events, conditions, factors or a combination thereof, which, if eliminated, avoided or absent, would have prevented or reduced the probability of the accident or incident occurring, or would have mitigated the severity of the adverse 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.

Civil aviation authority. The governmental entity or entities, however titled, that are directly responsible for the regulation of all aspects of civil air transport, including technical (i.e. air navigation and aviation safety) and economic (i.e. the commercial aspects of air transport).

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

Note.— See Annex 6 — Operation of Aircraft, Parts I, II and III, for specifications relating to flight recorders.

General aviation operation. An aircraft operation other than a commercial air transport operation or an aerial work operation.

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

Note.— The types of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are listed in ICAO Annex 13, Attachment C.

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

Note.— Nothing in the above definition is intended to preclude the functions of an investigator-in-charge being assigned to a commission or other body.

Maximum mass. Maximum certificated take-off mass.

Operator. The person, organization or enterprise engaged in or offering to engage in an 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 an accident investigation authority based on information derived from an 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.

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.

Note 1.— The difference between an accident and a serious incident lies only in the result.

Note 2.— Examples of serious incidents can be found in ICAO Annex 13, Attachment C.

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

State of Manufacture. The State having jurisdiction over the organization responsible for the final assembly of the aircraft, engine or propeller.

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.

Note.— In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry. See, in this regard, the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies which can be found in Policy and Guidance Material on the Economic Regulation of International Air Transport (Doc 9587).

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

LIST OF ACRONYMS

ADREP	Accident/incident data reporting system
AIG/08	Accident Investigation and Prevention (AIG) Divisional Meeting (2008)
ATC	Air traffic control
ATS	Air traffic services
CAA	Civil aviation authority
ECCAIRS	European Coordination Centre for Accident and Incident Reporting Systems
ICAO	International Civil Aviation Organization
IDP	Individual development plan
IIC	Investigator-in-charge
ISASI	International Society of Air Safety Investigators
MoU	Memorandum of Understanding
OJT	On-the-job training
RAIO	Regional accident and incident investigation organization
SARPs	Standards and Recommended Practices
SDCPS	Safety data collection and processing systems
SSP	State safety programme
TCB	Technical Co-operation Bureau
USOAP	Universal Safety Oversight Audit Programme

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ORGANIZATION

Chapter 1

INTRODUCTION

1.1 GENERAL

1.1.1 This manual contains the *[Accident Investigation Authority]* policies and procedures for the investigation of civil aircraft accidents and incidents that occur in the *[Name of State]* territory. This manual also contains policies and procedures for the *[Accident Investigation Authority]* and other *[Name of State]* organizations' participation in investigations of accidents and incidents that occur outside of *[Name of State]* territory, but involve *[Name of State]* interests, including *[Name of State]*-operated, -registered, -designed and -manufactured aircraft. An organizational chart of the *[Accident Investigation Authority]* is contained in Chapter 3 of this manual.

1.1.2 The policies and procedures contained herein are in conformity with international standards and best practices.

[[Note.— The contents of this model manual are written based on the assumption that [Name of State] has in place legislation, regulations, policies, and procedures that are in full compliance with ICAO Standards and Recommended Practices (SARPs). If [Name of State] has “differences” between ICAO requirements, in accordance with Article 38 of the Convention, it must notify ICAO of such differences. Moreover, the policies and procedures manual developed by use of this model manual should clearly illustrate those provisions in the manual which differ from ICAO requirements, as well as any plans to bring [Name of State] provisions in line with ICAO requirements.]]

1.1.3 This manual was developed using the SARPs and guidance material promulgated by ICAO, as well as materials and best practices of some States.

1.1.4 The provisions of this manual are binding on the actions of the *[Accident Investigation Authority]*, including its investigators and management personnel. The provisions of this manual are also binding on any other *[Name of State]* government and aviation industry organizations and personnel, and other personnel and organizations from outside of *[Name of State]* that participate in the *[Accident Investigation Authority]*-led investigations.

Note 1.— Since investigations vary in complexity, a document of this kind cannot cover all eventualities. The more common techniques and processes, however, have been included. Although this manual may be of use for experienced and inexperienced investigators alike, it is not a substitute for investigation training and experience, as well as common sense.

Note 2.— Because this manual deals with investigations of accidents, serious incidents and incidents, for reasons of brevity, the terms “accidents,” “investigations” and “accident investigations”, as used herein, should apply equally to the investigation of accidents, serious incidents, and incidents.

1.2 STATE SAFETY PROGRAMME

1.2.1 In compliance with provisions of *Annex 19 — Safety Management*, ICAO Member States are required to establish and maintain a State safety programme (SSP) that is commensurate with the size and complexity of the State's civil aviation system. The implementation of an SSP requires coordination among multiple authorities responsible for the aviation functions in the State.

1.2.2 The SSP framework contemplates four components. The second component is “State safety risk management” and its third element is “accident and incident investigation”. The investigation process has a pivotal role in the SSP, enabling the State to identify causes and/or contributing factors and to generate the necessary countermeasures to prevent recurrence.

1.2.3 A State, or a regional grouping of States, must 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. The sole objective of the investigation of an accident or incident shall be the prevention of accidents and incidents, and not the apportioning of blame or liability. Such investigations are in support of the management of safety in the State. In the operation of the SSP, the State maintains the independence of the accident investigation authority from other State aviation authorities.

1.2.4 The *[Accident Investigation Authority]* has developed this manual as part of its efforts in support of *[Name of State]* to implement and maintain its SSP.

1.3 BACKGROUND DOCUMENTS

The following ICAO documents provide additional information and guidance on related subjects:

- *Annex 13 — Aircraft Accident and Incident Investigation*, Eleventh Edition, July 2016, incorporating Amendment 16
- *Manual of Aircraft Accident and Incident Investigation* (Doc 9756):
 - Part I — *Organization and Planning*
 - Part II — *Procedures and Checklists*
 - Part III — *Investigation*
 - Part IV — *Reporting*
- *Manual on Regional Accident and Incident Investigation Organization* (Doc 9946)
- *Model Accident Investigation Authority Act* (Appendix A)
- *Model Aircraft Accident and Incident Investigation (AIG) Regulations* (Appendix B)
- *Human Factors Training Manual* (Doc 9683)
- *Manual of Civil Aviation Medicine* (Doc 8984)
- *Safety Management Manual (SMM)* (Doc 9859)

- *Airport Services Manual* (Doc 9137), Part 5 — *Removal of Disabled Aircraft*
- *Manual on Assistance to Aircraft Accident Victims and their Families* (Doc 9973)
- *ICAO Policy on Assistance to Aircraft Accident Victims and their Families* (Doc 9998)
- *Training Guidelines for Aircraft Accident Investigators* (Circ 298)
- *Hazards at Aircraft Accident Sites* (Circ 315)

1.4 DEFINITIONS AND ABBREVIATIONS

The definitions and abbreviations used in this manual are contained in the glossary and list of acronyms.



Chapter 2

LEGISLATIVE REQUIREMENTS

2.1 ICAO REQUIREMENTS

Article 26 of the *Convention on International Civil Aviation* specifies that it is incumbent on a State in which an aircraft accident occurs to institute an inquiry into the circumstances of the accident. This obligation can only be met when appropriate legislation is in place. Such legislation must establish an accident investigation authority (or commission, board or other body) for the investigation of aircraft accidents. ICAO Annex 13 — *Aircraft Accident and Incident Investigation*, contains SARPs for the investigation of accidents and incidents in ICAO Member States. Legislation and regulations are in place in *[Name of State]* to address these international requirements.

2.2 THE REQUIREMENTS IN *[NAME OF STATE]*

2.2.1 General

[Name of State] has adopted legislation, regulations, policies and procedures that meet the requirements of ICAO for accident and incident investigation. *[Name of State]* has no need to forward “differences” to ICAO, in accordance with Article 38 of the Convention.

[[Note.— If the State has had to file differences with any of the provisions of Annex 13, the above paragraph and any subsequent text in the manual would need to be modified to reflect those differences.]]

2.2.2 Legislation in *[Name of State]*

[[Note.— This portion of the manual should include a summary of relevant State legislation, which provides the legislative basis for the policies and procedures contained in the manual, and which illustrates the State’s commitment to comply with the Chicago Convention, particularly Article 26 of the Convention, and the SARPs contained in ICAO Annex 13. It also should include, but is not limited to, a summary of the legislation, which:

- a) created the accident investigation authority;*
- b) demonstrates the independence of the accident investigation authority from State aviation authorities and other entities that could interfere with the conduct or objectivity of an investigation;*
- c) provided it with the responsibilities and authorities (including funding) regarding civil aviation accident and incident investigation on behalf of the State; and*
- d) authorizes the publication of government operating regulations regarding investigations of accidents and incidents.*

The full legislation should be contained in an Appendix to the manual. An example of possible text is presented below, and an example of Model Accident Investigation Authority Act is contained in Appendix A.]]

The legislative basis for the policies and procedures contained in this manual are codified in *[Aviation Act, or other name of the relevant legislation, including the date the legislation was enacted]*. A copy of the *[Act, or other name]* is contained in Appendix A. The *[Act, or other name]* establishes the *[Accident Investigation Authority]* and provides its responsibilities and authorities for the investigation of aircraft accidents and incidents to be conducted in accordance with Article 26 of the Chicago Convention and ICAO Annex 13. The *[Act, or other name]* specifies that provisions regarding investigations will be further regulated by government regulations.

2.2.3 Regulations in *[Name of State]*

[[Note.— This portion of the manual should include a summary of relevant regulations, sometimes referred to as “operating regulations”, published by the government regarding accident and incident investigations. The regulations should address, at a minimum, the national requirements emanating from the legislation pertaining to accident and incident investigation and should provide for standardized investigation processes in conformance with the SARPs contained in ICAO Annex 13, as well as guidance contained in the ICAO Manual of Aircraft Accident and Incident Investigation (Doc 9756), Parts I, II, III and IV. Some States promulgate regulations regarding accident and incident investigation virtually verbatim to the SARPs contained in ICAO Annex 13 and Doc 9756. Promulgation of regulations may take on different forms, depending on the preferences of various States. In some cases, regulations are promulgated and published by Presidential Decree, or similar government action. In other cases, the regulations may be promulgated by the independent accident investigation authority, after appropriate approval within the government. Regardless of the means of promulgation, the regulations need to ensure satisfactory compliance with ICAO Annex 13 and other ICAO guidance materials.

The full operating regulations should be contained in an Appendix to the manual. An example of possible text is presented below; and an example of Model Regulations is contained in Appendix B.]]

The regulatory basis for the policies and procedures contained in this manual are codified in *[Name or title of regulations pertaining to accident and incident investigation, as well as the date of enactment]*. The regulations are consistent with the provisions of ICAO Annex 13 and other ICAO documents regarding accident and incident investigation, including the ICAO Manual of Aircraft Accident and Incident Investigation (Doc 9756), Parts I, II, III and IV. A copy of the operating regulations is contained in Appendix B.

[[Note.— If the State has filed differences with any provisions of Annex 13, the above paragraph and subsequent text in the manual would need to be modified accordingly.]]

2.3 POLICY MATTERS AND MANUAL AMENDMENTS

2.3.1 It is the policy of the *[Accident Investigation Authority]* to conduct its business in accordance with ICAO SARPs, particularly those contained in ICAO Annex 13 and the ICAO Manual of Aircraft Accident and Incident Investigation (Doc 9756), Parts I, II, III and IV. It is also the policy of the *[Accident Investigation Authority]* to conduct its business in accordance with the relevant laws and regulations of *[Name of State]*.

2.3.2 The laws and regulations are supplemented by this manual, which contains the policies and procedures of the *[Accident Investigation Authority]* for the conduct of an investigation in *[name of State]* or outside of *[Name of State]*, when *[Name of State]* interests or responsibilities apply.

2.3.3 The *[Head/Chief]* of the *[Accident Investigation Authority]* should appoint a staff member to monitor any amendments to ICAO SARPs or other ICAO documents to ensure that relevant *[Name of State]* laws, regulations, policies and procedures are amended as necessary. If for some reason, *[Name of State]* laws, regulations, policies and procedures do not meet the intent of ICAO SARPs, the *[Head/Chief]* of the *[Accident Investigation Authority]* should ensure that ICAO is notified in a timely manner of such differences, in accordance with Article 38 of the Chicago Convention.

2.3.4 The *[Head/Chief]* of the *[Accident Investigation Authority]* should also appoint an appropriate staff member to review this manual on a periodic basis and to prepare amendments, as necessary, to ensure its currency and consistency with the standards and best practices of the international aviation community. That staff member should also ensure that any differences between *[Name of State]* and ICAO SARPs are notified to ICAO, pending possible amendment of *[Name of State]* laws, regulations, policies and procedures, to resolve such differences.

Chapter 3

INVESTIGATION OBJECTIVE AND INDEPENDENCE

3.1 ICAO REQUIREMENTS

An accident investigation authority must be strictly objective and totally impartial and must also be perceived to be so. It must also be able to conduct investigations in an independent manner that precludes interference from outside pressures. The following references are relevant:

- ICAO Annex 13, Chapter 3, paragraph 3.1:

“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”.

- ICAO Annex 13, Chapter 3, paragraph 3.2:

“A State 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”.

- ICAO Annex 13, Chapter 5, paragraph 5.4:

“The accident investigation authority shall have independence in the conduct of the investigation and have unrestricted authority over its conduct...”.

- ICAO Annex 13, Chapter 5, paragraph 5.4.1:

“Any investigation conducted in accordance with the provisions of this Annex 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, as per 5.10, between the two processes would likely be required at the accident site and in the gathering of factual information, with due consideration to the provisions in 5.12”.

- ICAO Annex 13, paragraph 5.4.3:

“A State shall ensure that any investigations conducted under the provisions of this Annex have unrestricted access to all evidential material without delay”.

- ICAO Annex 13, paragraph 5.4.4:

“A State should ensure cooperation between its accident investigation authority and judicial authorities so that an investigation is not impeded by administrative or judicial investigations or proceedings”.

Note.— 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 ongoing debriefings of the status of each process; exchange of information; appropriate use of safety information; and resolution of conflicts.

- ICAO *Manual of Aircraft Accident and Incident Investigation* (Doc 9756), Part I — *Organization and Planning*, paragraph 2.1.7, which states, in part, the following:

“The accident investigation authority must be strictly objective and totally impartial and must also be perceived to be so. It should be established legislatively in such a manner that it can withstand political or other interference or pressure from other government organizations, as well as from industry. Many States have achieved this objective by setting up their accident investigation authority as an independent statutory body or by establishing an accident investigation organization that is separate from the civil aviation administration. In these States, the accident investigation authority reports direct to Congress, Parliament or a ministerial level of government that is different than the Ministry, which also oversees State aviation authorities”.

This is the ideal arrangement for demonstrating independence, in accordance with Annex 13, paragraph 3.2.

[[Note.— If the State meets the above ideal arrangements, the manual contents should highlight the legislative, regulatory and organizational structure of the accident investigation authority that demonstrates its independence. However, if the ideal arrangements are not possible because of political or other reasons and the accident investigation authority is directly or indirectly connected to the Ministry that is also responsible for the State civil aviation authority, the manual contents will need to highlight the legislative, regulatory and operational basis, which demonstrates “functional” independence in accordance with Annex 13, paragraph 3.2, as outlined below in the note following paragraph 3.2.2.

Moreover, when States’ resources for aircraft accident and incident investigations are limited, ICAO encourages States to foster regional accident and incident investigation organizations (RAIOs). Regional arrangements may include aircraft accident and incident investigation matters, such as the delegation of investigations or parts thereof, or enlisting the mutual assistance and cooperation of States in an investigation. The ICAO *Manual on Regional Accident and Incident Investigation Organization* (Doc 9946) provides guidance on the establishment and management of a regional accident and incident investigation organization. The manual also outlines the duties and responsibilities of ICAO Contracting States, individually and/or collectively, with respect to the establishment and management of a regional accident and incident investigation system.

However, when a State delegates the conduct of all investigations under their responsibility to another State or an RAIO, that State would still need to have an accident investigation authority established, in accordance with Standard 3.2 of Annex 13. In this case, the accident investigation authority could be composed of a skeleton staff (e.g. one to three persons) necessary to run the function and services of the authority. Some of the roles of the delegating State’s accident investigation authority would be to institute the investigation, as per Standard 5.1 of Annex 13, and to ensure that the wreckage is properly protected awaiting the arrival of the investigation team, as required in Standard 3.3 which reads:

“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 unauthorized persons, pilfering and deterioration”.

Should the accident investigation authority be required to undertake concurrently another function, due to limited resources in the State, there must be no organizational and/or operational connection with other entities that could interfere with the conduct and objectivity of investigations, including judicial authorities and civil aviation authorities. If this is the arrangement in the State, the manual contents would need to contain the legislative, regulatory and operational structure that demonstrates compliance with Standard 3.2 of Annex 13.

Lastly, some States appoint a separate ad hoc accident investigation commission for each accident to be investigated. Such States would also need to have an accident investigation authority established, in accordance with Standard 3.2 of Annex 13. There also must be provisions in place to alleviate any retribution of seconded personnel to an ad hoc commission, when they return to their normal duties. If this is the arrangement in the State, the manual contents will need to describe the legislative, regulatory and operational structure for the ad hoc accident investigation commission that demonstrates compliance with Standard 3.2, Annex 13. The Manual of Aircraft Accident and Incident Investigation (Doc 9756), Part I, Chapter 2, contains detailed guidance material regarding this subject.]]

3.2 INDEPENDENCE

3.2.1 Maintaining independence in the conduct of investigations will result in enhancing the credibility of the [Accident Investigation Authority] and its ability to avoid situations that have the potential to create conflicts of interest. Maintaining independence of the investigation function is equally important for accident and incident investigations.

3.2.2 The intent of “independence” is that the [Accident Investigation Authority] shall be functionally independent, in particular from the State civil aviation authorities responsible for airworthiness, certification, flight operation, maintenance, licensing, air traffic control or airport operation and, in general, of any other party whose interests could conflict with its ability to conduct its work, without interference or influence from other organizations.

[[Note.— The Manual of Aircraft Accident and Incident Investigation, Part I — Organization and Planning (Doc 9756), Chapter 2, outlines the criteria that must be demonstrated by all States, regardless of the legislative and organization arrangements in the States, in order for the accident investigation authority to be considered “functionally independent”. Those criteria are repeated here to enable States to tailor the contents for this section of the manual to its particular arrangements:

1. Functional independence

It must be demonstrated that there are no real or perceived examples of influence by the ministry concerned on the conduct of the accident investigation authority's investigations, the issuance of findings, safety recommendations, interim report(s) and the Final Report. In other words, the ministry must not have the organizational means to influence the conduct of the investigation and its results, nor can it demand access, or give judgement about the investigation's source materials.

2. Autonomous investigation

It must be demonstrated that the accident investigation authority, during the conduct of its investigations, neither seeks nor takes instructions from other authorities and has unrestricted authority over the conduct of investigations.

3. Unrestricted authority to publish information

It must be demonstrated that the accident investigation authority can issue interim statements or report(s), findings, safety recommendations and the Final Report under its signature, without having to obtain approval from any outside authority. Of course, this does not affect the accident investigation authority's routine consultation during the course of the investigation with team members as part of the investigation party system, nor the consultation on the draft Final Report with participating States in accordance with Annex 13.

4. Independent funding and staffing

It must be demonstrated that funding and staffing of the accident investigation authority cannot be influenced by the ministry concerned or any other organizations. This includes the alleviation of any retribution of seconded personnel when they return to their regular duties.

5. Critical elements embedded in legislation

The criteria listed above need to be outlined in legislation and need to be apparent in the operation of the accident investigation authority in order for it to be considered functionally independent.]]

3.2.3 "Independence" does not mean that the [Accident Investigation Authority] would not be administratively supervised and accountable to a governmental minister or ministry (or Parliament or Congress) for its finances, administration, policies and working methods (which should be transparent).

3.2.4 The [Accident Investigation Authority] has legislative support to ensure funding for its routine investigation activities and has contingency plans in place for emergency funding of costly investigations.

3.3 THE REQUIREMENTS IN [NAME OF STATE]

[[Note.— This section of the manual should be tailored to the specifics of the language contained in the State legislation and regulations. Suggested text is offered below. The legislation and operating regulations should be placed in appendices to the manual. Model legislation and operating regulations are contained in Appendices A and B to provide guidance to States in developing their specific legislation and operating regulations.]]

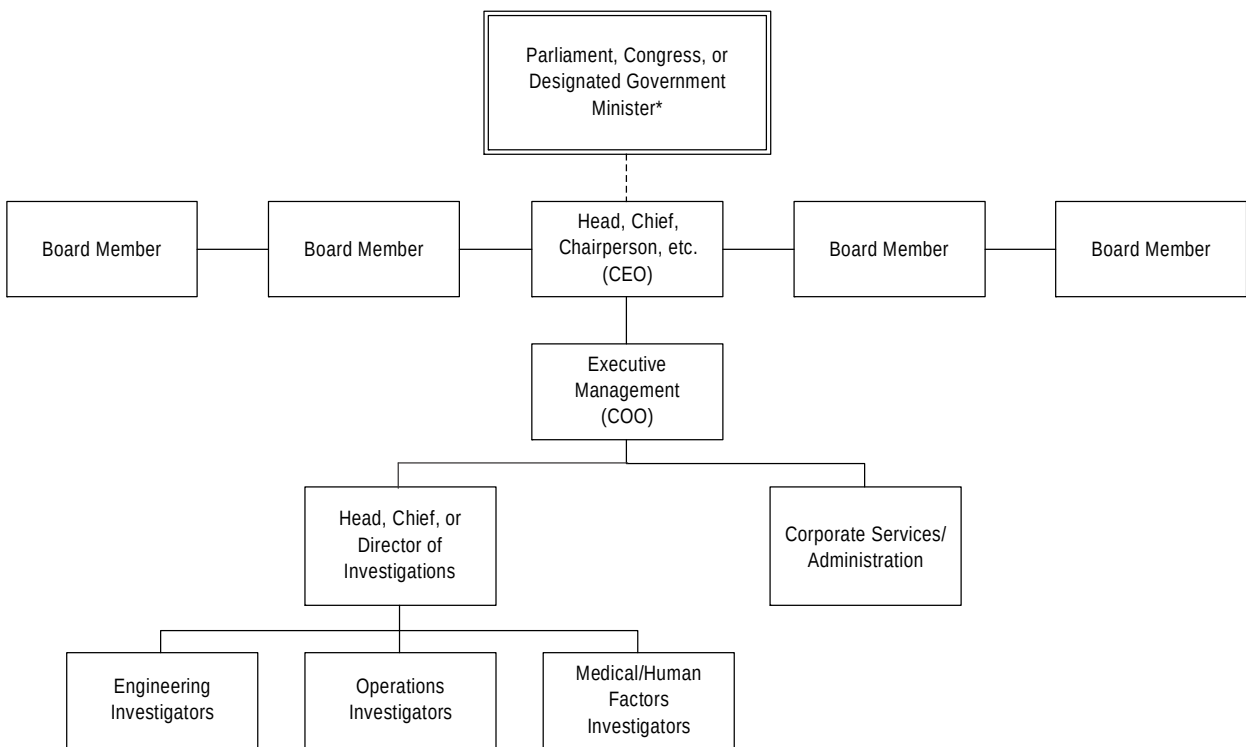
3.3.1 The [Name of State] legislation, regulations, policies, and procedures are consistent with and reinforce the provisions of ICAO Annex 13 regarding the objective and independence of the investigation.

3.3.2 The requirements of the [Accident Investigation Authority] are contained in [Legislation, regulations — Appendices A and B] for the independence and objectivity of investigations, as follows:

- a) ensure the establishment of an adequately funded, professionally trained, independent and impartial accident investigation authority in [Name of State];
- b) ensure the independence of all investigations into aircraft accidents and incidents that are carried out in [Name of State] from political or other interference or pressure; and
- c) promote the use of a common set of regulations compliant with the provisions of ICAO Annex 13 — *Aircraft Accident and Incident Investigation*, including regulations for the protection of accident and incident investigation records with the purpose of accident prevention and not the assignment of blame.

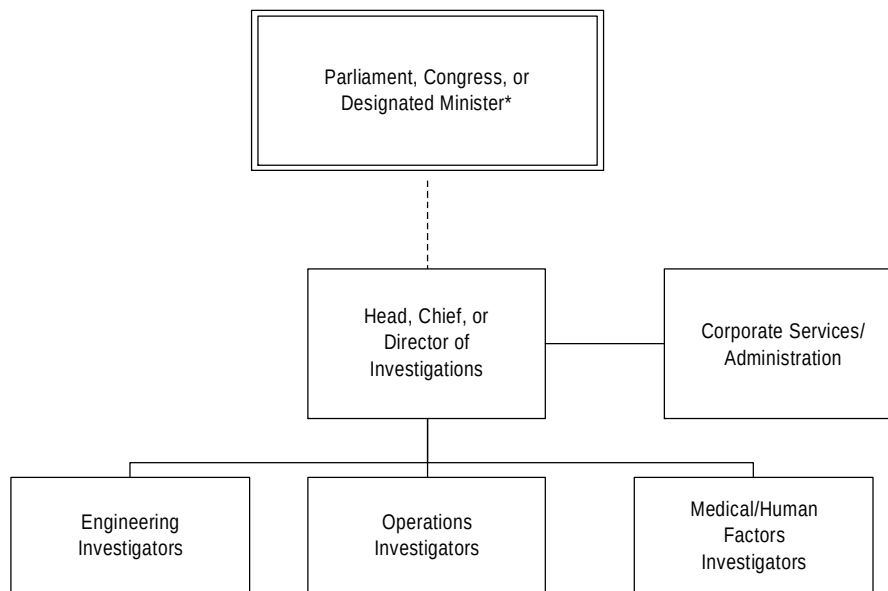
3.4 ORGANIZATIONAL CHART OF THE [ACCIDENT INVESTIGATION AUTHORITY]

[[Note.— In this part of the manual, it is appropriate to insert the organizational chart for the accident investigation authority, along with any narrative necessary to explain the organizational structure. The chart should reflect the independence of the authority and the details of the management and reporting functions. Figures 3-1 and 3-2 below illustrate how many States organize their accident investigation authorities to meet the “independence” requirements of ICAO Annex 13. Figure 3-1 shows a complex organization with a politically appointed chairman and board members, who normally are not investigators. Figure 3-2 shows a more streamlined organization that does not have a board. Such an organization is most often led by an experienced investigator, such as a senior official. It should be noted that the reporting requirements in both cases are administrative only to Parliament, Congress, or a designated minister and the organizations are fully separate from any State civil aviation authorities and from judicial authorities.]]



* The accident investigation authority must not report to the same minister responsible for the regulation and safety oversight of civil aviation in the State.

Figure 3-1. Complex organizational structure of an accident investigation authority



- * The accident investigation authority must not report to the same minister responsible for the regulation and safety oversight of civil aviation in the State.

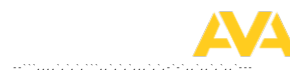
Figure 3-2. Streamlined organizational structure of an accident investigation authority

3.5 SUMMARY

It is the policy of the *[Accident Investigation Authority]* and its investigation teams to meet the requirements specific to this chapter to ensure that the sole purpose of investigations is to prevent future accidents. Any judicial or administrative proceedings to apportion blame or liability shall be separate from the *[Accident Investigation Authority]* investigations. The *[Accident Investigation Authority]* and its investigation teams shall have functional independence in the conduct of an investigation and unrestricted authority over its conduct, with the intent that any appointed investigation team can withstand interference or pressure from any source.

PLANNING

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Chapter 4

PLANNING AND PREPARATION FOR INVESTIGATION

4.1 GENERAL

4.1.1 In order to conduct proper investigations, the managers and investigators of the *[Accident Investigation Authority]* must be fully prepared and must have a plan of action before an accident or incident occurs. Pre-investigation planning and preparedness involves several elements, including a plan for staffing key positions on an investigation team. Other considerations include Memoranda of Understanding (MoU) with other *[Name of State]* government and aviation industry organizations, as well as aircraft accident investigation authorities in other States, as a means to obtain assistance in the form of qualified investigators and facilities when required. It is important to have temporary arrangements in place for the secondment of additional staff from other *[Name of State]* government and industry organizations under some circumstances. It is also important to provide adequate training of personnel and to provide the appointed investigators with the necessary tools, investigation equipment and personal protective equipment in order to meet health and safety requirements.

4.1.2 Proper planning and preparedness are essential in facilitating the prompt arrival of investigators at an accident site and have considerable bearing on the efficiency of the investigation.

4.2 THE SELECTION AND APPOINTMENT OF INVESTIGATORS

4.2.1 Attention is drawn to ICAO Circular 298, *Training Guidelines for Aircraft Accident Investigators*, Chapter 2, *Background Experience for Investigators*, paragraphs 2.1 and 2.2, which state, in part:

Aircraft accident investigation is a specialized task which should only be undertaken by qualified investigators.... Potential accident investigators must have considerable practical experience in aviation as a foundation on which to build their investigation skills.

It is the policy of the *[Accident Investigation Authority]* to follow the guidance contained in ICAO Circular 298 regarding the selection and appointment of investigators.

4.2.2 The investigation personnel of the *[Accident Investigation Authority]* are issued government credentials, which specify the legislative and regulatory basis for their authorities and responsibilities. The credentials contain the investigators' photographs and provide the legal basis for their work during investigations of accidents and incidents.

4.2.3 The *[Accident Investigation Authority]* has agreements with the accident investigation authorities in other States to call upon other experts for assistance on very short notice and without having to establish formal agreements and arrangements at the time of the need of such assistance. Appendix C contains an example of an MoU in respect of accident and serious incident investigation and a sample MoU with a State accident investigation authority.

4.2.4 As part of its management plan, the *[Accident Investigation Authority]* maintains a list of qualified investigators who are appointed to key positions. Also, the *[Accident Investigation Authority]* should ensure that suitable arrangements can be made on short notice to enlist the necessary support staff from other organizations within *[Name of State]*.

4.2.5 The use of outside expertise is accomplished by written contracts and/or MoUs which include provisions to ensure that the seconded individuals are relieved of their regular duties during the course of the investigation. Their independence and objectivity in the investigation work is essential, and it is important to ensure there are no real or perceived conflicts of interest on the parts of seconded individuals. Seconded investigators should be given proper credentials and should sign written agreements to comply with *[Name of State]* laws, regulations, policies and procedures, and to demonstrate their independence and objectivity and that there are no conflicts of interest during the period of the secondment.

4.2.6 Each investigator, as well as outside personnel used on a temporary basis, must be fully aware of their duties and responsibilities.

4.3 INVESTIGATOR TRAINING

4.3.1 It is the policy of the *[Accident Investigation Authority]* to provide appropriate training to investigators consistent with international standards and best practices. In particular, the *[Accident Investigation Authority]* should follow guidance provided in ICAO Circular 298, Chapters 3 and 4, which contain detailed information regarding the training of investigators in four phases:

- 1) Initial training
- 2) On-the-job training
- 3) Basic accident investigation courses
- 4) Advanced accident investigation courses and additional training

4.3.2 One means to determine and manage training needs, as well as to monitor and evaluate the training needs and training outcomes of the *[Accident Investigation Authority]* staff, is through the use of an individual development plan (IDP). A template for an IDP is provided in Appendix E, containing the required elements of an investigator's or manager's training programme. Based on an individual's job description and his or her background, experience, and training gained in the past, the need for additional training can be determined and monitored with the IDP, which would be completed for each staff member.

Note.— The items listed in the template IDP are for reference only. Individual items may be added, deleted, or amended to make the IDP directly applicable to any particular staff member.

4.3.3 Each newly hired person possesses some knowledge, skills, and abilities applicable to the assigned tasks; however, the level from one person to another varies. For example, two highly qualified operations investigators could possess extensive flight operations background, but one may only have limited incident investigation experience, while the other may have considerable major accident investigation experience. Further, investigators require different levels of knowledge, skills, and abilities, depending on the investigation roles to which they may be assigned. The IDP is an excellent tool for identifying and managing these variables.

4.3.4 The IDP contains the basic requirements of knowledge, skills and abilities that each person either must possess when hired, or must gain through a structured training programme. The IDP also provides a tool to manage and plan each person's training, including a means to project an annual training budget. Further, the IDP can be used to document the necessary steps to be taken for a person to be promoted to higher levels of responsibility, such as from the position of Operations Investigator to Investigator-in-charge. The completed IDP for each person becomes his or her training record, and it is filed along with supporting materials such as certificates and other records of training and experience.

4.4 INVESTIGATOR EQUIPMENT

4.4.1 As part of its management plan, it is the policy of the *[Accident Investigation Authority]* to properly equip its managers and investigators in accordance with ICAO guidance material and international best practices.

4.4.2 Attention is drawn to the ICAO *Manual of Aircraft Accident and Incident Investigation* (Doc 9756), Part I, Chapter 2, paragraph 2.6.1, which states, in part, the following:

Accident investigators should have their investigation field kits and essential personal items packed and ready so they can proceed without delay to the accident site...."

Appendix 1 to Chapter 2 of Doc 9756, Part I contains guidance for preparing an investigation field kit.

4.4.3 Attention is also drawn to the ICAO *Manual of Aircraft Accident and Incident Investigation* (Doc 9756), Part I, Chapter 5, paragraphs 5.4 and 5.5, and Appendix 1 to Chapter 5 — *Personal Protective Equipment against Biological Hazards*, regarding safety at the accident site and environmental and natural hazards.

4.4.4 The *[Accident Investigation Authority]* should ensure that there is a periodic review of the technical investigation equipment to be used by the investigators at an accident site. The equipment could include cameras, notebook computers, mobile telephones, tools, etc. Specialized equipment may need to be stored at the office or may have to be purchased as needed.

4.4.5 Advance consideration should be given to details such as accident investigators' inoculations, passport requirements and travel facilities.

4.5 HEALTH AND SAFETY AT AN ACCIDENT SITE

4.5.1 ICAO Circular 315, *Hazards at Aircraft Accident Sites*, contains detailed guidance on managing occupational health risks in aircraft accident investigation, including the various categories of hazards associated with accident and incident investigation. The *[Accident Investigation Authority]* should use the generic operational safety planning guide contained in Chapter 4 of Circular 315, as well as the operational safety plan/site assessment tool contained in Appendix A to Chapter 4 of Circular 315, and the personal protective equipment guide contained in Appendix B to Chapter 4 of Circular 315.

4.5.2 Investigators should be aware of the potential hazards at an accident site and what precautions to take. For this reason, the *[Accident Investigation Authority]* should designate a staff member (or an appropriate person or persons from another organization) as the "accident site safety and security coordinator" responsible for accident site safety and security matters and overseeing the personal protective equipment and its use. The investigator-in-charge (IIC) or the designated accident site safety and security coordinator should brief the investigation team on all known and potential hazards and should establish appropriate safety practices. The accident site safety and security coordinator should also ensure compliance with the provisions of this manual and other ICAO guidance material regarding the health and safety of investigators during the course of investigations.

Note.— If a specific accident site safety and security coordinator is not designated, another investigator, such as the IIC, chairperson of the structures group or another responsible person should assume the duties of ensuring proper site safety and security.

4.5.3 The support of fire department and dangerous goods specialists should be enlisted, as necessary, to evaluate known and/or potential hazards, and to brief the investigation team, as appropriate.

4.5.4 Investigators who work among wreckage should be given a valid anti-tetanus serum inoculation and hepatitis immunization, as well as the necessary personal protective equipment against biological hazards, such as blood-borne pathogens. Records of inoculations should be maintained for each investigator.

4.5.5 It is the policy of the *[Accident Investigation Authority]* to provide all investigators with initial and recurrent training on biological hazard protective equipment and procedures. Records of such training should be maintained for each investigator.
