

**FEDERAL DEMOCRATIC REPUBLIC OF
ETHIOPIA**

MINISTRY OF TRANSPORT

AIRCRAFT ACCIDENT INVESTIGATION

BUREAU

RULES & STANDARDS

August 2017



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THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF TRANSPORT

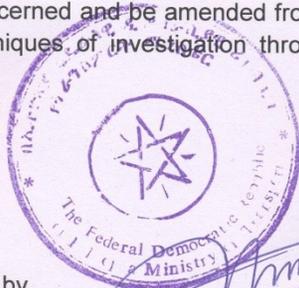
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ADDIS ABABA, ETHIOPIA

Document Approval

This Aircraft Accident Investigation **Rules & Standards** has been prepared by the AIB bureau to implement the provisions of the AIB Proclamation on the investigation of aircraft accidents and incidents to enhance overall aviation safety.

The Ministry of Transport here by approved this Rules & Standards to be implemented by all concerned and be amended from time to time up on introduction of new methods and techniques of investigation through the International Civil Aviation Organization (ICAO)



Approved by

Date

Ahmed Shide
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Minister

TABLE OF CONTENTS

RECORD OF AMENDMENTS	VI
ACRONYMS	VII
FOREWORD	VIII
1. GENERAL PROVISIONS	1
1.1 Definitions & Abbreviations.....	1
1.2 REVIEW AND AMENDMENT.....	5
1.3 AIRCRAFT ACCIDENT INVESTIGATION BUREAU (AIB).....	6
1.4 STRUCTURE.....	6
1.5 FUNDING.....	7
2. APPLICABILITY	7
3. GENERAL	7
3.1. Objective	7
3.2 Protection of evidence	7
3.3. Release from custody.....	7
3.4 Conflicts of Interest.....	8
4. NOTIFICATION	8
4. 1 Notification of Accidents and Series Incidents.....	8
4.2 Format and content.....	9
4.3 Language.....	10
4.4 Additional Information.....	10
4.5 Action to be taken on receipt of notification.....	10
4.6 Responses to Notification.....	11
4.7 Forwarding of Notification.....	11
4.8 Receipt of Notification.....	12
4.9 Voluntary Reporting	12
5. INVESTIGATION	12
5.1 Accident or Serious Incident Occurred In the Territory of Ethiopia.....	12
5.1.1 Decision as to the type of investigation.....	13
5.1.2 Delegation of Investigation.....	13
5.1.3 Accidents or Serious incidents in the territory of a Non Contracting State	13

5.2 Accident or serious incident out side the territory Ethiopia	14
5.3 Foreign Investigations.....	14
5.4 Organization and conduct of the Investigation	14
5.5 Investigator-in-charge – Designation.....	16
5.5.1 Investigator-in-charge - Access and control.....	16
5.6 Investigation - Powers of Investigators	16
5.7 Flight recorders Accidents and serious incidents.....	18
5.8 FDR Readout Facilities	18
5.9 Autopsy Examinations.....	18
5.9.1 Medical examinations.....	19
5.10 Investigation-Coordination.....	19
5.11 Informing Aviation Security Authorities.....	19
5.12 Protection of accident and incident investigation records/.....	20
5.13 Re-opening of investigation.....	20
5.14 Responsibility of any other state.....	21
5.15 Participation in the investigation.....	21
5.16 Participation of Observer.....	21
5.17 Participation of Designers & Manufacturers.....	21
5.18 Participation of other states.....	21
5.19 Appointing of accredited representatives & advisors.....	22
5.20 Scopes of participation.....	22
5.21 Obligation of Accredited Representatives & their Advisors.....	23
5.22 Entitlement of appointed experts.....	23
5.23 Rights and Entitlements Granted to an Observer or Participant.....	23
5.24 Entitlement on Recording and Transcription of Recordings.....	23
6. INTERIM, DRAFT AND FINAL REPORT.....	23
6.1 Investigation Interim Statement.....	24
6.2 Draft report.....	24
6.3 Final Report.....	25
6.4 Release of the Final Report to the Public.....	25
6.5 Sending the final Report to ICAO.....	25

6.6 Safety Recommendation.....	25
6.7 Action on Safety Recommendation.....	26
7.1. Preliminary Report.....	26
7.2. Accidents to aircraft of 2, 250 kg or less.....	26
7.3. Language.....	27
7.4 Dispatch.....	27
7.5 Accident/Series incident Data Report.....	27
7.6. Additional information.....	27
7.7 Serious Incidents to aircraft over 5,700 kg.....	27
8. ACCIDENT PREVENTION MEASURES.....	27
9. OBSTRUCTION OF INVESTIGATION.....	28
10. PENALTIES.....	28
11.1 Air Traffic Incident.....	28
11.2 Airborne Collision Avoidance System Resolution Advisory.....	28
11.3 Bird Hazards and Strikes.....	28
11.4 In-flight Emergencies with Dangerous Goods on Board,.....	28
11.5 Unlawful Interference.....	29
11.6 Encountering Potential Hazardous Conditions.....	29
12. CO-OPERATION WITH THE MEDIA AND OTHER AUTHORITIES.....	29
12.1 Co-operation with the Media.....	29
12.2 Cooperation with other Authorities.....	29
13. PRE-ACCIDENT PLAN.....	29
APPENDIX - A List of examples of serious incidents.....	31
APPENDIX - B The Format & content of the accident or serious incident Notification.....	32
APPENDIX - C Detailed guidance material on completing each section of the final report.....	34
APPENDIX -D Aircraft Accident Investigation Bureau (AIB) Structure	37
ATTACHMENT- A Granting of Observer/Participant Status	38

ACRONYMS

ACAS	Airborne Collision Avoidance System;
ACCID	Accident;
AIB	Aircraft Accident Investigation Bureau
ADREP	Accident/Incident Reporting System;
ATS	Air Traffic Service;
CFIT	Controlled flight into terrain
ICAO	International Civil Aviation Organization;
IIC	Investigator-in-Charge
INCID	Serious Incident;
FDR	Flight Data Recorder
MOT	Ministry of Transport
PPE	Personnel Protective Equipment
ROFORS	Route Forecast (in meteorological code)
TAFORS	Aerodrome Forecast
UTC	Universal Time Coordinated

FOREWORD

In conformity with Article 26 of the Convention on International Civil Aviation, it is incumbent on every State in which an aircraft accident or serious incident occurs to institute an inquiry into the circumstances of the accident and serious incident.

The sole objective of an aircraft accident or serious incident investigation is the prevention of future accidents and serious incidents and not to apportion blame or liability. The emphasis of an aircraft accident or serious incident investigation is on remedial actions. An aircraft accident provides evidence of hazards or deficiencies within the aviation system. A well-conducted investigation should therefore identify all immediate and underlying causes of an accident and recommend appropriate safety actions aimed at avoiding the hazards or eliminating the deficiencies. The investigation may also reveal other hazards or deficiencies within the aviation system not directly connected with the causes of the accident.

PURPOSE

In accordance with Aircraft Accident Investigation Bureau Establishment Proclamation No 957/2016 this Rules & standards is established to determine the role and position of Aircraft Accident Investigation in the event of aircraft accident/serious incident investigation within the airspace of Ethiopia.

The purpose of this Aircraft Accident /series incident investigation Rules & standards is to convey a commitment to investigate significant aircraft accidents and serious incidents and identify the role and responsibilities of the AIB or the investigation authority, the relationship and interaction with other Ethiopian CAA, Operators, Airports Authority of Ethiopia and other civil agencies in this regard is specified. The following are the main purposes:

- Formalize notification, analysis and reporting procedures and obligations
- Formalize standard procedures for the Investigators to follow when investigating any aircraft occurrence (accident/ incident)
- Provide a post-aircraft occurrence investigation system to enable to identify safety deficiencies
- Provide reference and guidance material to assist Investigators in the conduct of investigations
- Detail essential resources for conducting the investigation.

This Rules & standards provide general information to assist the Accident investigator, IIC, Committee of Inquiry and others who may participate in aviation accident investigation. It is intended to provide guidance on the process of conducting an investigation, from initial notification to the adoption of the final report, probable cause, and recommendations. Although it includes some technical information related to investigative activities in aviation accidents, it is primarily intended to provide guidance of a procedural or administrative nature. Investigators should refer to Annex 13 of the International Civil Aviation Organization (ICAO) for procedural

references and to the ICAO Manual of Aircraft Accident Investigation for technical information and examples of investigative techniques. According to ICAO Doc 9735 AN/960 the term rules and standards is used in a generic sense, and includes but is not limited to, instructions, rules, edicts, directives, set of laws, requirements, policies and orders

1. GENERAL PROVISIONS

1.1 Definitions & Abbreviations

In this Rules and Standards manual the following terms, unless the context otherwise requires, shall have the following meaning:

'Accident' means 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 it comes to rest at the end of the flight and the primary propulsion system is shut down in which:

a) a person suffers a fatal or serious injury 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, (include its cowlings or accessories); to propeller, wing tips, antennas, probes vanes; tyres, brakes, wheels; panel fairings, landing gear door, windscreens, the aircraft skin (such as small dents or puncture holes or for minor damages to main rotor blades, tail rotor blades, landing gears, and those resulting from hail or bird strike (including holes in the Radom); or

c) the aircraft is missing or is completely inaccessible;

'Accident Investigation Authority' means, the authority designated by a state as responsible for aircraft accident and incident investigations within the context of annex-13.

Aerodrome Administration' means, in relation to any aerodrome, the person who manages the aerodrome.

Act: The Aircraft Accident and Incident Investigation Authority Act of state

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's 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.

'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.

Airport operator: A person, organization or enterprise engaged in the operation, of an airport.

Air traffic control unit: A generic term meaning variously, area control centre, approach control unit, or aerodrome control tower

'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 surface

'The Annex' means **Annex 13** to the Chicago Convention.

Appointed Head: A minister, commissioner, or other competent government official who is appointed by a state to be responsible for the accident and incident investigations within the meaning of the Act

'Causes' Actions, omissions, events, conditions, or a combination thereof, which led to the accident or serious incident. The identification of causes does not imply the assignment of fault or the determination of administrative, civil or criminal liability.

Collision: An impact between aircraft, or between an aircraft and another object.

'Contracting State' means any State which is party to the Chicago Convention;

'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.

'Crew' includes every person employed or engaged in an aircraft in flight on the business of the aircraft.

Dangerous goods: Articles or substances which are capable of posing a risk to health, safety, property or the environment. More information related to dangerous goods can be found in ICAO Annex 18. The Safe Transport of Dangerous Goods by Air and in ICAO Doc 9284 Technical Instructions for the Safe Transport of Dangerous Goods by Air,

Department: Any ministry, authority, organization or other concerned body of the government of state that has a direct interest in aircraft accidents or incidents.

Document: Includes any correspondence, memorandum, book, plan, map, drawing, diagram, pictorial or graphic, film, sound recording, video tape, electronic files and data, and any copy thereof.

Draft Final Report: Draft investigation report that is sent in confidence to departments in state, States, and organizations involved in the investigation, inviting their significant and substantiated comments on the report. **Final Report:** A State's conclusive report on its investigation into an aircraft accident or incident. The final report includes the pertinent factual information, analysis, conclusions and, when appropriate, associated safety recommendations. Where the State has established an accident investigation authority, the final report is issued by that authority. This report is made with the intention of preventing accidents or incidents and in no case has the purpose of creating a presumption of blame or liability.

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

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

'Investigation' A process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and/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.

'Investigation Interim Statement' The public communication used by the Authority on each anniversary of the accident or incident for informing those having a direct interest in the investigation regarding the progress of an ongoing investigation and any safety issues raised during the investigation.

'Maximum mass' Maximum certificated take-off mass.

'Observer' A representative of a concerned department of state who is authorized by the Authority to attend an investigation as an observer, or an Authority investigator authorized to attend an investigation being conducted by another concerned department.

'Occurrence' Any accident or incident associated with the operation of an aircraft.

'Operator' A person, organization or enterprise engaged in or offering to engage in an aircraft operation

'Other reportable incident' An occurrence, other than an accident or serious incident, which affects or could affect the safety of operations.

'Participant' A person authorized by the Authority to participate in an investigation being conducted by the Authority because in the opinion of the Authority that person has the expertise to contribute to achieving the Authority's mandate.

'Pilot-in-command' The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

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

'Rules and Standards' The Aircraft Accident and Incident Investigation Bureau rules and standards enabled by Ethiopian Aircraft Accident and incident Investigation proclamation

'Safety recommendation' A proposal of an accident investigation authority, based on information derived from an investigation, made with the intention of preventing accidents or serious incidents and which in no case has the purpose of creating a presumption of blame or liability for an accident or serious incident. In addition to safety recommendations arising from accident and serious incident investigation, safety recommendations may result from diverse sources, including safety studies.

'Safety recommendation of global concern' A safety recommendation made to a State civil aviation authority, to a regional certification authority, or to ICAO regarding a systemic deficiency having a probability of recurrence with potential for significant consequences, and requiring timely action to improve safety

'Serious incident' An incident involving circumstances indicating that there was a high probability of an accident and is 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 it comes to rest at the end of the flight and the primary propulsion system is shut down.

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

- a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- c) involves lacerations which cause severe hemorrhage, 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: A contracting State of the International Civil Aviation Organization (ICAO).

'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.

'State of Occurrence' The State in the territory of which an accident or serious 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 program (SSP). An integrated set of regulations and activities aimed at improving safety

1.2 REVIEW AND AMENDMENT

This Rules & standards will be reviewed from time to time when it is believed that any information in this Rules & standards is incorrect, inconsistent or outdated. Amendment effected in a timely manner whenever an annex-13 amendment is received. The Statutory provisions and other related documents are as given below:

Statutory Provisions

Statutory provisions, relating to the investigation of an aircraft accident or serious incident is:

Proclamation No 957/2016,

Related Documents

Documents and reference material relating to the content of these Rules & standards are:

- ICAO Annex 13
- ICAO Doc

1.3 AIRCRAFT ACCIDENT INVESTIGATION BUREAU (AIB)

The Aircraft Accident Investigation Bureau shall have exclusive jurisdiction for the conduct of safety investigations into aviation accidents and serious incidents. The provisions of this Rules & standards shall apply in respect of:

- a) Civil aviation in the territory of the Federal Democratic Republic of Ethiopia,
- b) Civil aircraft registered in the Federal Democratic Republic of Ethiopia, wherever they may be, subject to the Regulations of any foreign State in which they may be operating,
- c) Civil airports in the Federal Democratic Republic of Ethiopia, including all technical activities such as air traffic control and the installation, operation and maintenance of communication equipment, radio equipment, navigation aids, meteorology, and
- d) Air transport in general as specified in Annex 13.

1.4 STRUCTURE

For the purposes of carrying out Aircraft Accident and serious incident investigation, the Aircraft Accident Investigation Bureau is established under The Ministry of Transport. The AIB shall have qualified, well trained and experienced Investigators to effectively conduct accident and serious incident investigations.

The Organizational structure is shown at Appendix 'D'. The Aircraft Accident Investigation Bureau has the following main functions and responsibilities,

- (a) Obtain preliminary report from any person or persons authorized
- (b) Conduct the investigation and administrative work of the AIB.
- (c) forward the report made public by the Government to the States as required under Annex 13;

- (d) forward the report made public by the Government to ICAO if the mass of the aircraft involved in accident or serious incident is more than 5,700 kg;
- (e) follow-up the recommendations made and ensure that they are implemented by the concerned agencies;
- (f) formulate safety recommendation on the basis of safety studies, including induction of new technology to enhance safety, conducted from time to time.
- (g) establish and maintain an accident and serious incident database to facilitate the effective analysis of information on actual or potential safety deficiencies obtained, including that from its serious incident reporting systems, and to determine any preventive actions required;
- (h) process obligations of the Central Government under Annex 13 to the Convention relating to International Civil Aviation Organization signed at Chicago on the 7th day of December, 1944 as amended from time to time.
- (i) develop a formal training program and plan for accident investigators, follow up its appropriate implementation and maintain training records.

1.5 FUNDING

The MOT shall:

- Provide sufficient funds and allocate budget to enable the AIB to properly investigate accidents and serious incidents that fall within its area of responsibility; and
- Establish provisions for providing supplementary funding based on the requirements.

2. APPLICABILITY

This Rules & standards are applicable only to civil aircraft accidents and serious incidents. The contents are applicable to aircraft registered in any other contracting State and operated pursuant to an agreement for the lease, charter or interchange of the aircraft or any similar arrangement by an operator who has his principal place of business, or, if he has no such place of business, his permanent residence in Ethiopia, provided that an agreement has been reached between the government of the State of registry of the Aircraft and the Government of Ethiopia in regard to transfer of functions and duties pursuant to Article 83 bis of the Chicago Convention. The contents are not applicable to aircraft registered in Ethiopia and operated pursuant to an agreement for the lease, charter or interchange of aircraft or any similar arrangement by an operator who has his principal place of business or if he has no such place of business, his permanent residence in a contracting State, provided that an agreement has been reached between the Government of Ethiopia and the Government of that contracting state in regard to transfer of functions and duties pursuant to Article 83 bis of the Chicago Convention.

3. GENERAL

3.1 Objective:

The sole objective of the investigation of an accident or serious incident shall be the prevention of accidents and serious incidents. It is not the purpose of this activity to apportion blame or liability. The results of the investigation are used to ascertain measures that would best tend to prevent similar accidents or serious incidents in the future and is an important method of accident prevention.

3.2 Protection of evidence

MOT shall designate the accident Investigator-In-Charge of the investigation and the investigator-in-charge shall take all reasonable measures to protect the evidence and to maintain safe custody of the aircraft, its documents and contents for such a period as may be necessary for the purposes of an investigation. Protection of evidence shall include the preservation of wreckage in the hangar/storage facilities, by photographic or other means of any evidence which might be removed, efface, lost or destroyed. Safe custody shall include protection against further damage, access by unauthorized persons, pilfering and deterioration.

When a request is received from the state of registry, the state of operator, the state of design or the state of manufacture that the aircraft, its contents, and any other evidence remain undisturbed pending inspection by an accredited representative of the requesting state;

Ethiopia 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, mail 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

3.3. Release from custody

Subject to the provisions of 3.2, the accident investigator-in-charge shall release custody of the aircraft, its contents or any parts thereof as soon as they are no longer required 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 Investigator-in-charge 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 State finds it impracticable to grant such access, it shall itself effect removal to a point where access can be given.

3.4 Conflicts of Interest

1.The members of the AIB shall not directly or indirectly have an interest in or be an owner, shareholder, director, officer, partner, or otherwise:

- a) be engaged in an aviation undertaking or business; or
 - b) have an interest in the manufacture or distribution of aircraft or aircraft equipment components.
2. On appointment to the AIB, members of the Investigators shall set aside conflicts of interest detailed in Section 1
 3. During their terms of office, members of the Investigators shall not accept or hold any office or employment, or carry on any activity inconsistent with the performance of their duties under the Proclamation, this Rules and Standards and policies and procedures of the AIB.
 4. Civil aviation authority experts assigned to participate in an investigation being conducted by the AIB shall not be engaged in any duties associated with the civil aviation authority for the duration of their involvement in the investigation.

4. NOTIFICATION

4. 1 Notification of Accidents and Series Incidents

An aircraft accident/serious incident shall be notified in accordance with the provisions of Annex 13 ICAO Convention.

a) Mandatory notification of Accident and Incident

Where an aircraft accident or serious incident takes place, mandatory to the owner, operator, pilot-in- command and any crew member of the aircraft, the operator of the airport, and any air traffic controller having knowledge of an accident or incident shall notify to the AIB and provide as much information as is possible as soon as possible and by the quickest means available

b) Crew Statements

As soon as possible after the accident or serious incident, each crew member shall forward to the Authority, a statement setting forth the facts, conditions, and circumstances relating to the accident or serious incident as they appear to the member. . (If the crew member is incapacitated, the member shall submit the statement as soon as the member is physically able to do so. The format and the content of the accident or serious incident information should be as given in the Appendix 'C'.

4.1.1 Accidents or Serious Incidents to Aircraft Registered with another Contracting State When an accident or a serious incident occurs in Ethiopia; to an aircraft of another contracting state

4.1.1.1 For accidents and serious incidents that occurred in the territory of Ethiopia, the Accident Investigation shall forward a notification of accidents and serious incidents with a minimum of delay and by the most suitable and quickest means available to:

- a) State of Registry;
- b) State of the Operator;
- c) State of Design;
- d) State of Manufacture; and
- e) The (ICAO), when the aircraft involved is of a maximum mass of over 2250 kg or is a turbojet-powered aero plane in accordance with paragraph 4.1., 4.2, 4.3 and 4.4 of the Annex.

4.1.1.2 A list of addresses of aircraft accident and incident investigation authorities can be found in the Aircraft Accident and Incident investigation, Part I – Organization and Planning (Doc 9756).

4.1.1.3 As soon as it is possible to do so, the details omitted from the notification as well as other known relevant information shall be dispatched to the State of Manufacture, the State of Design, State of Registry, the State of the Operator and ICAO. Where an accident or a serious incident occurs:

- a) Outside Ethiopia involving an Ethiopian registered aircraft or an aircraft operated by Ethiopian operator, the relevant person (the pilot in command, the operator of the aircraft) shall as soon as possible notify the AIB by the quickest means after he becomes aware of the accident or serious incident,
- b) In the case of an accident occurring in or over Ethiopia, the local administration or police authorities shall notify the occurrence of the accident and the place where it occurred.

4.2 Format and content

The notice to the Director of AIB referred to the above paragraph 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 lack of complete information:-

- a) For accidents the identifying abbreviation ACCID, for serious incidents INCID;
- b) Manufacturer, mode, 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 serious 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 serious incident area, as well as an indication of access difficulties or special requirements to reach the site;
 - l) 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.
1. It may be helpful to provide the location of the accident or incident as well as the elevation and topography of the accident site, if it is known.
 2. It is useful to first provide the number of persons aboard (crew, passengers) and then the injuries they sustained.

4.3 Language

The notification shall be prepared in one of the working languages of ICAO, taking into account the language of the recipient(s).

4.4 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.

4.5 Action to be taken on receipt of notification

The State of Registry, the State of the Operator, the State of Design and the State of Manufacture should acknowledge receipt of the notification of an accident or serious incident (4.1 refers).

4.6 Responses to Notification

4.6.1 Upon receipt of a notification of an accident or a serious incident specified in Appendix which occurs outside Ethiopia involving an Ethiopian registered aircraft or an aircraft operated by an Ethiopian operator, the Accident Investigation Bureau (AIB) shall do the following:

- (a) Acknowledge receipt of the notification;
- (b) Where the State of Occurrence, which is investigating the accident or serious incident, is a Contracting State, provide the State with the following information with the least possible delay:
 - (i) any relevant information he has regarding the aircraft and flight crew involved in the accident or serious incident; and
 - (ii) if Ethiopia is the State of the Operator, details of any dangerous goods on board the aircraft.
- (c) inform the State referred to,
 - i) Whether the MOT intends to appoint or has appointed an accredited representative; and
 - ii) the States having a direct interest in the accident or incident, and when required to ICAO;
 - iii) Involved air operator, operators of airports and air traffic control units, and aircraft manufacturer; and
 - iv) any other local authorities and organizations that could assist the Authority in its investigation
- (d) provide the information as specified in Schedule 1 of the Rules & Standards; and
- (e) Advise the entities noted in Subsection (i) and (ii) of any investigation that the Authority plans to conduct, including the type and scope of the investigation

4.6.2. If in the course of an investigation the Authority becomes aware or it suspects that an act of unlawful interference was involved, the Authority shall immediately initiate action to ensure that the security authorities of Ethiopia and of the State(s) concerned are so informed

4.7 Forwarding of Notification

When accidents or serious incidents occur in the territory of the state of registry, in a non-contracting state or outside the territory of any state, when Ethiopia as the state of registry institutes the investigation of an accident or serious incident, a notification shall be forward, in accordance with 4.2 above, with a minimum of delay and by the most suitable and quickest means available, to:

- the State of the Operator;
- the State of Design;
- the State of Manufacture; and
- the International Civil Aviation Organization, when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered airplane.

However when the state of occurrence is not aware of a serious incident, the State of Registry or the state of 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.

4.8 Receipt of Notification

Upon receipt of the notification, the State of the Operator, the State of Design and the State of Manufacture 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 serious incident. Each State 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.

4.9 Voluntary Reporting

- Any person having knowledge of any safety-related event, other than an accident or incident, may make a voluntary report to the AIB and provide any information that the person believes is relevant.
- Where a voluntary report is made to the AIB, no person shall release the identity of the person making the report or any information that could reasonably be expected to reveal that person's identity, unless the person making the report authorizes, in writing, its release
- A report made to the AIB under a voluntary reporting system shall not be used against the person who made the report in any disciplinary, civil, administrative and criminal proceeding.
- The protection provided in Sections b) and c) regarding the identity of the person making the voluntary report shall not apply to situations involving unlawful acts, gross negligence or willful infractions by that person, or unless an appropriate authority determines in accordance with national legislation, the value of its disclosure or use in any particular instance, outweighs the adverse impact such action may have on aviation safety.

5. INVESTIGATION

5.1 Accident or Serious Incident Occurred In the Territory of Ethiopia

When an accidents or serious incidents occurred in the territory of Ethiopia, AIB institutes an investigation into the circumstances of the accidents or serious incidents and be responsible for the conduct of the investigation in compliance with the provisions of annex-13. It 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 shall use every means to facilitate the investigation.

5.1.1 DECISION AS TO THE TYPE OF INVESTIGATION

The Appointed Head of the Authority shall establish policies respecting the types of aircraft accidents or incidents to be investigated. The following criteria shall apply when the Authority makes its decision as to the types of its investigations:

- a) all accidents shall be investigated;
- b) all serious incidents involving aircraft of a maximum mass of over 2 250 kg shall be investigated
- c) all serious incidents should be investigated; and
- d) other types of incidents may be investigated

5.1.2 Delegation of Investigation

a) Where Ethiopia is responsible under the provisions of Annex 13 to institute an investigation into an aircraft accident or serious incident, the AIB may delegate the whole or any part of an investigation to another State, to a regional accident and incident investigation organization or to a department by mutual arrangement and consent. In any event, the Authority shall use every means to facilitate the investigation.

b) Where the AIB has delegated the investigation to another department within the state.

- i) the delegated department is required to investigate under the provisions of AIB Act, and to provide its final investigation report and recommendations to the Authority; and
- ii) the AIB may appoint an observer to such an investigation

5.1.3 Accidents or Serious Incidents in the Territory of a Non-Contracting State

When an accident or serious incident has occurred on Ethiopian registered aircraft in the territory of a non-Contracting State which does not intend to conduct an investigation in accordance with Annex 13, the State of Registry or, failing that, the State of the Operator, the State of Design or the State of Manufacture should endeavor 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.

5.2 Accidents or Serious Incidents outside the Territory of Ethiopia

When the location of the accident or the serious incident cannot definitely be established, 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 by mutual arrangement and consent.

5.2.1 States nearest the scene of an accident in international waters shall provide such assistance as they are able and shall, likewise, respond to requests by the State of Registry.

5.2.2 If the State of Registry is a non-Contracting State which does not intend to conduct an investigation in accordance with Annex 13, the State of the Operator or, failing that, the State of Design or the State of Manufacture should Endeavour to institute and conduct an investigation. However, such a State may delegate the whole or any part of the investigation to another State by mutual arrangement and consent.

5.3 Foreign Investigations

Where the AIB has been notified of an aircraft accident or serious incident that occurred outside the territory of Ethiopia involving a state aircraft, an aircraft operated by an Ethiopia operator, or an aircraft designed or manufactured in the state, the AIB shall:

- a) Acknowledge receipt of the notification
- b) Provide the notifying State with the following information with the least possible delay:
 - i) any relevant information regarding the aircraft and flight crew involved in the accident or serious incident; and;
 - ii) if Ethiopia is the State of the Operator, details of any dangerous goods on board the aircraft
- c) inform the notifying State as to:
 - i) whether the state intends to appoint or has appointed an accredited representative; and
 - ii) if such accredited representative will be or has been appointed and will be travelling to the State in which the investigation is being carried out, the contact details and the expected date of arrival of the accredited representative in such State.
- d) appoint an accredited representative, if requested to do so by the State conducting an investigation into an accident, or a serious incident involving an aircraft of a maximum mass of over 2 250 kilograms

5.4 Organization and conduct of the investigation

The Aircraft accident investigation Bureau shall have unrestricted authority in the conduct of investigations and shall comply with the provisions of Annex-13. The investigation shall normally include:

- a) gathering, recording and analysis of all relevant information on that accident or serious incident;
- b) the protection of certain accident and incident investigation records.
- c) if appropriate, the issuance of safety recommendations;
- d) if possible, the determination of the causes and/or contributing factors; and
- e) the completion of the final report.

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.

5.4.1 Any investigation conducted in accordance with the provisions of this Annex -13 shall be separate from any judicial or administrative proceedings to apportion blame or liability.

5.4.2 The Ethiopian Aircraft accident investigation bureau should develop documented policies and procedures detailing its accident investigation duties. These should include: organization and planning; investigation; and reporting.

5.4.3 AIB ensures that any investigations conducted under the provisions of Annex -13 have unrestricted access to all evidential material without delay.

5.4.4 The Inspectors appointed as Accident investigators by the Director of Accident Investigation (AIB) with other technical experts called from any source shall together form an Accident Investigation team. The assigned team and support personnel are under the direct supervision of the Accident Investigation and shall strictly follow the procedure of their assigned group duties and responsibilities. All inspectors assigned as member of investigation must be aware of their various tasks and have the appropriate qualification to perform the investigation and will be responsible to the accident investigation team until released by the AIB. Members of the AIB shall not directly or indirectly have an interest in or be an owner, shareholder, director, officer, partner, or otherwise:

- a) be engaged in an aviation undertaking or business; or
- b) have an interest in the manufacture or distribution of aircraft or aircraft equipment or components.

5.4.5 The investigation personnel of the AIB are issued government credentials; the credentials contain the investigators' photographs and provide the legal basis for their work during investigations of accidents and incidents.

5.5 Investigator-in-charge – Designation

The MOT shall designate the investigator-in-charge of the investigation and shall initiate the investigation immediately to conduct the in investigation.

5.5.1 Investigator-in-charge - Access and control

The investigator-in-charge shall:-

- a) have free and unhampered access to the site of the accident or serious incident as well as to the aircraft, its contents or its wreckage;
- b) have immediate and unrestricted access to and use of the contents of the flight recorders, ATS records and any other recordings;
- c) have access to and be provided with the results of examination of the bodies of victims or of tests made on samples taken from the bodies of the victims;
- d) have immediate access to and be provided with the results of examinations of the persons involved in the operation of the aircraft or of tests made on samples taken from such persons; and
- e) have free access to any relevant information or records held by the owner, the operator, the operator's maintenance contractors and sub-contractors, the hirer, the designer or the

manufacturer of the aircraft and by the authorities for civil aviation or airport operation or ATS.

5.6 Investigation – Powers of Investigators

5.6.1 Investigators appointed under AIB Act may exercise the following powers for the purpose of investigating aircraft accidents or incidents:

a) to call before him and examine all persons as the investigator thinks fit, and to require such persons to answer any questions or furnish any information:

b) to require the protection and preservation of:

i) the aircraft accident or incident site(s);

ii) the aircraft and any parts thereof, and;

iii) all records and documents associated with the occurrence;

c) Unhampered access to enter and search any place where an investigator believes on reasonable grounds that there is anything relevant to the conduct of an investigation of an accident or incident and to seize anything that is found in the course of that search. (An investigator shall not exercise the powers in relation to a particular place without the consent of the person in charge of that place unless those powers are so exercised under the authority of a warrant, or by reason of exigent circumstances, it would not be practical for the investigator to obtain a warrant.);

d) to prohibit or limit access to the area immediately surrounding the place at which anything involved or likely to have been involved in an accident or incident is located for such period as is necessary for the purposes of preserving and protecting evidence. (The investigator shall have regard to the desirability of minimizing any resulting disruption to transportation services.);

e) to cause such tests, including tests to destruction, of anything that was seized for the purposes of the investigation. (To the extent that it is practical and safe to do so, and does not unreasonably impede the progress of the investigation, the investigator shall take all reasonable measures to invite the owner and any person who appears on reasonable grounds to be entitled to the component being tested to be present at any such tests.);

f) to require the provision and to make copies of any documents that the investigator may consider relevant to the accident or incident;

g) to retain any such documents until the completion of the investigation, or as the case may be, it is determined that an investigation shall not be carried out;

h) to take statements from all such persons as the investigator thinks fit and to require any such person to make and sign a declaration of the truth of the statements made by the person;

i) to require a person(s) who was(were) directly or indirectly involved in the operation of an aircraft to submit to a medical examination, where the investigator believes on reasonable grounds that the medical condition is, or may be, relevant to the investigation:

The notice for medical examinations shall be made in writing and signed by the investigator; and

This requirement shall not be construed as a requirement that the person submit to any procedure involving surgery, perforation of the skin or any external tissue or the entry into the body of any drug or foreign substance

j) to require a physician or other practitioner to provide medical information concerning a patient who the investigator believes on reasonable grounds that information concerning a patient that is relevant to that investigation. (The notice for medical information shall be made in writing and signed by the investigator);

k) to cause such an autopsy or medical examination to be performed on a body of a deceased person where the investigator believes on reasonable grounds that the information derived from the autopsy and examination is, or may be, relevant to the conduct of the investigation. (The notice for medical information shall be made in writing and signed by the investigator);

l) to require the person having custody of the body of the deceased person or other human remains to permit the performance of that autopsy or that medical examination. (The notice for medical information shall be made in writing and signed by the investigator); and

m) to call on the services of local authorities or other authorized persons to ensure protection of the accident site, including the aircraft and its contents, until such time as the Authority is able to directly take over custody and security of the aircraft and its contents.

5.6.2. Before acting under Section 5.6.1, the investigator shall produce the investigator's certificate of appointment as proof of his identity and powers, when requested to do so by an involved person.

5.6.3 No person shall refuse or fail to produce information to an investigator, or to attend before an investigator and give a statement, or to provide information, to submit to a medical examination, or to make the body of a deceased person or other human remains available for the performance of an autopsy or medical examination imposed in Section 5.6.4

5.6.4 Investigators appointed under Subsection 18 (e) of the Act may apply for a court order from the responsible department of the state to compel compliance with orders or rules & standards issued under Section 5.6.1

5.7 Flight recorders Accidents and serious incidents

Effective use shall be made of flight recorders in the investigation of an accident or an incident. The IIC shall arrange for the read-out of the flight recorders without delay.

When an aircraft involved in an accident or a serious incident lands in a State other than the State of Occurrence, Ethiopia 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.

5.8 FDR Readout Facilities

In the event that the Accident Investigator-in-charge (IIC) does not have adequate facilities to read out the flight recorders, it should use the facilities made available to it by other States, giving consideration to the following:

- a) the capabilities of the read-out facility;
- b) the timeliness of the read-out; and
- c) the location of the read-out facility.

5.9 Autopsy Examinations

Accident investigator-in-charge may provide relevant and timely information to the families of accident survivors, victims identification,

The Accident Investigator-in-charge (IIC) 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 aviation accident investigation. These examinations shall be expeditious and complete.

5.9.1 Medical examinations

The Medical personnel, coroner office, the disaster victims' identification team, and Aircraft operator have an important role in identifying and caring for the remains of victims from the manifest in which they have registered. They should arrange for medical examination of the crew, passengers and involved aviation personnel, by a physician, preferably experienced in aviation accident investigation. These examinations should be expeditious.

5.10 Investigation-Coordination

- a) The Authority shall take all reasonable measures to ensure that the investigation procedures and practices that it follows in relation to aircraft accidents and incidents are compatible to the degree possible with investigation requirements, procedures and practices followed by other departments, regulatory authorities, police forces and coroners. 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.

b) The Authority shall make all reasonable efforts to enter into agreements to provide for the coordination of activities between the Authority and the entities noted in Section (a), with respect to:

- i) investigation procedures and practices;
- ii) requirements for reporting aircraft accidents and incidents;
- iii) procedures to be followed in the event that conflicting interests arise during their activities with respect to aircraft accidents or incidents

c) The Authority may investigate aircraft accidents and incidents that involve both State and civil aircraft and facilities. For such situations, the Authority shall take all reasonable measures to ensure that its investigation activities are coordinated with those other on-going investigations, if any.

d) Where a department is notified of an aircraft accident or incident that the Authority has the power to investigate under the Act, the department shall:

- i) notify the Authority with particulars of the aircraft accident or incident; and
- ii) advise the Authority of any investigation that the department plans to conduct and of any remedial measures that the department plans to take.

5.11 Informing Aviation Security Authorities

Accident Investigation-in-Charge (IIC) shall inform immediately Ethiopian 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 and initiate action to ensure that the aviation security authorities of Ethiopia and the State(s) concerned are so informed.

5.12 Protection of accident and incident investigation records/

The accident investigator-in-charge shall not make the following records available for purposes other than accident or serious incident investigation, unless the competent authority designated by the state determines, in accordance with national laws, that their disclosure or use outweighs the likely adverse domestic and international impact such action may have on that or any future investigations:

- a) cockpit voice recordings and airborne image recordings and any transcripts from such recordings; and
- b) records in the custody or control of the accident investigation authority being:
 - 1) all communications between persons having been involved in the operation of the aircraft;
 - 2) medical or private information regarding persons involved in the accident or serious incident;

3) all statements taken from persons by the investigation authorities in the course of their investigation

4) recording and transcripts of recordings from air traffic control unit

5) 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

6) the draft final report of an accident or incident investigation

5.12.1 The records listed above shall be included in the Final Report or its appendices only when pertinent to the analysis of the accident or serious incident. Parts of the records not relevant to the analysis shall not be disclosed.

5.12.2 The names of the persons involved in the accident or incident **shall not be** disclosed to the public by the accident investigation authority.

5.12.3 Requests for records in the custody or control of the AIB shall be directed to the original source of information, where available. AIB retains, where possible, only copies of records obtained in the course of an investigation.

5.12.4 AIB takes 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.

5.12.5 When issuing or receiving a draft final report AIB shall not disclose it to the public.

5.13 Re-opening of investigation

After the investigation has been closed, if new and significant evidence becomes available, the accident investigator-in-charge which conducted the investigation shall re-open it. However, when the investigator-in-charge which conducted the investigation did not institute it, the MOT shall first obtain the consent which instituted the investigation. Where an aircraft which was considered missing following an official search is subsequently located consideration may be given to reopening the investigation.

5.14 Responsibility of any other state

When an information is requested from the State conducting the investigation of an accident or serious incident, provide that State with all the relevant information available to it.

5.15 Participation in the investigation

When an aircraft accident occurred in Ethiopia other than Ethiopian registered, the State of Registry, the State of the Operator, the State of Design, the State of Manufacture and any other states, which on request provide information, facilities or experts shall each be entitled to appoint an accredited representative to participate in the investigation with proper credential.

5.16 Participation of Observer

Subject to any conditions that the Authority may impose, a person may attend as an observer at an investigation by the Authority if the person is designated as an observer by a concerned department of the state having a direct interest in the subject matter of the investigation

The Authority may remove or ask to have removed an observer or a participant from an Investigation;

- (a) if that person contravenes a condition imposed by the Authority on the person's presence, or
- (b) if, in the Authority's opinion, the person has a conflict of interest that impedes the conduct of the investigation.

5.17 Participation of Designers & Manufacturers

When neither the State of Design nor the State of Manufacture appoint an accredited representative, Ethiopia as the State conducting the investigation should invite the organizations responsible for the type design and the final assembly of the aircraft to participate, subject to the procedures of the State conducting the investigation.

5.18 Participation of other states

An accredited representative shall be appointed on request from other states that provide information, facilities or experts to the State conducting the investigation to participate in the investigation.

The facilities or services of which have been, or would normally have been used by an aircraft prior to an accident or serious incident, and which has information pertinent to the investigation, shall provide such information to the State conducting the investigation.

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

5.19 Appointing of accredited representatives & advisors

Ethiopia may appoint an accredited representative to participate in the investigation into an accident or serious incident which occurs in another State and one or more advisers to assist the accredited representative in any of the following cases,

The accredited representative is appointed by the Ministry of Transport with official letter; following the recommendation by the AIB

a) where Ethiopia is the State of Registry or State of the Operator of the aircraft involved in the accident or serious incident; or

b) where Ethiopia has, at the request of the Contracting State conducting the investigation, provided information, facilities or experts to the State in connection with the investigation.

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. In case of foreign registered aircraft, the State of Registry, State of Operator, State of Design or State of Manufacturer shall each be entitled to appoint an accredited representative and an advisor to participate in the investigation. The State of Registry or the State of the Operator may appoint one or more advisers, proposed by the operator, to assist its accredited representative.

When neither the State of Registry, nor the State of the Operator appoints an accredited representative, Operator should be invited to participate, subject to the procedures of the investigation.

5.20 Scopes of participation

where a person referred to section 5.15,17and18 shall be entitled to participate in all aspects of an investigation under the control of the investigator-in-charge and shall be entitled, in particular, to:-

a) visit the scene of the accident;

b) examine the wreckage;

c) obtain witness information and suggest areas of questioning;

d) have full access to all relevant evidence as soon as possible;

e) receive copies of all pertinent documents;

f) participate in read-outs of recorded media;

g) participate in off-scene investigative activities such as component examinations, technical briefings, tests and simulations;

h) participate in investigation progress meetings including deliberations related to analysis, findings, causes and safety recommendations and

i) make submissions in respect of the various elements of the investigation.

5.21 Obligation of Accredited Representatives & their Advisors

a) An accredited representatives and advisors shall provide the investigator-in-charge with all relevant information available to them; and

b) Shall not disclose any information on the progress and findings of the investigation without the express consent in writing of the investigator-in-charge.

5.22 Entitlement of appointed experts

Subject to the Standards and Recommended Practices contained in ICAO Annex 13, a state with a special interest in an accident by virtue of fatalities or serious injuries to its citizens may, upon request appoint an expert to participate in the investigation.

An appointed expert 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 and information on the progress of the investigation.

c) participate in the identification of victims;

d) assist in questioning surviving passengers who are citizens of the expert's State; and

e) receive a copy of the Final Report

5.23 Rights and Entitlements Granted to an Observer or Participant

The rights and entitlements granted to an observer or participant shall not, unless otherwise authorized by the Appointed Head, include attendance at an interview of a witness during an investigation.

5.24 Entitlement on Recording and Transcription of Recordings

Pursuant to Subsection 12 (e), where the owner of the component being tested, and any person who appears on reasonable grounds to be entitled to it are invited to observe such tests, these persons may:

a) Record or cause to be recorded the condition of the component being tested prior to during and after the test; and

b) be represented by a person having technical knowledge and expertise in the subject-matter of the test

6. INTERIM, DRAFT AND FINAL REPORT

6.1 Investigation Interim Statement

If the Final Report on an investigation cannot be made publicly available within twelve months of the aircraft accident or incident, the Authority shall issue an Investigation Interim Statement on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues rose. The Authority shall provide the Investigation Interim Statement referred to in Section 41 to the following:

- a) any concerned department of state;
- b) The States having a direct interest in the occurrence, and if appropriate to ICAO; and
- c) States having suffered fatalities or serious injuries to its citizens.

The Authority shall make the Investigation Interim Statement publicly available

6.2 DRAFT REPORT

Accident investigator-in-charge conducting the investigation shall send a copy of the draft Final Report to the State that instituted the investigation and to all States that participated in the investigation, inviting their significant and substantiated comments on the report as soon as possible. The draft Final Report of the investigation shall be sent for comments to:

- a) the state that instituted the investigation
- b) the State of Registry;
- c) the State of the Operator;
- d) the State of Design; and
- e) the State of Manufacture and
- f) any state that participated in the investigation

Intended safety recommendations are to be included in the draft final report.

If the accident investigator-in-charge conducting the investigation receives comments within (60) 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 State conducting the investigation receives no comments within sixty (60) days of the date of the first transmittal letter, it shall issue the Final Report in accordance with 6.4, unless an extension of that period has been agreed by the States concerned.

Relevant records 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 serious incident, without the express consent of the Authority, unless such reports or documents have already been published or released

by the accident investigator-in-charge.6.2.1 The state conducting the investigation should send, through the state of the operator, a copy the draft final report to the operator to enable the operator to submit comments on the draft final report.6.2.2 The state conducting the investigation should send, through the state of design and the state of manufacture, a copy of the draft final report to the organizations responsible for the type design and the final assembly of the aircraft to enable them to submit comments on the draft final report.

6.3 FINAL REPORT

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 its citizens; and
- h) any State that provided relevant information, significant facilities or experts.

6.3.1 The format of the final report in the appendix should be used. However, it may be adapted to the circumstances of the accident or incident.

6.4 RELEASE OF THE FINAL REPORT TO THE PUBLIC

In the interest of accident prevention, the Accident Investigation Bureau shall make the Final Report publically available by posting on the internet as soon as possible and if possible within twelve month.

6.5 SENDING THE FINAL REPORT TO ICAO

Accident investigator-in-charge conducting the investigation involving an aircraft of a maximum mass of over 5 700 kg shall send a copy of the Final Report to the International Civil Aviation Organization (ICAO)

6.6 SAFETY RECOMMENDATION

6.6.1 At any stage the investigation of an accident or incident, the accident investigation authority of the state conducting the investigation 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.

6.6.2 Safety recommendations issued by the Authority should be sent to those persons or organizations of the aviation community that have a direct interest in the safety issue that was the basis for the safety recommendation, as well as to other members of the aviation community who would benefit from the information, including but not limited to the following:

- a) action addressee for the safety recommendation;
- b) involved government departments;
- c) involved States and accident investigation authorities;
- d) involved stakeholders, such as but not limited to the airline, maintenance organization, , air traffic services provider, and airport operator; and
- e) Others that may benefit from lessons learned.

6.7 ACTION ON SAFETY RECOMMENDATION

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.

A state conducting the investigation or any other state issuing a safety recommendation should implement procedures to record the responses to the safety recommendation issued.

A state that receives a safety recommendation should implement procedures to monitor the progress of the action taken in response to that safety recommendation.

7. ADREP REPORTING

7.1. PRELIMINARY REPORT

When an aircraft involved in an accident of a maximum mass of over 2,250kg in Ethiopia, the accident investigation-in-charge 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 Manufacture;
- e) any State that provided relevant information, significant facilities or experts; and

- f) the International Civil Aviation Organization.

7.2. ACCIDENTS TO AIRCRAFT OF 2, 250 KG OR LESS

When an aircraft, not covered by 7.1, is involved in an accident and when airworthiness or matters considered being of interest to other States are involved, the State 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 Manufacture; and
- e) any State that provided relevant information, significant facilities or experts.

7.3. Language

The Preliminary Report shall be submitted to appropriate States and to the International Civil Aviation Organization in one of the working languages of ICAO.

7.4 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.

7.5 Accident/Series incident Data Report

When an aircraft involved in an accident of a maximum mass of over 2,250 kg, the accident investigator-in-charge conducting the investigation shall send, as soon as practicable after the investigation, the Accident Data Report to the International Civil Aviation Organization.

7.6. Additional information

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

7.7 Serious Incidents to aircraft over 5,700 kg

Accident investigator-in-charge conducting an accident investigation of an aircraft, maximum mass of over 5,700 kg, shall send, as soon as is practicable after the investigation, the serious incident Data Report to the International Civil Aviation Organization.

8. ACCIDENT PREVENTION MEASURES

8.1 The AIB establishes 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.

8.2 State authorities responsible for the implementation of the SSP should have access to the accident and incident database to support their safety responsibilities.

8.3 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 organization in another State, they shall also be transmitted to that State's accident investigation authority.

8.4 The AIB establishes a non punitive voluntary incident reporting system. Any person having knowledge of any accident, incident or special situation associated with the operation of an aircraft is encouraged to voluntarily report to the Office any information that he believes is relevant.

9. OBSTRUCTION OF INVESTIGATION

9.1 No person shall obstruct or impede an Investigator or any person acting under the authority of the Head of the Aircraft Accident Investigation Bureau in the exercise of any powers or duties in accordance with this Rules and Standards.

9.2 No person shall without reasonable excuse fail, after having had the expenses, if any, to which he is entitled under this Rules & standards tendered to him, to comply with any summons of an Investigator holding an investigation.

10. PENALTIES

The AIB takes appropriate legal and/or administrative action on persons and organizations that fail to comply with the provisions of with this Rules and Standards.

11. SPECIFIC REPORTS

Occurrences, for which specific notification and reporting methods must be used, by a captain or co-pilot or an Operator, are described below:

11.1 Air Traffic Incident

A captain or co-pilot shall without delay notify the air traffic service unit concerned of the incident and shall inform them of his intention to submit an air traffic incident report after the flight has ended, whenever an aircraft in flight has been endangered by a near collision with any other flying device, faulty air traffic procedure and failure of air traffic services facilities.

11.2 Airborne Collision Avoidance System Resolution Advisory

A captain or co-pilot shall notify the air traffic service unit concerned and submit an ACAS report to the AIB whenever an aircraft has maneuvered in response to an ACAS Resolution Advisory.

11.3 Bird Hazards and Strikes

Captain or co-pilot shall immediately inform the local air traffic services unit whenever a potential bird hazard is observed and if it's occurred, that results in significant damage to the aircraft or the loss or Malfunction of any essential service. The captain or co-pilot or the Operator shall submit a written bird strike report after landing to AIB and to the concerned.

11.4 In-flight Emergencies with Dangerous Goods on Board,

If an in flight emergency occurs and situations permits, a Commander shall inform the appropriate air traffic service unit of any dangerous goods on board. After landing if occurrence has been associated with the transport of dangerous goods, a captain or co-pilot shall comply with the reporting requirements to the AIB.

11.5 Unlawful Interference

Following an act of unlawful interference on board of aircraft, the captain or co-pilot shall submit a report to the local Security and to the Head of AIB.

11.6 Encountering Potential Hazardous Conditions

A captain or co-pilot shall notify to the appropriate air traffic services unit any irregularity in a ground or navigational facility, a meteorological phenomenon or a volcanic ash cloud if encountered during flight.

12. CO-OPERATION WITH THE MEDIA AND OTHER AUTHORITIES

12.1 Co-operation with the Media

Release of information during the field investigation, particularly at the accident scene, shall be limited to factual developments, and shall be made only through a person designated by the MOT.

All information concerning the accident or serious incident obtained by any person or organization participating in the investigation shall be passed to the IIC through appropriate channels before being provided to any individual outside the investigation.

No information concerning the accident or serious incident may be released to any media or any person before initial release by the Authority with prior consultation and approval of the IIC.

12.2 Cooperation with other Authorities

At the site of accident or serious incident, the accident investigation Bureau shall cooperate with other authorities, particularly with judicial authority, search and rescue service, police, coroner's

office, medical personnel, airport authority, fire fighting service and other military and civil organizations.

For the purpose of creating adequate conditions and in achieving good cooperation with other State authorities, AIB is obliged to provide necessary working conditions for the investigator in charge and the accident investigation team/ commission.

13. PRE-ACCIDENT PLAN

The accident investigation office is responsible for the effective and efficient use of all resources committed to the investigation. It is important the AIB always be in a position to react on time and dispatch accident team to the scene of the accident by the most expeditious means available. The success of an accident investigation depends on how well the pre-accident plan is carried out. A pre-accident plan is viable only if it is kept current and rehearsed.

The AIB is therefore responsible to prepare and develop a pre-accident plan to coordinate and manage all required resources in a manner that will best develop all pertinent facts, conditions and circumstances surrounding the accident.

APPENDIX - A**LIST OF EXAMPLES OF SERIOUS INCIDENTS**

Serious incidents are the incidents involving circumstances indicating that an accident nearly occurred. Following is the list of typical examples of incidents that are likely to be serious incidents. The list is not exhaustive and only serves as guidance to the definition of serious incident.

- Near collisions requiring an avoidance maneuver to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate.
- Controlled flight into terrain (CFIT) only marginally avoided.
- Aborted take-offs on a closed or engaged runway.
- Take-offs from a closed or engaged runway with marginal separation from obstacle(s).
- Landings or attempted landings on a closed or engaged runway.
- Gross failures to achieve predicted performance during take-off or initial climb.
- Fires and smoke in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents.
- Events requiring the emergency use of oxygen by the flight crew.
- Aircraft structural failures or engine disintegrations not classified as an accident.

- Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft.
- Flight crew incapacitation in flight.
- Fuel quantity requiring the declaration of an emergency by the pilot.
- Take-off or landing incidents such as undershooting, overrunning or running off the side of runways.
- System failures, weather phenomena, operations outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft.
- Failures of more than one system in a redundancy system mandatory for flight guidance and navigation.

APPENDIX - B

CONFIDENTIAL

ACCIDENT /INCIDENT NOTIFICATION

The following information is preliminary, may be unverified and subject to change it is not for the public release without the permission of the MOT/AIB investigation in charge.

Date of issue		Time of issue (UTC)		Reference Number	
	State of Registry				

Addresses	State of Operator	
	State of Design	
	State of Manufacture	
	ICAO and	
	Other	
	MOT	
	AIB	
Identifying Abbreviations:		
Manufacturer, Model , Nationality, Registration marks & Serial Number of the Aircraft:		
Name of owner, operator, & Hirer of the Aircraft:		
Qualification of the pilot in command, & nationality: of the crew and passengers :		
Date and time(UTC):		
Last point of departure:		
point of intended landing:		
Position of the Aircraft with reference to some easily defined geographical point:		
Number of crew and passengers aboard: <ul style="list-style-type: none"> • Number of crew killed • seriously injured • Number of POB killed/ seriously injured: • Others killed and seriously injured: 		
Description of the occurrence and extent of damage:		

Type of investigation to be under taken:	
Physical characteristics of the sight:	
Originating authority: Investigator in charge (IIC): Contact details:	
Presence & description of dangerous goods:	

Based on the provisions of ICAO annex 13 and rules & standards of the MOT, AIB welcomes the participation of states with an interest in the investigation from the aircraft manufacturer and the aircraft operator. If you have desire to participate and support, please contact MOT/AIB office.

Operator Responsibilities

An operator shall insure that the Aircraft Accident Investigation is informed and notified by the quickest means available of any accident or serious incident.

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, cargo, and mail aboard the aircraft and all records, including all recording data of flight, maintenance, and voice recorders, pertaining to the operation and maintenance of the aircraft and of the crew until the AIB takes custody thereof or a release is granted.

The operator of an aircraft involved in an accident shall retain all records, reports, internal /documents, and memoranda dealing with the accident or series incident, until authorized by the AIB to the contrary.

The operator of any Ethiopian registry aircraft or any foreign aircraft shall immediately, and by the most expeditious means available, notify the AIB.

The operator of any civil aircraft or any foreign aircraft shall file a report in the form and manner prescribed after an accident, or if an overdue aircraft is still missing.

Each crewmember, if physically able at the time the report is submitted, shall attach a statement setting forth the facts, conditions, and circumstances relating to the accident as they appear to him. If the crewmember is incapacitated, he shall submit the statement as soon as he is physically able.

The operator of an aircraft shall file any report with the AIB or the air traffic service unit concerned.

APPENDIX - C

Detailed guidance material on completing each section of the final report.

1. Factual Information

1.1 History of the flight:

A brief narrative giving the following information:

Flight No., type of operation, last point of departure, time of departure (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 (UTC), whether day or night

1.2 Injuries to persons:

Completion of the following (in numbers) Injuries

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.

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 crewmembers including: age, validity of licenses, ratings, mandatory checks, flying experience (total and on type) and relevant information on duty time.

b) Brief statement of qualification and experience of other crewmembers.

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 weight and center 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 of navigation:

Pertinent information on navigational aids available, including landing aids such as PAR, ILS, Visual Ground Aids etc. and their effectiveness at the time.

1.9 Communication:

Pertinent information on aero mobile and aeronautical fixed service communications and their effectiveness

1.10 Aerodrome information:

Pertinent information associated with the aerodrome, its facilities and condition, or with the takeoff 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 there from

1.12 Wreckage and impact information:

General information on the site of the accident and the distribution pattern of the wreckage; detected material failure 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 breakup of the aircraft prior to impact. Diagrams, charts and photographs may be included in this section or attached in 5 – Appendices of the Summary.

1.13 Medical and pathological information:

Brief description of the results of the investigation undertaken and pertinent data available there from (Note: Medical information related to flight crew licenses should be included in Personnel information.

1.14 Fire:

If fire occurred, information on the nature of the occurrence, and of the firefighting 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 above.

1.19 Useful or effective investigation techniques:

When new investigation techniques have been used during the investigation, briefly indicate the reason for using the new techniques and refer here to the main features as well as describing the results under the appropriate sub-heading 1.1 to 1.18.

2. Analysis

Analysis as appropriate, only the information documented in 1. Factual information and which is relevant to the determination of conclusions and cause (s).

3. Conclusions

Reproduce in its entirety the text of the conclusions and Cause(s) of the final report on the investigation, or summarize.

4. Safety Recommendations

As appropriate, briefly state any recommendations made for the purpose of accident prevention and any resultant corrective action.

5. Appendices

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

APPENDIX D

Aircraft Accident Investigation Bureau (AIB)

Ministry of Transport

Head Accident Investigation

Secretary

Engineering Investigation

Operational Investigation

ATTACHMENT A
GRANTING OF OBSERVER/PARTICIPANT STATUS

Our file reference _____

_____ _____ _____
Day Month Year

Dear _____

Occurrences file No: _____ Date _____
Time _____

Aircraft Involved _____

Occurrence Location _____

The Aircraft Accident and Incident Investigation Authority of Ethiopia is empowered to investigate aircraft accidents and incidents in the state. The objective of an Authority investigation is to advance aviation safety by identifying safety deficiencies and making safety recommendations designed to eliminate or reduce such deficiencies.

During the course of an investigation, the Authority may authorize a person to attend as an observer when the person is designated as such by a Minister responsible for a department having a direct interest in the investigation, or as a participant when, in the opinion of the Authority, the person has the expertise to contribute to achieving the Authority's objective.

Rules and Standards, Sections 5.20, and 5.21)

By this letter, you are granted the status of an observer or participant to this occurrence and, subject to any conditions the Authority may impose and under the supervision of an Authority investigator, you may:

- a) attend at the occurrence site(s);
- b) examine the aircraft, its component parts and contents involved in the occurrence;
- c) unless otherwise prohibited by law, examine relevant information as defined in Section 3 of the Rules and standards, and other information pertaining to:
 - i) the aviation activity during which the occurrence took place;
 - ii) the crew members involved in the occurrence;

iii) the aircraft, its component parts and contents; and

(d) attend laboratory tests or analyses (Rules and Standards, Section 5.24)

Your attendance as an observer/participant is subject to the following conditions:

(a) You shall limit your activities at the occurrence site to those outlined by the Investigator-in-charge;

(b) You shall ensure that your activities do not restrict, endanger, or otherwise interfere with Authority investigators in the performance of their duties;

(c) The sole purpose of this Authority investigation is the advancement of aviation safety. Consequently, any information you gain as a result of your observer status shall only be used for that purpose. Until the investigation report is released to the public, you shall not disclose or otherwise use this information without the expressed consent of the Investigator-in-charge.

(d) To be permitted on the occurrence site, you shall have the appropriate inoculations against disease and biohazards (refer to the national immunization guide, health department rules & standards, or equivalent publications);

(e) To be permitted on the occurrence site, you shall have the appropriate biohazard and occupational safety and health training, and the appropriate safety clothing and equipment, for operating on biohazard, remote, and dangerous sites (refer to the national immunization guide, health department rules & standards, or equivalent publications); and

(f) You shall on request provide proof of compliance with the training and inoculation requirements in (d) and (e) above.

The rights and privileges granted to an observer/participant shall not include attendance at an interview of a witness during an investigation. (Rules and Standards, Section 5.23)

Failure to comply with any of the above responsibilities could result in the immediate revocation of your observer/participant status. (Rules and Standards Section 5.16)

You should also understand that the privileges of an observer/participant will be exercised at your own risk

Please sign and return this letter to the Investigator-in-charge, indicating your understanding and acceptance of the above-mentioned conditions and responsibilities.

Acceptance of Observer/Participant Status

I understand and accept the conditions outlined above with respect to my attendance as an observer/participant at the subject investigation.

I also understand that the privileges of an observer/participant will be exercised at my own risk, and I hereby agree to indemnify and save harmless the Aircraft Accident and Incident Investigation Authority for any damage or injuries I may suffer as a result of my attending the investigation as an observer/participant.

Signed: _____ Date: _____