



**CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH**



**COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH**

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| PART     | SUB | DATE APPROVED | RESPONSIBLE AUTHORITY                                    | SIGNATURE      |
|----------|-----|---------------|--|----------------|
| Preamble | PRM | 30-06-2016    | <b>A V M Ehsanul Gani Choudhury,</b><br>Chairman, CAAB   |                |
| Part-A   | ORD | 1984          | Government of Bangladesh                                 | Not applicable |
| Part-B   | CAR | 30-09-1984    | <b>A V M Ehsanul Gani Choudhury,</b><br>Chairman, CAAB   |                |
| Part-C   | ANO | 30-06-2016    | <b>A V M Ehsanul Gani Choudhury,</b><br>Chairman, CAAB   |                |
| Part-D   | POL | 30-06-2016    | <b>Capt Salahuddin M Rahmatullah,</b><br>Head of AAIG-BD |                |
| Part-E   | TRG | 30-06-2016    | <b>Capt Salahuddin M Rahmatullah,</b><br>Head of AAIG-BD |                |
| Part-F   | EGM | 30-06-2016    | <b>Capt Salahuddin M Rahmatullah,</b><br>Head of AAIG-BD |                |
| Part-G   | IHB | 30-06-2016    | <b>Capt Salahuddin M Rahmatullah,</b><br>Head of AAIG-BD |                |
| Part-H   | EVD | 30-06-2016    | <b>Capt Salahuddin M Rahmatullah,</b><br>Head of AAIG-BD |                |

**AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)**



PREAMBLE  
AIRCRAFT ACCIDENT INVESTIGATION



CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

PREAMBLE

AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



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## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



### PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION

#### FOREWORD

1. Pursuant to Section 7 (1) of Bangladesh Ordinance 1960, Part XIII (Rule 234-255) and Rule 3 (2) (a) of Civil Aviation Rule 1984, I have formed an Aircraft Accident Investigation Group of Bangladesh through an OFFICE ORDER-1/AAIG-BD by designating Seven 'Post Holders' headed by Capt Salahuddin M Rahmatullah, Senior Consultant & Chief Flight Operations Inspector, CAAB.
2. I have advised the AAIG-BD to ensure conduct of Aircraft Accident Investigation independently in compliance with Annex 13 to the Chicago Convention of International Civil Aviation Organization (ICAO) following any Serious Incident and/or Accident of aircraft that may occur in the territory of Bangladesh involving any Bangladeshi and/or Foreign registered Aircraft or outside Bangladesh of any Bangladeshi Registered Aircraft.
3. The AAIG-BD shall exercise the authority to define the composition of an 'Accident Investigation Team' (AAIT) to conduct such investigation independently ensuring that the accident and incident investigation is independent from CAAB i.e. it shall not receive nor seek instructions regarding the conduct of its investigations from the Civil Aviation Administration of Bangladesh. However, the AAIG-BD will provide the Draft Investigation Reports as well as the Safety Recommendations associated with the Aircraft Accident Investigation to the undersigned as a part of requirement established by ICAO in Annex-13 for Administrative requirements of the CAAB and necessary implementation of the safety Recommendations.
4. I advise all relevant personnel to adhere to the instructions outlined in this Compendium on Aircraft Accident Investigation in Bangladesh while performing official functions as AAIG-BD panel as well as conducting Aircraft Accident Investigation following any occurrence of Incident, Serious Incident and/or Accident of Aircraft in the territory of Bangladesh and/or as specified in Para 2 above.
5. The Compendium on Aircraft Accident Investigation in Bangladesh has been issued to satisfy the 'Public Interest'. Amendments to the Compendium except the Primary Aviation Legislation such as the 'Civil Aviation Ordinance 1960', as outlined in Part-A, the Specific Operating Regulations such as the Civil Aviation Rules 1984 (CAR '84), as outlined in Part-B and the Air Navigation Orders (ANOs), as outlined in Part-C, shall be performed by the AAIG-BD.
6. The Compendium on Aircraft Accident Investigation in Bangladesh is hereby accepted.

Air Vice Marshal Ehsanul Gani Choudhury, GUP, ndu, psc  
Chairman  
Civil Aviation Authority, Bangladesh  
30 June 2016



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## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



### PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION

#### FOREWORD

1. Pursuant to Section 7 (1) of Bangladesh Ordinance 1960, Part XIII (Rule 234-255) and Rule 3 (2) (a) of Civil Aviation Rule 1984, Chairman CAAB has designated an Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) through an OFFICE ORDER-1/AAIG-BD, Dated 22 June 2016.
2. The AAIG-BD ensures to conduct an Aircraft Accident Investigation independently in compliance with the requirements of ICAO Annex 13.
3. The AAIG-BD will define the composition of an 'Accident Investigation Team' (AAIT) to conduct such investigation independently ensuring that the accident and/or incident investigation is independent from any other organization in Bangladesh.
4. This Compendium on Aircraft Accident Investigation in Bangladesh has been developed by the AAIG-BD to satisfy the public interest, compiled with the contents in reference not limited to the Preamble but to the Primary Aviation Legislation such as the 'Civil Aviation Ordinance 1960', as outlined in Part-A, the Specific Operating Regulations such as the Civil Aviation Rules 1984 (CAR '84), as outlined in Part-B and the Air Navigation Orders (ANOs), as outlined in Part-C, the Policy and Guidance as in Part-D, the Training Guidance as in Part-E, the Expanded Guidance as in Part-F and the AAIT Handbook as in Part-G.
5. The 'Civil Aviation Ordinance 1960', as outlined in Part-A remains approved by the National Parliament of the Peoples' Republic of Bangladesh, the Civil Aviation Rules 1984 (CAR '84) as outlined in Part-B stood approved and published through Official Gazette of the Government of Bangladesh and the Air Navigation Orders (ANOs), as outlined in Part-C has been duly approved by the Chairman CAAB on 30 June 2016. The remaining parts such as, the Policy and Guidance as in Part-D, the Training Guidance as in Part-E, the Expanded Guidance as in Part-F and the AAIT Handbook as in Part-G have been compiled by the AAIG-BD in conformity with ICAO Annex 13 and various DOCs and Manuals of ICAO.
6. The Head of AAIG-BD ensures to keep this Compendium up-dated and current on regular basis to keep up with the requirements of ICAO and Bangladesh in the area of AIG.
7. All personnel associated with Aircraft Accident Investigations are requested follow the Instructions and Guidance outlined in this Compendium for public interest.
8. I welcome any suggestion for improvement of the Compendium. Please feel free to communicate to the undersigned any time convenient to you.

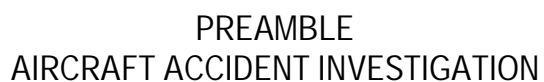
Capt Salahuddin M Rahmatullah  
Head of AAIG-BD  
30 June 2016



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## AMENDMENTS

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## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



### PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION

CAAB/CS/32/AAIG-BD/01/MASTER/

22 June 2016

#### OFFICE ORDER 01/AAIG-BD

#### SUB: DELEGATION OF AUTHORITY TO AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH (AAIG-BD)

Pursuant to Section 7 (1) of Bangladesh Ordinance 1960, Part XIII (Rule 234-255) and Rule 3 (2) (a) of Civil Aviation Rule 1984, I, the Chairman Civil Aviation Authority, Bangladesh have formed an Aircraft Accident Investigation Group of Bangladesh, to be abbreviated as AAIG-BD, that comprises seven 'Post Holders' headed by Capt Salahuddin M Rahmatullah, Senior Consultant & Chief Flight Operations Inspector, CAAB.

- I have delegated authority to the Head of the AAIG-BD to ensure conduct of investigation independently in compliance with Annex 13 to the Chicago Convention of International Civil Aviation Organization (ICAO) following any Serious Incident and/or Accident of aircraft that may occur in the territory of Bangladesh involving any Bangladeshi and/or Foreign registered Aircraft or outside Bangladesh of any Bangladeshi Registered Aircraft. Details of the 'Post Holders' of the AAIG-BD are:

| SN                | NAME OF POST                  | NAME & DESIGNATION  | E-MAIL & CELL NUMBER                                       |
|-------------------|-------------------------------|---|--|
| 1.                | Head of AAIG-BD               | Capt Salahuddin M Rahmatullah<br>Senior Consultant & CFI  | Head.AAIG@caab.gov.bd<br>+8801708167318; +8801715027508    |
| 2.                | Deputy Head of<br>AAIG-BD     | Mr Mohammed Ali Reza Khan<br>Senior Consultant ANS & AGA. | DyHead.AAIG@caab.gov.bd<br>+8801708167319; +88-01711594120 |
| 3.                | Member AGA<br>AAIG-BD         | Mr Md Ayub Khan,<br>Assistant Director                    | MemAGA.AAIG@caab.gov.bd<br>+8801718152577                  |
| 4.                | Member AIR<br>AAIG-BD         | Mr Mohammad Shafiul Azam<br>Airworthiness Inspector       | MemAIR.AAIG@caab.gov.bd<br>+88-01819154744                 |
| 5.                | Member LAW<br>AAIG-BD         | Barrister Rajin Ahmed,<br>Legal Consultant & Attorney     | MemLAW.AAIG@caab.gov.bd<br>+88-01730714641                 |
| 6.                | Member Secretary-1<br>AAIG-BD | Mr Ananda Mandal<br>Inspector of Aircraft                 | MemSecy-1.AAIG@caab.gov.bd<br>+88-01738384279              |
| 7.                | Member Secretary-2<br>AAIG-BD | Mr Nirjhar Deb Nath<br>Inspector of Aircraft              | MemSecy-2.AAIG@caab.gov.bd<br>+88-01717876086              |
| Duty Officer (DO) |                               | As Rostered   | DO.AAIG@caab.gov.bd<br>+8801708167320                      |

- The Head of AAIG-BD shall exercise his authority to define the composition of an 'Accident Investigation Team' (AAIT), comprising of either from the AAIG-BD panel, partly or wholly, and/or from a 'Pool of suitable Investigators' from various disciplines, that should stand largely variable, to conduct such investigation.



## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



4. Accordingly, the Head of AAIG-BD will sign 'Memorandum' depicting the 'Terms of Reference' and the 'Conduct' of Investigation. He will issue and circulate 'Notifications', Circulars, Orders, Advices and any similar instruction related to Aircraft Accident Investigation only.
5. The 'Accident Investigation Team', thus formed, shall follow the instructions outlined in the 'Memorandum' while remaining well connected with the AAIG-BD during the conduct of the investigation.
6. All Air Operators, Air Service Providers any informer, as the case may be, are advised to contact and correspond with the AAIG-BD at the earliest possible means and during the process of Investigation following any occurrence of Incident, Serious Incident and/or Accident of Aircraft in the territory of Bangladesh and/or as specified in Para 2 above.
7. In case of absence of the Head of AAIG-BD, the Deputy Head of AAIG-BD will be empowered to perform all the responsibilities as Head of AAIG-BD.
8. This 'OFFICE ORDER, 01/AAIG-BD' is hereby issued on 'Public Interest' for information and necessary adherence by all concerned with immediate effect.

(ORIGINAL SIGNED)

Air Vice Marshal Ehsanul Gani Choudhury, GUP, ndu, psc  
Chairman  
Civil Aviation Authority, Bangladesh

❖ Copy for information, dissemination to all associated personnel and for necessary action (Internal):

1. All Members (Ops & Plan, Finance, Admin), CAAB
2. Chief Engineer, CAAB
3. All Directors, CAAB
4. All Airport Managers & Service Providers, CAAB
5. All Officials of the Directorate of FSR, CAAB
6. All Officials of the AAIG-BD Panel, CAAB
7. P.S to Chairman, CAAB

❖ Copy for information, dissemination to all associated personnel and for any necessary action (External):

1. All CEOs/MDs/Country Managers/Station Managers of all Air Operators operating in Bangladesh;
2. Heads of Air Transport Service Providers in Bangladesh;
3. P.S to Secretary, Ministry of Civil Aviation and Tourism, Govt. of the Peoples' Republic of Bangladesh;
4. P.S to Secretary, Ministry of Home Affairs, Govt. of the Peoples' Republic of Bangladesh;
5. P.S to Secretary, Ministry of Disaster Management and Relief, Govt. of the Peoples' Republic of Bangladesh;
6. P.S to Secretary, Ministry of Information, Govt. of the Peoples' Republic of Bangladesh;
7. P.S to the Chief/DG of Bangladesh Army, Navy, Air Force, BGB and RAB.





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AIRCRAFT ACCIDENT INVESTIGATION



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AIRCRAFT ACCIDENT INVESTIGATION

LIST OF DISTRIBUTION OF COMPENDIUM

| SL | DESIGNATION OF THE RECIPIENT                    | CONTROL NO/ ISSUE/REVISION |
|----|---|----------------------------|
| 01 | Secretary, MOCAT (01 Hard Copy)                 | 001/01/00                  |
| 02 | Chairman, CAAB (01 Hard Copy)                   | 002/01/00                  |
| 03 | Member (Ops & Planning) - (01 Hard Copy)        | 003/01/00                  |
| 04 | Director FSR (01 Hard Copy)                     | 004/01/00                  |
| 05 | Head of AAIG-BD (01 Hard Copy)                  | 005/01/00                  |
| 06 | Do of AAIG-BD (Master Hard Copy)                | 006/01/00                  |
| 07 | Others of AAIG-BD (05 Hard Copies)              | 007-11/01/00               |
| 08 | Each Oversight Section of CAAB (08 Soft Copies) | 012-19/01/00               |
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APPROVED MONOGRAM OF AAIG-BD

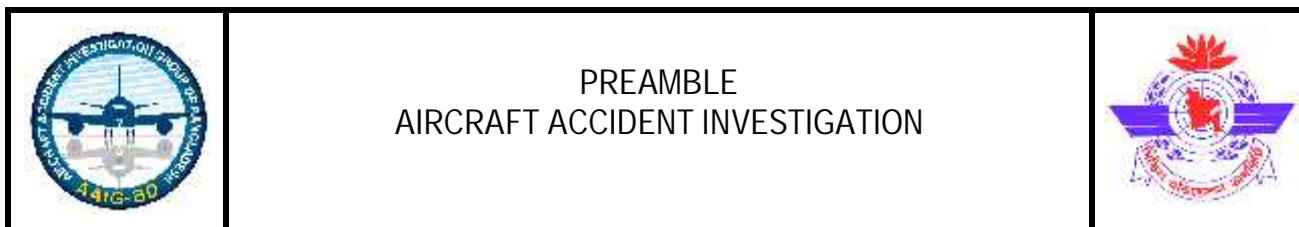




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AIRCRAFT ACCIDENT INVESTIGATION

LIST OF CONTACTS OF AAIG-BD PANEL

| SN | NAME OF POST                  | NAME & DESIGNATION  | E-MAIL & CELL NUMBER                                       |
|----|-------------------------------|---|--|
| 1. | Head of AAIG-BD               | Capt Salahuddin M Rahmatullah<br>Senior Consultant & CFOI | Head.AAIG@caab.gov.bd<br>+8801708167318; +8801715027508    |
| 2. | Deputy Head of<br>AAIG-BD     | Mr Mohammed Ali Reza Khan<br>Senior Consultant ANS & AGA. | DyHead.AAIG@caab.gov.bd<br>+8801708167319; +88-01711594120 |
| 3. | Member AGA<br>AAIG-BD         | Mr Md Ayub Khan,<br>Assistant Director                    | MemAGA.AAIG@caab.gov.bd<br>+8801718152577                  |
| 4. | Member AIR<br>AAIG-BD         | Mr Mohammad Shafiul Azam<br>Airworthiness Inspector       | MemAIR.AAIG@caab.gov.bd<br>+88-01819154744                 |
| 5. | Member LAW<br>AAIG-BD         | Barrister Rajin Ahmed,<br>Legal Consultant & Attorney     | MemLAW.AAIG@caab.gov.bd<br>+88-01730714641                 |
| 6. | Member Secretary-1<br>AAIG-BD | Mr Ananda Mandal<br>Inspector of Aircraft                 | MemSecy1.AAIG@caab.gov.bd<br>+88-01738384279               |
| 7. | Member Secretary-2<br>AAIG-BD | Mr Nirjhar Deb Nath<br>Inspector of Aircraft              | MemSecy2.AAIG@caab.gov.bd<br>+88-01717876086               |
|    | Duty Officer (DO)             | As Rostered   | DO.AAIG@caab.gov.bd<br>+8801708167320                      |





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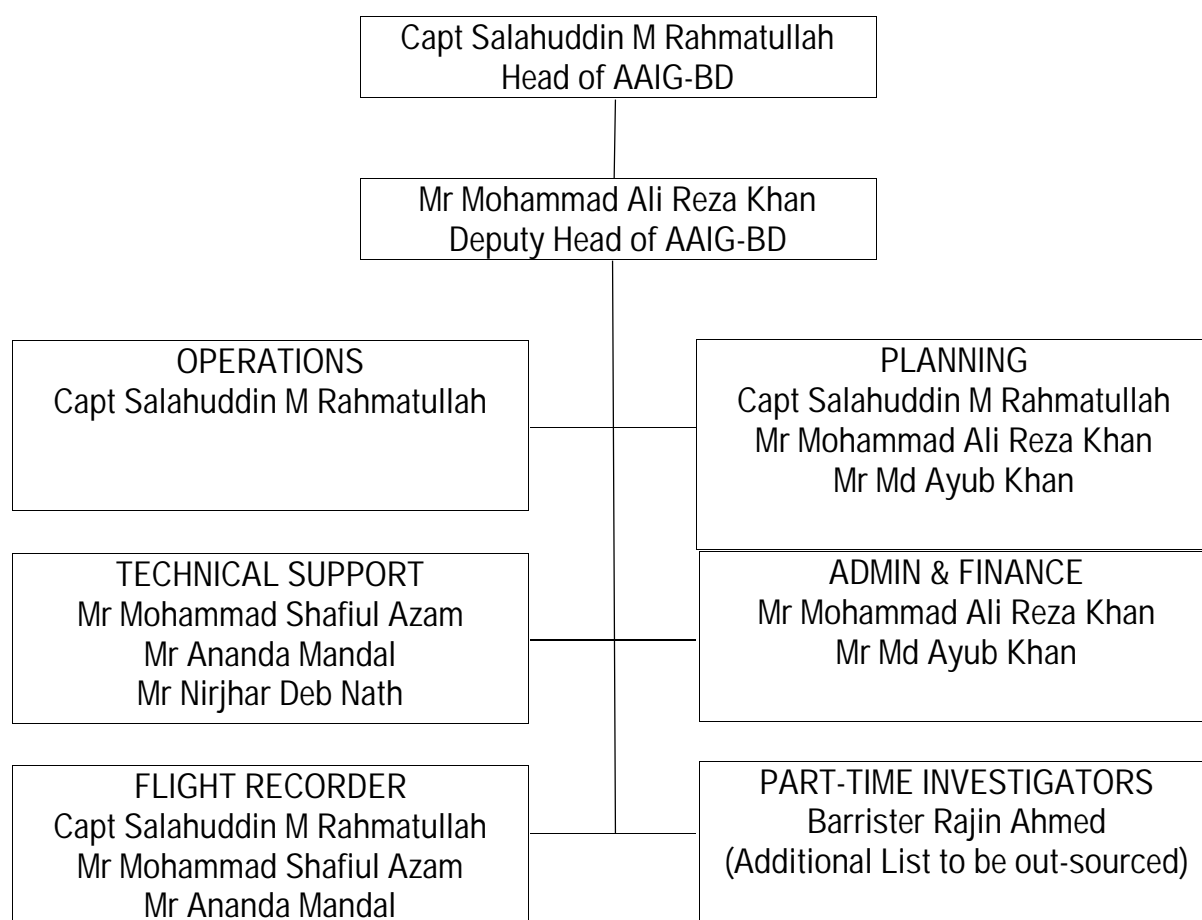


## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



### PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION

#### DEFINED RESPONSIBILITIES OF POST HOLDERS OF AAIG-BD AS PER THE ORGANOGRAM



Note: The 'Job-aids' for the AAIG-BD Investigators is in File CAAB/CS/32/AAIG-BD/01/MASTER and in Part-D & F of this Compendium.



## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



### PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION

#### LIST OF CONTACTS (NATIONAL)

The AAIG-BD will outline the List of Contacts (National) in a Separate Folder and Publish in CAAB Website [www.caab.gov.bd](http://www.caab.gov.bd) in the Dedicated Menu, 'ACCIDENT INVESTIGATION'.

#### LIST OF CONTACTS (INTERNATIONAL)

The AAIG-BD will outline the List of Contacts (International) in a Separate Folder and Publish in CAAB Website [www.caab.gov.bd](http://www.caab.gov.bd) in the Dedicated Menu, 'ACCIDENT INVESTIGATION'.

END



PART-A  
CIVIL AVIATION ORDINANCE 1960  
(PRIMARY AVIATION LEGISLATION )



CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

PART-A  
CIVIL AVIATION ORDINANCE 1960

AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



PART-A  
CIVIL AVIATION ORDINANCE 1960  
(PRIMARY AVIATION LEGISLATION )



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PART-A  
CIVIL AVIATION ORDINANCE 1960  
(PRIMARY AVIATION LEGISLATION)



PART-A  
CIVIL AVIATION ORDINANCE 1960

1. STATE IN REFERENCE

Government of the Peoples' Republic of Bangladesh.

2. PRIMARY AVIATION LEGISLATION

Civil Aviation Ordinance 1960.

3. POWER TO MAKE RULES FOR INVESTIGATION OF AIRCRAFT ACCIDENTS

Civil Aviation Ordinance 1960 specifies in Section 7, 'The power to make Rules for investigation of aircraft accidents' as below:

- a) Section 7. (1) of the Civil Aviation Ordinance 1960 states – "The Government may, by notification in the Official Gazette, make Rules providing for the investigation of any accident arising out of or in the course of navigation",
  1. In or over Bangladesh, of any aircraft; or
  2. Anywhere, of aircraft registered in Bangladesh.

4. GAZETTE NOTIFICATION AND AMENDMENT HISTORY

- a) Pursuant to Section 7 of the Civil Aviation Ordinance 1960, the Government of the Peoples' Republic of Bangladesh published an Official Gazette vide reference S.R.O-398-L/84, dated 30 September 1984, empowering the Chairman CAAB to conduct Investigation of Aircraft Accident. This has been documented in Part XIII of Civil Aviation Rules 1984 (CAR '84).
- b) The Heading of Part XIII in in CAR '84 is 'Aircraft Accident Inquiry'. The Part addresses all the relevant issues related to the Investigation of Aircraft Accident. Part XIII encompasses a total of 22 Rules, starting from Rule 234 ending to Rule 255 on accident investigation. All the 22 Rules have been REPRODUCED in Part-B of the Compendium without any change what so ever.
- c) The latest amendment for Part-XIII of CAR '84 was published through an Official Gazette vide reference S.R.O-004/2003, Dated 05 January 2003. The amendments were applicable to Rule 234 and 235, Part-XIII of CAR '84. Please refer to Part-H (Evidences) of the Compendium where the photocopy of the Gazette has been shown.

END



PART-A  
CIVIL AVIATION ORDINANCE 1960  
(PRIMARY AVIATION LEGISLATION )



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PART-B  
CIVIL AVIATION RULES 1984  
ON AIRCRAFT ACCIDENT ENQUIRY  
(SPECIFIC OPERATING REGULATIONS )



CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

PART-B  
CIVIL AVIATION RULES 1984



AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



PART-B  
CIVIL AVIATION RULES 1984  
ON AIRCRAFT ACCIDENT ENQUIRY  
(SPECIFIC OPERATING REGULATIONS )



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|  | <p>PART-B<br/>CIVIL AVIATION RULES 1984<br/>ON AIRCRAFT ACCIDENT ENQUIRY<br/>(SPECIFIC OPERATING REGULATIONS )</p> |  |
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## PART-B

### CIVIL AVIATION RULES 1984 (PART XIII - AIRCRAFT ACCIDENT ENQUIRY)

#### 1. GAZETTE NOTIFICATION AND AMENDMENT HISTORY

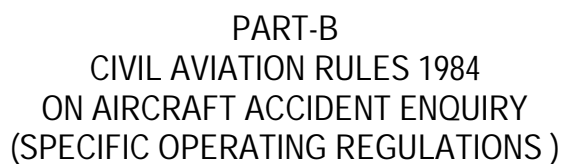
- a) Pursuant to Section 7 of the Civil Aviation Ordinance 1960, the Government of the Peoples' Republic of Bangladesh published an Official Gazette vide reference S.R.O-398-L/84, dated 30 September 1984, empowering the Chairman CAAB to conduct Investigation of Aircraft Accident. This has been documented in Part XIII of Civil Aviation Rules 1984 (CAR '84).
- b) The Heading of Part XIII in CAR '84 is 'Aircraft Accident Enquiry'. The Part addresses all the relevant issues related to the Investigation of Aircraft Accident. Part XIII encompasses total 22 Rules, starting from Rule 234 ending to Rule 255 on accident investigation. All the 22 Rules have been REPRODUCED in Part-B of this Compendium without any change what so ever.
- c) The latest amendment for Part-XIII of CAR '84 was published through an Official Gazette vide reference S.R.O-004/2003, Dated 05 January 2003. The amendments were applicable to Rule 234 and 235, Part-XIII of CAR '84. Please refer to Part-H (Evidences) of the Compendium where the photocopy of the Gazette has been shown.



PART-B  
CIVIL AVIATION RULES 1984  
ON AIRCRAFT ACCIDENT ENQUIRY  
(SPECIFIC OPERATING REGULATIONS )



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PART-B  
CIVIL AVIATION RULES 1984  
ON AIRCRAFT ACCIDENT ENQUIRY  
(SPECIFIC OPERATING REGULATIONS )



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|  | <p>PART-B<br/>CIVIL AVIATION RULES 1984<br/>ON AIRCRAFT ACCIDENT ENQUIRY<br/>(SPECIFIC OPERATING REGULATIONS )</p> |  |
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PART-B  
CIVIL AVIATION RULES 1984  
ON AIRCRAFT ACCIDENT ENQUIRY  
(SPECIFIC OPERATING REGULATIONS )



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|  | <p>PART-B</p> <p>CIVIL AVIATION RULES 1984</p> <p>ON AIRCRAFT ACCIDENT ENQUIRY</p> <p>(SPECIFIC OPERATING REGULATIONS )</p> |  |
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## PART-B

### CIVIL AVIATION RULES 1984 (PART XIII - AIRCRAFT ACCIDENT ENQUIRY)

Civil Aviation Rules 1984, published through Official Gazette, specifies from Rule 234 to 255 on Chairman CAAB's Regulatory obligations on the Investigation of Aircraft Accidents. The 'Definition' portion (Rule 234) of this Compendium has been updated as on 30 June 2016. The contents of the rest of the Rules have been 'REPRODUCED' below from the existing portion of the Part XIII that provides Rules (From 235 to 255) related to Aircraft Accident Enquiry, ratified pursuant to ICAO Annex 13.

#### 234. DEFINITIONS

- (1) In this PART, unless there is anything repugnant in the subject or context:
  - (a) Accident means an occurrence associated with operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:
    - (i) a person is fatally or seriously injured as a result of being in the aircraft or direct contact with any part of the aircraft, including parts which have become detached from the aircraft or direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons or the injuries are to stowaways hiding outside the areas normally available to the passengers & crews.
    - (ii) 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 components except for engine failure or damage, when the damage is limited to the engine, it's cowling or accessories; or for damage limited to propellers, wingtips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin.
    - (iii) The aircraft is missing or is completely inaccessible.
  - (b) Accredited representative means 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.
  - (c) Adviser means 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.



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- (d) Causes means actions, omissions, events, conditions or combinations thereof, which led to the accident or incident.
- (e) Flight recorder means any type of recorder installed in the aircraft for the purpose of complementing accident/incident investigation.
- (f) incident means an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation of aircraft, or in relation to an aircraft, means an occurrence taking place either on ground or in flight in which-
  - (i) The aircraft suffers damage or a person suffers injury in circumstances other than those specified in the definition of accident;
  - (ii) The aircraft has a forced landing;
  - (iii) The aircraft is compelled to land at the aerodrome of departure without completing the intended flight;
  - (iv) The aircraft lands in an un-airworthy condition;
  - (v) The aircraft lands owing to conditions which make continuance of flight inadvisable;
  - (vi) The position of the aircraft become unknown for any period; or
  - (vii) The safety of the aircraft or its occupants or of any other person or property is jeopardized;
- (g) Investigation means 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, when appropriate, the making of safety recommendation.
- (h) investigator-in-charge means a person charged, on the basis of his/her qualifications, with the responsibilities for the organization, conduct and control of an investigation.
- (i) Maximum mass means maximum certificated take-off mass.
- (j) Operator means a person, organization or enterprises engaged in or offering to engage in an aircraft operation.
- (k) Preliminary report means the communication used for the prompt dissemination of data obtained during the early states of the investigation.



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- (l) Safety recommendations means a proposal of the accident investigation authority of the State conducting the investigation, based on information derived from the investigation, made with the intention of preventing accidents or incidents.
- (m) Serious incident means an incident involving circumstances indicating that an accident nearly occurred.
- (n) Serious injury means an injury which is sustained by a person in an accident and which:
  - (i) Requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
  - (ii) Results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
  - (iii) Involves lacerations which cause severe hemorrhage, nerve, muscle or tendon damage; or
  - (iv) Involves injury to any internal organ; or
  - (v) Involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or involves verified exposure to infectious substances or injurious radiation.
- (o) State of occurrence means the State in the territory of which an accident or incident occurs.
- (p) State of the operator means 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.
- (q) Substantial Damage means damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft which would normally require major repair or replacement of the affected component.
- (2) Objective of the investigation: the sole objective of the investigation of an accident or serious incident or incident shall be the prevention of accidents, serious incidents and incidents. It is not the purpose of this activity to apportion blame or liability.
- (3) Applicability: unless otherwise stated, the specifications in this rule apply to activities following accidents, serious incidents and incidents wherever they occur and specifications shall apply only when an aircraft is leased, chartered or interchanged and if CAAB discharges, in part, or in whole the functions and obligation of the State of registry."

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## 235. NOTIFICATION

Accident or serious incident in the territory of a contracting State to aircraft of other contracting State responsibilities of the State of occurrence.

- (1) When an accident, serious incident or incident occurs to:
  - (a) Any Bangladesh registered aircraft, or
  - (b) Any aircraft in Bangladesh territory, the owner, the operator or hirer (if any) shall each be responsible for ensuring that a notification is furnished by the most suitable and quickest means immediately after the accident, serious incidents or incident followed by a written report to the Chairman.
- (2) Any pilot observing any aircraft accident, serious incidents or incident in Bangladesh shall report the same in details to the Chairman.
- (3) The Chairman shall forward a notification of an accident, serious incident or incident with minimum of delay by the most suitable and quickest means available to the:
  - (i) State of registry in case of foreign aircraft;
  - (ii) State of operator in case of foreign operator'
  - (iii) State of design;
  - (iv) State of manufacture;
  - (v) International Civil Aviation Organization, when the aircraft involved is of a maximum mass of over 2250 kg.
- (4) When Bangladesh is not the State of occurrence of an accident or serious incident but is the State of registry or the State of operator of the aircraft, the Chairman shall forward notification of the accident or serious incident occurring outside the territory of Bangladesh and/or in a non-contracting State or outside the territory of any contracting State or where the State of occurrence is not aware of the accident or serious incident, to;
  - (a) All the States involved
  - (b) ICAO.



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- (5) The Chairman shall establish a voluntary occurrence reporting system on potential safety deficiencies and ensure that the voluntary occurrence reporting system is non-punitive and protects the sources of information."

## 236. FORMAT AND CONTENTS OF NOTIFICATION

- (1) The notification shall be in plain language and contain as much of the following information as it is readily available, but its dispatch shall not be delayed due to the lack of complete information:
- (a) For accidents the identifying abbreviation ACCID, for serious incident, "INCID"
  - (b) Manufacturer, model and nationality and registration marks and serial number of the aircraft;
  - (c) Name of owner, operator and hirer (if any) of the aircraft
  - (d) Name of the pilot-in-command and nationality
  - (e) Date and time (local time or UTC) of the accident or serious incident
  - (f) Last point of departure and point or intending landing of the aircraft;
  - (g) Position of the aircraft with reference to some easily defined geographical point and latitude and longitude;
  - (h) Number of passengers and crews, 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) Physical characteristics of the accident or serious incident area, as well as an indication of accesses difficulties or special requirements to reach the site;
    - (i) Presence and description of dangerous goods on board the aircraft (if any) and
    - (ii) If all the particulars specified in sub-rule (1) are not immediately available, the report shall so state and supplementary reports containing particulars not included in the first report shall be furnished at the earliest possible time.
    - (iii) As soon as it is possible to do so, the State of occurrence/the Chairman shall dispatch the details omitted from the notification as well as other known relevant information."



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237. RESPONSIBILITY IN CASE OF ACCIDENT OR SERIOUS INCIDENT OF FOREIGN REGISTERED AIRCRAFT IN BANGLADESH.

- (1) If a foreign registered aircraft meets an accident, incident or serious incident in the territory of Bangladesh, the Chairman, shall forward a notification of the accident or serious incident indicating the nature of the investigation or inquiry being conducted with respect to the accident or incident with a minimum of delay and by the most suitable and quickest means available to the:
  - (a) State of registry
  - (b) State of operator (if Bangladesh registered aircraft is operated by another State on wet lease)
  - (c) State of design
  - (d) State of manufacture, and
  - (e) International Civil Aviation Organization, when the aircraft involved is of a maximum mass of over 2250 kg.

238. RESPONSIBILITIES FOR PROTECTION OF EVIDENCE, CUSTODY AND REMOVAL OF AIRCRAFT.

- (1) When an accident or serious incident or incident in the territory of Bangladesh to any aircraft either registered in Bangladesh or any other State, the Chairman being the authority of State of occurrence shall take all responsible measures to protect the evidence and to maintain safe custody of the aircraft and its contents for such a period as may be necessary for the purpose of an investigation.
- (2) Safe custody shall include protection against further damage, access by unauthorized persons, pilfering and deterioration and shall be deemed to be in the custody of the Chairman. The aircraft shall not be removed or otherwise interfered without the permission of the Chairman.
- (3) if 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, the Chairman being the authority of State of occurrence shall take all necessary steps to comply with such request, so far this is reasonably practicable and compatible with the proper conduct of investigation, provided that the aircraft may be moved to the extent necessary to extricate persons, animal, mails and valuables, to prevent destruction by fire or other causes, or to eliminate other dangers or obstruction





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to air navigation, to other transport, work to the public, and provided that it does not result in undue delay in returning the aircraft to service where this is practicable.

- (4) The removal of aircraft and its contents to a place of safety when the aircraft is wrecked in water.
- (5) The removal of goods or baggage under the supervision of a police officer, but in the care of an aircraft, which has come from outside Bangladesh, the goods or baggage shall not be removed from the vicinity of an aircraft except on a clearance by or with the consent of a custom officer or under the supervision of an officer of Civil Aviation Authority nominated by the Chairman
- (6) The removal of mails under the supervision of an officer of the police department or an officer of the postal department or an official of the Civil Aviation Authority, nominated by the Chairman.
- (7) The Chairman may authorize any person, so far as is necessary for the purpose or any investigation or inquiry:
  - (a) To take measures for the preservation of the aircraft.
  - (b) To secure and safe keeping of all air traffic services communication recordings and documents associated with the flight.
  - (c) To have access to, examine, remove or otherwise deal with the aircraft; and
  - (d) To make records of photographic or other adequate means of any material evidence which are of transitory nature or can be removed or effaced or lost or destroyed.

239. AIRCRAFT OF FOREIGN STATE TO REMAIN UNDISTURBED ON REQUEST

- (1) Upon receipt of the notification from a state to which rule 237 applies of its intention to send an accredited representative together with a request by that State that the aircraft, its contents and any other evidence shall remain undisturbed pending inspection by the accredited representative, the Chairman shall, subject to the provisions of sub rule (2), take such steps as are reasonably necessary and practicable to comply with the request, including the facilitation of access to the aircraft, contents or evidence.
- (2) If any aircraft, its contents or evidence lies in a restricted or prohibited area including a temporary restricted or prohibited area, the Chairman may refuse access to that area, but shall effect removal of the aircraft, its contents or evidence, as the case may be, to a point outside that area for the purpose of access.

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#### 240. RELEASE OF AIRCRAFT ETC. FROM CUSTODY

When the retention of an aircraft, any parts or the contents thereof is no longer necessary for the purpose of an investigation or an inquiry, the Chairman shall in writing, release from his custody the aircraft, parts or contents, as the case may be, to the owner of the aircraft, or in the case of aircraft other than a Bangladesh aircraft, to the persons duly authorized by the State of registration.

#### 241. INVESTIGATION-APPOINTMENT OF INVESTIGATOR

Responsibility for instituting and conducting investigation to an accident or incident in the territory of Bangladesh:

- (1) If an accident or serious incident occurs to an aircraft in Bangladesh either foreign registered or Bangladesh and in case to an aircraft stated later, the Chairman, being the authority of State of occurrence, shall institute an investigation into the circumstances of the accident and be responsible for the conduct of the investigation. However, in case of foreign registered aircraft, the Chairman may delegate the whole or part of conducting such investigation to another State by mutual agreement and consent. In any event, the Chairman shall use every means to facilitate the investigation.
- (2) When the accident or serious incident has occurred of Bangladesh registered aircraft in the territory of a non-contracting State which does not intend to conduct an investigation in accordance with Annex-13, the Chairman shall institute an investigation in co-operation with the State of occurrence, but failing such co-operation, shall conduct an investigation with such information as it is available.
- (3) Where the location of the accident or serious incident cannot definitely be established, as being the territory of State, the Chairman shall institute and conduct necessary investigation of the accident or serious incident. However, in this case, it may delegate the whole or any part of the investigation to another State by mutual arrangement and consent.
- (4) If an accident occurs in international waters near to Bangladesh, the Chairman shall provide such assistance as possible in respond to requests of the concerned contracting State.
- (5) If accident or serious incident of an aircraft registered in non-contracting State occurs in Bangladesh territory and no State intend to conduct an investigation in accordance with ICAO Annex-13, the Chairman may conduct the investigation in whole or part with the mutual consent and arrangement with the State.



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- (6) The Chairman may appoint an investigator to conduct an investigation into any of the following matters occurring in Bangladesh and where more than one investigator has been appointed, one of the investigator shall be designated as the chief investigator and shall initiate the investigation immediately:
- (a) Accident
  - (b) Serious incident
  - (c) Incident
  - (d) Unlawful interference against aviation.

242. POWERS OF THE INVESTIGATORS

- (1) For the purpose of an investigation, authorized under rule 241, an investigator has the following powers:
- (a) The investigators shall have unhampered access to the wreckage and all relevant materials, including flight records and ATS record and shall have unrestricted control over it to ensure that a detailed examination can be made without delay by authorized personnel participating in the investigation.
  - (b) Summon any person or witness
  - (c) Take evidence on oath or affirmation
  - (d) Require the production of documents or any part, or component or an aircraft relevant to the investigations
  - (e) Require all or any flight crew members of the aircraft involved in the accident or incident to undergo medical examination promptly after the occurrence; by a physician, preferably experienced in accident investigation. These examinations should be expeditious.
  - (f) where an investigator has required the production of a document or a part or component of an aircraft relevant to the investigation, he may retain the document, part or component of the aircraft, as the case may be, for such period as it is necessary for the purpose of the investigation and may take copies of, or take extracts from, the documents so produced or retained.



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- (g) a summon under these rules shall be in writing under the hand of the investigator and shall specify the time and place for taking of evidence and the documents and the part or components of an aircraft (if any) required to be produced.
  - (h) a summon under these rules may be served either personally on the person to be served or by prepaid registered letter addressed to the person at his last known place of abode or business.
- (2) Tasks of the investigators: The investigators appointed by the Chairman shall have independence in the conduct of the investigation and unrestricted authority over its conduct, consistent with the provisions of the Convention. Tasks of the investigators shall include:
  - (a) The gathering, recording and analysis of all available information on that accident or incident
  - (b) If appropriate, the issuance of safety recommendations,
  - (c) if possible, determination of cause,
  - (d) The completion of final report,
  - (e) The scene of the accident shall be visited, the wreckage examined and statements taken from witness
  - (f) Any judicial or administrative proceeding to apportion blame or liabilities shall be separated from any investigation conducted under the provisions of annex-13.
  - (g) Effectiveness shall be made of Flight Recorder in the investigation of an accident or incident. Operator of the aircraft on which accident or incident has occurred shall arrange for read out of the Flight Recorder without delay. In the event that the operator does not have adequate facilities to read out the Flight Recorder, the operator may use the facilities made available to it by other state, giving consideration to the capabilities of the read-out facilities, the timelines of read-out and the location of read-out facilities.
  - (h) The investigators appointed by the Chairman and conducting the investigation into a fatal accident shall arrange for complete autopsy examination of fatally injured flight crews and, subject to the particular circumstances, of fatally injured passengers and cabin attendants, by a pathologist, preferably experienced in an accident investigation. These examinations shall be expeditions and complete.
  - (i) The investigators conducting the investigation shall recognize the need of coordination between the investigator-in-charge/ chief investigator and the judicial authorities. Particular attention shall be given to evidence which requires prompt recording and analyzing for the investigation to be successful, such as



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the examination and identification of victims and read-out of Flight Recorder recordings.

- (j) If in the course of investigation it becomes known or it is suspected that an act of unlawful interference was involved, the investigator in-charge/chief investigator shall have to initiate action to ensure that the aviation security authorities of CAAB concerned are so informed.
- (k) If it appears to the investigator that the investigation may result in framing charge against any person for an offence under these rules or in the cancellation of any license or certificate issued under the rules or of a rating or other endorsement endorsed in a license or certificate issued under these rules the investigators shall give that person or holder of that license or certificate an opportunity of making any statement or given any evidence and calling witness on his behalf.

243. NON-DISCLOSURE OF RECORDS

- (1) The investigators conducting the investigation of an accident or incident shall not make the following records available for purposes other than accident or incident investigation, unless the appropriate authority for the administration of justice in the State determines that their disclosure outweighs the adverse domestic and international impact such action may have on that or any future investigation:
  - (a) All statement taken from persons by the investigation authorities in the course of their investigation.
  - (b) All communication between persons having been involved in the operation of the aircraft.
  - (c) Medical or private information regarding persons involved in the accident or incident.
  - (d) Cockpit voice recordings and transcripts from such recordings.
  - (e) Recordings and transcriptions of recordings from air traffic control units and
  - (f) Opinion expressed in the analysis of information including flight recorder information.
- (2) The records stated in sub-rule (1) of this rule shall be included in the final report or its appendices only when pertinent to the analysis of the accident or incident. Parts of the records not relevant to the analysis shall not be disclosed.

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- (3) Reopening of the investigation: If after the investigation has been closed, new and significant evidence become available, the Chairman shall re-open the investigation.
- (4) Information-accidents and incidents: Any State shall, on request from the State conducting the investigation of an accident or incident, provide that State with all the relevant information available to it.
- (5) Any state, the facilities or services of which have been, or would normally have been, used by an aircraft prior to an accident or incident, and which has information pertinent to the investigation shall provide such information to the State conducting the investigation.
- (6) Responsibilities of the State of register and the State of operator; Flight Recorders: When an aircraft involved in an accident or incident or a serious incident lands in a State other than the State of occurrence, the State of registry or the State of operator shall, on request from the State conducting the investigation, furnish the latter State with the flight recorders records and, if necessary, the associated flight recorders.
- (7) Organization information: The State of registry and the State of 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 aircraft.
- (8) Rights of person who may charged: If it appears to the investigator that the investigation may result in framing a charge against any person for an offence under these or in the cancellation of any license or certificate issued under these rules or of a rating or other endorsed in a license or certificate issued under these rules or of rating or other endorsed in a license or certificate issued under these rules, the investigator shall give that person or the holder of that license or certificate, an opportunity of making any statement or giving any evidence and calling witness on his behalf.

#### 244. WITNESS

- (1) A person summoned as a witness at an investigation shall be guilty of an offence, if he/she
  - (a) Disobeys the summon;
  - (b) Refuses to be sworn or to make an affirmation as a witness;
  - (c) Fails to answer any question which is lawfully required by the investigator to answer or
  - (d) Refuses or fails to produce any document or part or component of an aircraft which he/she is lawfully required to provide.





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- (2) If a person objects to answering a question asked to him/her as a witness at an investigation on the ground that the answer might tend to incriminate him/her or make him/her liable to any penalty and the investigator informs that person of his/her obligation to answer that question, the person shall not refuse to answer the question but the answer given shall not be admissible in evidence in any proceedings against him/her other than proceedings in respect of the falsity of the answer or in respect of the refusal or failure to answer the question.
- (3) A person summoned as a witness shall be paid such fees and traveling expenses as may be determined by the Chairman."

245. REPORT OF THE INVESTIGATOR

- (1) Upon conclusion of an investigation, the investigator shall forward a report in writing to the Chairman including all signed statements and other documents which have come into his possession in course of the investigation.
- (2) The investigation report shall be submitted according to the format outlined in the Convention and promulgated by the Chairman.

246. PUBLICATION OF THE REPORT

- (1) Investigators conducting the investigation into an accident serious incident shall not circulate, publish or give access to a draft report or any part thereof, or any documents obtained during an investigation of an accident or incident without permission of the Chairman, unless such reports or documents have already been published or released.
- (2) In case of a foreign or Bangladesh registered aircraft, the Chairman shall send a copy of the investigation report to the following organizations as may be applicable:
  - (a) State of registry;
  - (b) State of the operator;
  - (c) State of design;
  - (d) State of manufacture;
  - (e) All States involved in the investigation;
  - (f) Any States having suffered fatalities or serious injuries to its citizens;
  - (g) Any State that provided relevant information, significant facilities or experts; and
  - (h) ICAO.
- (3) In the interest of accident prevention, the investigators conducting the investigation of an accident or incident shall submit the final report as soon as possible and practicable.



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- (4) Upon receipt of a report of an investigation under rule-245 the Chairman will forward the report to the Government with his comment/recommendation and may make public whole or any part of the report.
- (5) The Chairman shall ensure that incident data report for investigations into incidents to aircraft of a maximum mass of over 5700 kgs is forwarded to ICAO.
- (6) At any stage of the investigation of an accident or incident, the accident and investigation authority of the State conducting the investigation shall recommend to the appropriate authority, including other states, any preventive action that it considers necessary to be taken promptly to enhance aviation safety.
- (7) Investigators appointed by the Chairman investigating an accident or incident may address when appropriate, any safety recommendation arising out of the investigations to the accident investigation authorities of other States concerned and, when ICAO documents are involved, to ICAO.
- (8) The Chairman shall ensure that, in case of safety recommendations received from other contracting States, the concerned proposing States shall be informed of the prevention action taken or the recommendations under consideration, or reasons of why no action will be taken.
- (9) ADREP Reporting: When aircraft involved in an accident (either Bangladesh registered or foreign registered) is of a mass (maximum) of over 2250 kg, in the territory of Bangladesh, the investigator appointed by the Chairman, shall send preliminary report to the:
  - (a) State of registry;
  - (b) State of the operator;
  - (c) State of design;
  - (d) State of manufacture;
  - (e) All States involved in the investigation;
  - (f) Any States having suffered fatalities or serious injuries to its citizens;
  - (g) Any States that provided relevant information, significant facilities or experts; and
  - (h) ICAO.





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- (10) Accident or aircraft of 2250 kg or less: When an aircraft not covered rule-246 (9) is involved in an accident, in the territory of Bangladesh and when airworthiness or matters considered to be of interest to the other States are involved, Bangladesh conducting the investigation shall forward the preliminary report to the:
- (a) State of registry;
  - (b) State of operator;
  - (c) State of design;
  - (d) State of manufacturer; and
  - (e) Any State that provided relevant information, significant facilities or experts.
- (11) The preliminary report shall be submitted to the appropriate States and to the ICAO in English language.
- (12) The preliminary report shall be sent by facsimile, e-mail or airmail within thirty days of the date of the accident. 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.

## 247. ACCIDENT OF FOREIGN REGISTERED AIRCRAFT IN BANGLADESH

- (1) When an accident occurs in Bangladesh to a foreign registered aircraft:
- (a) The State of registration, the State of operator and the State of manufacture may each appoint a representative, who may be accompanied by technical or other advisers, to take part in all or any portion of the investigation conducted in Bangladesh.
  - (b) When neither the State of registry, nor the State of operator appoints an accredited representative, the Chairman may invite the operator to participate in the investigation conducted in Bangladesh.
  - (c) The State of design and the State of manufacture shall be entitled to appoint one or more advisers, proposed by the organization responsible for the type design and the final assembly of the aircraft.
  - (d) when neither the State of design nor the State of manufacture appoint an accredited representative, the Chairman being the authority of State of occurrence may invite the organization responsible for type design and the final assembly of the aircraft to participate in the investigation.
  - (e) when the Chairman conducting the investigation of an accident to a foreign registered aircraft of a maximum mass of over 2250kg specially requests





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participation by the State of registry, the State of operator, the State of design or the State of manufacture, the States concerned shall each appoint an accredited representative.

- (f) any State which on request provides information, facilities or experts to Bangladesh conducting an investigation, shall be entitled to appoint an accredited representative to participate in the investigation.
  - (g) The representatives may examine witness and shall be given access by the Chairman to all information and evidence.
  - (h) The Chairman may authorize any persons appointed by the State of registration to conduct the investigation and the person so authorized shall submit the report of investigation to the Chairman.
  - (i) The State of registration or any State taking part in investigation may request the Chairman to re-open the investigation if new and material evidence become available.
- (2) A State which has a special interest in an accident by virtue of fatalities or serious injuries to its citizens shall upon making a request to do so, may be permitted by the Chairman to appoint an expert who shall be entitled to:
- (a) Visit the scene of accident;
  - (b) Have access to the relevant factual information;
  - (c) Participate in the identification of victims;
  - (d) Assist in questioning surviving passengers who are citizens of expert's state;  
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  - (e) Receive a copy of the final report.
- (3) The Chairman conducting an investigation into the accident of foreign registered aircraft shall send through the State of operator, a copy of draft final report to the operator to enable the operator to submit comments on the draft final report.
- (4) The Chairman conducting the investigation should send through the State of design and the State of manufacture, a copy of the draft final report to the organization responsible for the type design and final assembly of the aircraft to enable them to submit comments on the draft final report.
- (5) The Chairman shall ensure amendment of the draft final report for inclusion of substances of the comments received from the State of operator or the State of design or the State of manufacture. Alternately, the comments may be appended to the final report.



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- (6) The Chairman shall forward a copy of the final report of the investigation with a minimum delay to the:
  - (a) State of registry;
  - (b) State of the operator;
  - (c) State of design;
  - (d) State of manufacture;
  - (e) All States involved in the investigation;
  - (f) Any States having suffered fatalities or serious injuries to its citizens;
  - (g) Any States that provided relevant information, significant facilities or experts; and
  - (h) ICAO.
- (7) The Chairman conducting the investigation should release the final report in the shortest possible time and, if possible, within twelve months of the date of the accident. If the report cannot be released within twelve months, the Chairman may release an interim report on each anniversary of the accident, detailing the progress of the investigation and any safety issues rose and forward to the:
  - (a) State of registry;
  - (b) State of the operator;
  - (c) State of design;
  - (d) State of manufacture;
  - (e) All States involved in the investigation;
  - (f) Any State having suffered fatalities or serious injuries to its citizens;
  - (g) Any State that provided relevant information, significant facilities or experts; and
  - (h) ICAO.

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|  | <p>PART-B</p> <p>CIVIL AVIATION RULES 1984</p> <p>ON AIRCRAFT ACCIDENT ENQUIRY</p> <p>(SPECIFIC OPERATING REGULATIONS )</p> |  |
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## 248. ACCIDENT/INCIDENTS TO BANGLADESH REGISTERED AIRCRAFT IN FOREIGN STATES

- (1) Where an accident/incident occurs to a Bangladesh registered aircraft in a foreign State: Upon receipt of notification from the State of occurrence, the Chairman shall provide pertinent information on organization whose activities may have directly or indirectly influenced the operation of aircraft.
- (2) Where an accident/incident occurs to a Bangladesh registered aircraft in a foreign state, the Chairman may appoint an accredited representative to participate in the investigation if conducted by the State of occurrence.
- (3) The Chairman may, being the State authority, appoint one or more advisers, proposed by the operator to assist the accredited representative.
- (4) The Chairman entitled to appoint an accredited representative shall also be entitled to appoint one or more advisers to assist the accredited representative in the investigation.
- (5) Advisers assisting accredited representatives shall be permitted, under the accredited representative's supervision, to participate in the investigation to the extent necessary to enable accredited representatives to make their participation effective.
- (6) Participation in the investigation of accidental Bangladesh registered aircraft in a foreign State shall confer entitlement to participate in all aspects of the investigation, under the control of the investigator-in-charge/chief investigator or equivalent of the State of occurrence in particular to:
  - (a) Visit the scene of the accident/incident;
  - (b) Examine the wreckage;
  - (c) Obtain written 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 components examinations, technical briefings, tests and simulations;
  - (h) Participate in investigation progress meeting including deliberations related to analysis, findings, causes and safety recommendations and,
  - (i) Make submissions in respect of the various elements of the investigation.
- (7) Accredited representatives and advisers nominated by the Chairman:

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|  | <p>PART-B</p> <p>CIVIL AVIATION RULES 1984</p> <p>ON AIRCRAFT ACCIDENT ENQUIRY</p> <p>(SPECIFIC OPERATING REGULATIONS )</p> |  |
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- (a) Shall provide the State conducting the investigation with all relevant information available to them; and,
- (b) Shall not divulge information on the process and the findings of the investigation without the express consent of the State conducting the investigation.
- (8) The Chairman shall on request from the State of occurrence conducting the investigation furnish that authority with all relevant information.
- (9) The State of registry for foreign registered aircraft, the State of operator, Bangladesh registered aircraft in foreign state, the State of design, and the State of manufacture shall acknowledge the receipt of notification of an accident or serious incident (Ref: sub-rule-1 of rule-237).
- (10) In reference to this rule sub-rule (2), (3) & (4), Bangladesh being the State of registration shall provide the State of occurrence with any relevant information available regarding the aircraft and flight crews involved in the accident or serious incident, along with name (s) and contact detail of the accredited representative as well as their expected date of arrival to the State of occurrence.
- (11) Upon receipt of notification, Bangladesh shall within minimum delay and by the most suitable and quickest means available, provide the State of occurrence with details of dangerous goods on board the aircraft (if any).
- (12) When an accident or serious incident to a Bangladesh registered aircraft has occurred in the territory of a non-contracting State which does not intend to conduct an investigation and conduct an investigation in co-operation with the non-contracting State of occurrence but failing such co-operation, shall itself conduct an investigation with such information as is available.

END



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CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

PART-C  
AIR NAVIGATION ORDER

AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



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PART-C  
AIR NAVIGATION ORDER (AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION)

APPROVAL AND UPDATING OF THIS PART

1. Bangladesh, being a Signatory to the Convention on International Civil Aviation and a Member of the International Civil Aviation Organization (ICAO), is obligated to adopt measures to ensure Aircraft Accident Investigation, Prevention and Safety Recommendations are in conformity with International Practices. In accordance with ICAO, the fundamental elements of the Bangladesh are aimed at establishing mandatory requirements consistent with ICAO standards in the area of Accident Prevention and Safety Recommendations.
2. With regard to the 'Power to make Rules for Investigation of Accident', the Civil Aviation Ordinance 1960 specifies the following in Section 7, 'Quote' - 7. (1) The Government may, by notification in the Official Gazette, make Rules providing for the investigation of any accident arising out of or in the course of navigation,
  - a) In or over Bangladesh, of any aircraft; or
  - b) Anywhere, of aircraft registered in Bangladesh.
3. The Government of the Peoples' Republic of Bangladesh has responded to the aforementioned Clause of the Civil Aviation Ordinance 1960 through an Official Gazette vide reference S.R.O-398-L/84, dated 30 September 1984, subsequently amended vide S.R.O-66L/2009, dated 27 April 2009 (The latest amendment of CAR '84 as on the date of approval of this Part, empowering the undersigned as Chairman CAAB to conduct Investigation of Aircraft Accident. This has been documented in Part XIII of Civil Aviation Rules 1984 (CAR '84). Part XIII of CAR '84, which addresses all the relevant issues related to the Investigation of Aircraft Accident. The Part XIII encompasses a total of 22 Rules, starting from Rule 234 ending to 255 on accident investigation.
4. The Government of Bangladesh, has accorded another authority through the same Official Gazette in Rule 3 of CAR '84, that specifies on the 'Responsibility of the Chairman as follows:
  - a) The Chairman shall be responsible with the administration of these rules, and shall exercise such powers and perform such functions conferred on him by these rules.
  - b) The Chairman may by order in writing delegate and direct that any power and/or functions conferred or imposed by these rules on him, as the case may be, be exercised or performed on behalf of the Chairman by:
    1. Any officer or authority subordinate to him, or
    2. Any other person, 'Unquote'.

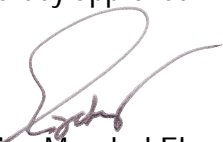


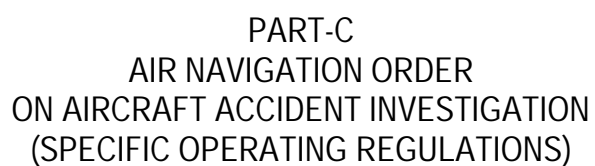


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5. In order to give effect to the requirements of ICAO Annex 13 and Para 2.1.3 of Doc 9756 towards establishing an independent Aircraft Accident Investigation Authority/Agency, and with a view to ensuring that Aircraft Accident Investigation shall be accomplished independently and free from any conflict of interest, the undersigned as Chairman CAAB, hereby declares through exercising the authority of Rule 3 (2) (a) and (b) of CAR '84 by designating a 7-member specific Group, to be known as 'The Aircraft Accident Investigation Group of Bangladesh' (AAIG-BD), which shall be headed by a highly experienced official, serving in the Authority, to ensure conduct of investigation independently and with full authority.
6. This ANO, prepared and developed in conjunction with the title 'Aircraft Accident Enquiry' placed in Part XIII of CAR '84, is based on ICAO Annex 13 to the convention, the Manual of aircraft accident and incident investigation and ICAO Circular 298 on aircraft accident investigation. This ANO shall supersede all the previous ANOs related to aircraft accident and incident investigation and shall be complied with accordingly.
8. The contents of this ANO will be updated or revised as and when necessary (e.g. to comply with new ICAO requirements, to address feedback from operational experience and audits, and make corrections and editorial improvement).
9. The revision will be made by the Head of AAIG-BD himself. He may assign an officer such as any Member Secretary AAIG-BD, to carry out draft of the revision, in which case he will review and submit the revision for approval by the undersigned.
10. Upon the completion of the revision, Head of AAIG-BD or the Member Secretary AAIG-BD will make notes in the File CAAB/CS/32/AAIG-BD/01/MASTER to:
  - a) Record the completion of the revision exercise; and,
  - b) Document the changes to be made to the ANO.
11. A distribution list of the hardcopies or CD copies of the ANO shall exist with AAIG-BD.
12. A latest updated electronic copy of this ANO shall be hoisted in CAAB website [www.caab.gov.bd](http://www.caab.gov.bd) for consumption of public.
13. This ANO, placed in Part-C of the Compendium on Aircraft Accident Investigation in Bangladesh, is hereby approved.

  
Air Vice Marshal Ehsanul Gani Choudhury, GUP, ndu, psc  
Chairman, CAAB  
Date: 30 June 2016

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ANO PART-C  
ACCIDENT AND INCIDENT INVESTIGATION

1. APPLICABILITY

- a) This Section prescribes the requirements for establishing regulations for instituting an investigation into the circumstances of aircraft accidents and serious incidents in compliance with the provisions of Annex 13.
- b) Unless otherwise stated, the specifications in this instruction shall apply to activities following accidents, serious incidents and incidents wherever they occur and specifications shall apply when an aircraft is purchased, leased, chartered or interchanged and if Bangladesh discharges, in part, or in whole the functions and obligation of the State of registry.

2. DEFINITIONS

The AAIG-BD shall ensure that it adopts the definitions as listed in Chapter 1 of Annex 13. While doing so, the AAIG-BD shall also ensure that in conformity with the Primary Aviation Legislation as well as the Specific Operating Regulations and through its Air Navigation Orders and Guidance Materials the definitions for "accident", "incident", "serious incident" and "investigator-in-charge" as contained in Annex 13 shall be adopted. In addition, the AAIG-BD shall make necessary amendments to portion of the 'Definitions' relevant to Aircraft Accident and Incident Investigation to remain at par with the up-to-date information on the 'Definitions' provided in ICAO Annex 13. Accordingly, the following definitions have been compiled:

Aircraft Accident Investigation Team (AAIT) shall mean the Team comprising of the Investigator-in-charge together with the other members assigned by the AAIG-BD to conduct investigation on any serious incident or accident.

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

- a) A person is fatally or seriously injured as a result of:
  1. Being in the aircraft, or
  2. Direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or



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3. Direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

b) The aircraft sustains damage or structural failure which:

1. Adversely affects the structural strength, performance or flight characteristics of the aircraft, and
2. Would normally require major repair or replacement of the affected component, Except for engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the Radom); or,
3. The aircraft is missing or is completely inaccessible.

Note 1. For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

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

Accredited representative shall mean - 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 shall mean - 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.

AAIG-BD shall mean, Aircraft Accident Investigation Group of Bangladesh, formed under the Legislative Provision outlined in the Bangladesh ordinance 1960 that makes provision for the Ministry of Civil Aviation and Tourism to enact Civil Aviation Authority Rules empowering the Chairman of the Authority through the designation of a specific agency/commission/board or other specific body to conduct aircraft accident and serious incident investigations

Aircraft shall mean - Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.



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

Contributing factors shall mean - 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.

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

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

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

Investigator-in-charge shall mean - A person charged, on the basis of his or her qualifications, with the responsibility for the organization, conduct and control of an investigation. Nothing in the above definition is intended to preclude the functions of an investigator-in-charge being assigned to a commission or other body.

Maximum mass shall mean - Maximum certificated take-off mass.

Operator shall mean - A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Preliminary/Initial Report shall mean - The communication used for the prompt dissemination of data obtained during the early stages of the investigation.

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

Serious incident shall mean - An incident involving circumstances indicating that there was a high probability of an accident and associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an





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unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down.

The incidents listed below are 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:

- a) Near collisions requiring an avoidance maneuver to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate;
- b) Collisions not classified as accidents;
- c) Controlled flight into terrain only marginally avoided;
- d) Aborted take-offs on a closed or engaged runway, on a taxiway or unassigned runway;
- e) Take-offs from a closed or engaged runway, from a taxiway or unassigned runway;
- f) Landings or attempted landings on a closed or engaged runway, on a taxiway or unassigned runway;
- g) Gross failures to achieve predicted performance during take-off or initial climb;
- h) Fires and/or smoke in the cockpit, in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents;
- i) Events requiring the emergency use of oxygen by the flight crew;
- j) Aircraft structural failures or engine disintegrations, including uncontained turbine engine failures, not classified as an accident;
- k) Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft;
- l) Flight crew incapacitation in flight. Fuel quantity level or distribution situations requiring the declaration of an emergency by the pilot, such as insufficient fuel, fuel exhaustion, fuel starvation, or inability to use all usable fuel on board;
- m) Runway incursions classified with severity A;
- n) Take-off or landing incidents. Incidents such as under-shooting, overrunning or running off the side of runways;



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- o) System failures, weather phenomena, operations outside the approved flight envelope or other occurrences which caused or could have caused difficulties controlling the aircraft;
- p) Failures of more than one system in a redundancy system mandatory for flight guidance and navigation;
- q) The unintentional or, as an emergency measure, the intentional release of a slung load or any other load carried external to the aircraft.

Serious injury shall mean - 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/tendon damage; or
- d) Involves injury to any internal organ; or
- e) Involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or
- f) Involves verified exposure to infectious substances or injurious radiation.

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

State of Manufacture shall mean - The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

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

State of the Operator shall mean - 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 shall mean - The State on whose register the aircraft is entered. In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry.



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

Substantial Damage shall mean damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft which would normally require major repair or replacement of the affected component.

3. INSTITUTING AN INVESTIGATION

Bangladesh shall institute an investigation into the circumstances of aircraft accidents and serious incidents in compliance with the provisions of Annex 13.

4. DESIGNATION OF AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH (AAIG-BD)

Pursuant to the 'Power to make Rules for Investigation of Accident' of the Civil Aviation Ordinance 1960 and consequent to Rule 3 (2) (a) and/or (b) a specific Group shall be designated, to be known as 'The Aircraft Accident Investigation Group', Bangladesh (AAIG-BD), which shall be headed by an adequately experienced official of the Authority or such suitable person, to ensure conduct of investigation into aircraft accident and serious incident independently, through an independent process and with full authority in compliance with provisions of ICAO Annex 13 in conducting the investigation on accident and/or serious incident. The AAIG-BD thus formed, shall be independent from all other aviation organizations of Bangladesh and shall not receive nor seek instructions regarding the conduct of its investigations. The AAIG-BD shall have an exclusive accident investigation entity, empowered to appoint, for each accident and/or serious incident to be investigated, appropriately qualified and suitable Investigation Team to be known as Aircraft Accident Investigation Team (AAIT).

5. NOTIFICATION TO AIRCRAFT ACCIDENT INVESTIGATION AUTHORITY

Notification on aircraft accident or serious incident in the territory of a contracting State to aircraft of own State or other contracting State is the responsibility of the State of occurrence. Hence, any person becomes aware of any aircraft accidents and serious incidents within the territory of Bangladesh shall, by the most suitable and quickest means, provide notification of such aircraft accidents and serious incidents directly to any or the assigned member of the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) for onward notification and/or investigation action by the AAIG-BD. The AAIG-BD shall formulate a procedure as to how the Notification shall reach to AAIG-BD directly and in the quickest possible time and thereon how the AAIG-BD will proceed for investigation following the receipt of such Notification. Notification to AAIG-BD shall be made in the following cases:



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- a) Accident involving a Bangladesh registered aircraft;
- b) Any aircraft accident that occurs in Bangladesh territory;
- c) The owner of the aircraft, the operator or hirer (if any) shall each be responsible for ensuring that a notification is furnished by the most suitable and quickest means directly and immediately after the accident, serious incidents or incident followed by a written report to the Head of AAIG-BD; and,
- d) Any pilot observing any aircraft accident, serious incidents or incident in Bangladesh shall report the same in the similar way and in details to the Head of AAIG-BD.

6. NOTIFICATION BY THE AIRCRAFT ACCIDENT INVESTIGATION AUTHORITY

- a) In the event of any aircraft accident that occurs in Bangladesh territory, the Head of AAIG-BD shall forward a notification of an accident, serious incident or incident with minimum of delay by the most suitable and quickest means available to the following:
  - 1. State of registry in case of foreign aircraft;
  - 2. State of operator in case of foreign operator;
  - 3. State of design;
  - 4. State of manufacture; and,
  - 5. International Civil Aviation Organization, when the aircraft involved is of a maximum mass of over 2250 kg.
- b) When Bangladesh is not the State of occurrence of an accident or serious incident but is the State of registry or the State of operator of the aircraft, the Head of AAIG-BD shall forward notification of the accident or serious incident occurring outside the territory of Bangladesh and/or in a non-contracting State or outside the territory of any contracting State or where the State of occurrence is not aware of the accident or serious incident, to;
  - 1. All the States involved;
  - 2. International Civil Aviation organization (ICAO);
  - 3. The Ministry of Aviation & Tourism, Government of Bangladesh;
  - 4. Chairman CAA Bangladesh;
  - 5. The concerned Operator whenever possible.



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7. CONDUCT OF INVESTIGATION IN COMPLIANCE WITH ANNEX-13

'The Aircraft Accident Investigation Group' of Bangladesh (AAIG-BD) shall ensure conduct of investigation into aircraft accident and serious incident independently, designating an AAIT comprising of adequately qualified aircraft accident investigators through issuance of a 'Memorandum' to conduct investigation with an independent process and full authority in compliance with provisions of ICAO Annex 13 in conducting the investigation.

8. OBJECTIVE OF INVESTIGATION

The AAIG-BD shall ensure that the sole objective of the investigation of an accident or serious incident or incident shall be the prevention of accidents, serious incidents and incidents and that it is not the purpose of the investigation to apportion blame or liability.

9. AMENDMENT OF REGULATIONS ON ACCIDENT INVESTIGATION

The Head of AAIG-BD shall ensure that amendments of this ANO is effected in a timely manner whenever amendments to ICAO Annexes 13 is received. Immediately after the completion of the amendment action, the amended document shall be uplifted in the AAIG-BD part of CAAB website [www.caab.gov.bd](http://www.caab.gov.bd) with a view to aiming that the information be disseminated to all concerned persons and agencies, as applicable, and this should be accomplished within a minimum possible time. The concerned persons and agencies are the operators, any prospective operators, service providers and all applicable aviation personnel, agencies organizations etc. usually associated with accident of aircraft. The Head of AAIG-BD shall remain responsible to implement this. The companies/agencies/individuals receiving the information are required to update their documents reflecting the latest information displayed in the website and/or disseminated.

10. IDENTIFYING AND NOTIFYING DIFFERENCES OF REGULATIONS

Should the Head of AAIG-BD intends to develop and implement a policy other than or different from those in the Annex 13, the Head of AAIG-BD shall ensure that such difference(s) are incorporated in the ANO with the prior approval from Chairman CAAB. The Head of AAIG-BD also shall ensure that such differences are properly documented and notified to ICAO on a timely manner.



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11. POWERS OF THE INVESTIGATORS

- a) The Head of AAIG-BD shall ensure that, for the purpose of investigation, any member of the AAIG-BD as well as any member of the aircraft accident investigation team (AAIT) including the Investigator in Charge (IIC) shall have unhampered access to and control over the scene of the accident and the wreckage without delay. In case of some particular situation wherein the circumstances reveal for the requirement of any judicial investigations associated with accident investigation, the AAIG-BD shall ensure to comply with the requirement of Annex 13.
- b) The Head of AAIG-BD shall ensure that it will grant the accident investigation authority/IIC unhampered access to and control over all relevant material/evidence, including flight recorders and air traffic service (ATS) records.
- c) The Head of AAIG-BD shall ensure that it will enable the any member of the AAIG-BD, any member of the designated AAIT and/or the designated IIC to carry out detailed examination of relevant material/evidence without delay.
- d) Other powers of the members of the AAIG-BD, especially when acting as a member of AAIT as well as those of the AAIT are as follows:
  1. Unhampered access to the wreckage and control over all relevant materials/evidence, including flight records and ATS record and shall have unrestricted control over it to ensure that a detailed examination can be made without delay by authorized personnel participating in the investigation;
  2. Summon any person or witness;
  3. Take evidence on oath or affirmation;
  4. Require the production of documents or any part, or component or an aircraft relevant to the investigations;
  5. Require all or any flight crew members of the aircraft involved in the accident or incident to undergo medical examination promptly after the occurrence by a physician, preferably experienced in Aircraft accident investigation. These examinations should be expeditious.
  6. Where an investigator has required the production of a document or a part or component of an aircraft relevant to the investigation, he may retain the document, part or component of the aircraft, as the case may be, for such period as it is necessary for the purpose of the investigation and may take copies of, or take extracts from, the documents so produced or retained.





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7. A summon shall be in writing under the hand of the investigator and shall specify the time and place for taking of evidence and the documents and the part or components of an aircraft (if any) required to be produced.
8. A summon may be served either personally on the person to be served or by prepaid registered letter addressed to the person at his last known place of abode or business.
9. Carry out detailed examination of relevant material/evidence without delay.

12. TASKS OF THE INVESTIGATORS

- a) The Head of AAIG-BD shall ensure that the designated investigators shall have independence in the conduct of the investigation and unrestricted authority over its conduct, consistent with the provisions of ANO 13. Any member of the AAIG-BD and any member of the AAIT designated by the AAIG-BD as investigator shall have the task of taking statements from witnesses.
- b) Other tasks of the members of the AAIG-BD, when acting as a member of AAIT as well as those of the AAIT are as follows:
  1. The gathering, recording and analysis of all available information on that accident or incident;
  2. If appropriate, the issuance of safety recommendations;
  3. If possible, determination of cause;
  4. The completion of final report;
  5. The scene of the accident shall be visited, the wreckage examined and statements taken from witness.
  6. Any judicial or administrative proceeding to apportion blame or liabilities shall be separated from any investigation conducted.
  7. Effectiveness shall be made of Flight Recorder in the investigation of an accident or incident. Operator of the aircraft on which accident or incident has occurred shall arrange for read out of the Flight Recorder without delay. In the event that the operator does not have adequate facilities to read out the Flight Recorder, the operator may use the facilities made available to it by other state, giving consideration to the capabilities of the read-out facilities, the timelines of read-out and the location of read-out facilities.



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8. The investigators appointed by the Head of AAIG-BD and conducting the investigation into a fatal accident shall arrange for complete autopsy examination of fatally injured flight crews and, subject to the particular circumstances, of fatally injured passengers and cabin attendants, by a pathologist, preferably experienced in an Aircraft accident investigation. These examinations shall be expeditions and complete.
9. The investigators conducting the investigation shall recognize the need of coordination between the investigator-in-charge/chief investigator and the judicial authorities. Particular attention shall be given to evidence which requires prompt recording and analyzing for the investigation to be successful, such as the examination and identification of victims and read-out of Flight Recorder recordings.
10. If in the course of investigation it becomes known or it is suspected that an act of unlawful interference was involved, the investigator in-charge/chief investigator shall have to initiate action to ensure that the concerned aviation security authorities of CAAB are informed.
11. If it appears to the investigator that the investigation may result in framing charge against any person for an offence or in the cancellation of any license or certificate issued or of a rating or other endorsement endorsed in a license or certificate issued, the investigators shall give that person or holder of that license or certificate an opportunity of making any statement or given any evidence and calling witness on his behalf.

13. NON-DISCLOSURE OF RECORDS

The AAIG-BD shall ensure that the investigators conducting the investigation of an accident or incident shall not make the CVR records available for purposes other than accident or incident investigation, unless the AAIG-BD determines that their disclosure outweighs the adverse domestic and international impact such action may have on that or any future investigation. The mechanism for AAIG-BD to share the CVR readout information to anybody else other than the investigators shall be based on the understanding and through some documentation of commitment that other than the specified persons or agents, nobody will have access to the records. Some cases like personnel or institutions capable of having special arrangement to conduct additional research or special investigation to find out the core reason for something very significant and contributing to investigation may be allowed to give access to the reports. However, such access should be under mutual agreement with the Head of AAIG-BD that the person or the agency shall not, under any circumstances, disclose any information to any other person or agency. In all circumstances, the Head of AAIG-BD shall ensure that, to reinforce confidentiality, those involved in the disclosure, are invited to sign a non-disclosure agreement.





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14. NON DISCLOSURE OF INFORMATION GATHERED

- a) The AAIG-BD shall ensure that the investigators conducting the investigation of an accident or incident shall not make the CVR records and CVR recordings available for purposes other than accident or incident investigation, unless the Head of AAIG-BD determines that their disclosure outweighs the adverse domestic and international impact such action may have on that or any future investigation. The CVR records and CVR recordings shall be included in the final report or its appendices only when pertinent to the analysis of the accident or incident. Parts of the records not relevant to the analysis shall not be disclosed.
- b) Other points of non-disclosure by the members of the AAIG-BD, especially when performing the duties of an investigator, as well as those of the AAIT are as follows:
  - 1. All statements taken from persons by the investigators in the course of their investigation;
  - 2. All communication between persons having been involved in the operation of the aircraft;
  - 3. Medical or private information regarding persons involved in the accident or incident;
  - 4. Cockpit voice recordings and transcripts from such recordings;
  - 5. Recordings and transcriptions of recordings from air traffic control units; and,
  - 6. Opinion expressed in the analysis of information including flight recorder information.

15. REOPENING OF THE INVESTIGATION

If after the investigation has been closed, new and significant evidence become available, the Head of AAIG-BD shall re-open the investigation.

16. INFORMATION ON ACCIDENTS AND INCIDENTS

- a) The AAIG-BD shall ensure that on request from the State conducting the investigation of an accident or incident, it will provide that State with all the relevant information available to it.
- b) The AAIG-BD shall ensure to provide facilities or services of which have been, or would normally have been, used by an aircraft prior to an accident or incident, and which has information pertinent to the investigation shall provide such information to the State conducting the investigation.



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- c) The AAIG-BD shall ensure that Bangladesh as the State of registry and/or the State of operator, on request from other State conducting the investigation, shall provide pertinent information on any organization whose activities may have directly or indirectly influenced the operation of aircraft.

17. RIGHTS OF PERSON WHO MAY BE CHARGED

If it appears to the investigator that the investigation may result in framing a charge against any person for an offence or in the cancellation of any license or certificate or of a rating or other endorsed in a license or certificate or of rating or other endorsed in a license or certificate, the AAIG-BD shall ensure that the investigator shall give that person or the holder of that license or certificate, an opportunity of making any statement or giving any evidence and calling witness on his behalf.

18. PARTICIPATION OF ACCREDITED REPRESENTATIVES FROM OTHER STATES

- a) Where an accident/incident occurs to a Bangladesh registered aircraft in a foreign State, upon receipt of notification from the State of occurrence, the Head of AAIG-BD shall provide pertinent information to organization whose activities may have directly or indirectly influenced the operation of aircraft;
- b) The Head of AAIG-BD shall ensure that Bangladesh as the State conducting the investigation will safeguard the participation of accredited representatives from other States involved in the aircraft accident;
- c) Where an accident/incident occurs to a Bangladesh registered aircraft in a foreign state, the Head of AAIG-BD may appoint an accredited representative to participate in the investigation if conducted by the State of occurrence;
- d) The Head of AAIG-BD may appoint one or more advisers, proposed by the operator to assist the accredited representative;
- e) The Head of AAIG-BD entitled to appoint an accredited representative shall also be entitled to appoint one or more advisers to assist the accredited representative in the investigation;
- f) Advisers assisting accredited representatives shall be permitted, under the accredited representative's supervision, to participate in the investigation to the extent necessary to enable accredited representatives to make their participation effective;



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g) Participation in the investigation of accidental Bangladesh registered aircraft in a foreign State shall confer entitlement to participate in all aspects of the investigation, under the control of the investigator-in-charge/chief investigator or equivalent of the State of occurrence in particular to:

1. Visit the scene of the accident/incident;
2. Examine the wreckage;
3. Obtain written information and suggest areas of questioning;
4. Have full access to all relevant evidence as soon as possible;
5. Receive copies of all pertinent documents;
6. Participate in read-outs of recorded media;
7. Participate in off-scene investigative activities such as components examinations, technical briefings, tests and simulations;
8. Participate in investigation progress meeting including deliberations related to analysis, findings, causes and safety recommendations; and,
9. Make submissions in respect of the various elements of the investigation.

19. FUNCTIONS OF THE ACCREDITED REPRESENTATIVES AND ADVISERS

- a) The Head of AAIG-BD shall ensure that the Accredited Representatives and Advisers:
1. Shall provide the State conducting the investigation with all relevant information available to them;
  2. Shall not divulge information on the process and the findings of the investigation without the express consent of the State conducting the investigation.
- b) The Head of AAIG-BD shall on request from the State of occurrence conducting the investigation furnish that authority with all relevant information;
- c) The State of registry for foreign registered aircraft, the State of operator, Bangladesh registered aircraft in foreign state, the State of design, and the State of manufacture shall acknowledge the receipt of notification of an accident or serious incident;



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- d) If Bangladesh is the State of registration, the Head of AAIG-BD shall ensure to provide the State of occurrence with any relevant information available regarding the aircraft and flight crews involved in the accident or serious incident, along with name (s) and contact detail of the accredited representative as well as their expected date of arrival to the State of occurrence;
- e) Upon receipt of notification, the Head of AAIG-BD shall ensure that Bangladesh will within minimum delay and by the most suitable and quickest means available, provide the State of occurrence with details of dangerous goods on board the aircraft (if any);
- f) When an accident or serious incident to a Bangladesh registered aircraft has occurred in the territory of a non-contracting State which does not intend to conduct an investigation and/or conduct an investigation in co-operation with the non-contracting State of occurrence but failing such co-operation, shall itself conduct an investigation with such information as is available.

20. ORGANIZATIONAL STRUCTURE OF AAIG-BD

- a) Chairman CAAB, under the provisions of Bangladesh Ordinance 1960 as well those of Rule 3 of CAR '84, shall delegate the responsibility for the execution of Part XIII of CAR '84 that deals with Aircraft Accident Enquiry, to the Head of Aircraft Accident Investigation Group of Bangladesh (AAIG-BD);
- b) The Head of AAIG-BD shall select a group of experienced persons to form the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD). Together with the selected personnel, so proposed by the Head of AAIG-BD, the Head of AAIG-BD will administer, regulate and control the accomplishment of an independent accident investigation, should an aircraft serious incident or accident occur inside the territory of Bangladesh.

21. RECRUITMENT, GUIDANCE MATERIAL AND JOB DESCRIPTION OF INVESTIGATORS

- a) The Head of AAIG-BD will establish the organizational structure for the investigation of aircraft accidents and serious incidents and define the job descriptions of each of the AAIG-BD panel, each of the permanent investigators as well as those of all other investigators or members in the case of ad-hoc investigation groups.
- b) The Head of AAIG-BD shall establish minimum qualifications and experience requirements for aircraft accident investigators, such as, the required qualifications for the recruitment of investigators (in the case of full-time investigators) or for the designation of investigators (in the case of 'occasional investigators'). Such requirements should include:



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1. Knowledge and practical experience in civil aviation (as pilot, engineer, air traffic controller or other areas of expertise); and,
  2. In the case of occasional investigators, investigation courses and practical experience in investigations.
- c) The Head of AAIG-BD shall make the provision to call on the best technical expertise from any source to be a part of the Aircraft Accident Investigation Team (AAIT) to conduct the investigation;
- d) The Head of AAIG-BD shall make the provision to have the AAIG-BD's own appropriately qualified personnel identified and charged with aircraft accident and serious incident investigation duties. A list with qualifications of designated investigators (full-time and part time/seconded investigators), having sufficient practical experience, and not only theoretical knowledge acquired in courses or seminars shall be prepared by the Head of AAIG-BD. The concerned investigators shall be imparted with appropriate training as applicable.
- e) The Head of AAIG-BD shall establish methodology to identify staff needs wherein the actual number of aircraft accident investigators employed or available and number of investigations conducted under the Bangladesh's responsibility, process to establish and fill the required posts initially and on an on-going basis, ability of Bangladesh to accomplish all required activities including the 'development of regulations, procedures and other guidance materials', 'Training', and 'reporting and analyses of safety deficiencies' be reviewed.
- f) In case Bangladesh of its own falls in dearth of appropriately qualified personnel, or not in possession of sufficient number of such qualified investigators, the AAIG-BD shall make arrangements i.e. Memoranda of Understanding (MoUs) with other States or with regional organizations to obtain the necessary personnel in an expeditious manner in the event of an accident.
1. Form a panel of investigators appropriate for performing investigation;
  2. Arrange to train the proposed investigators as appropriate;
  3. Detail appropriately qualified Investigators forming the Aircraft Accident Investigation Team (AAIT) to conduct investigation following an accident/serious incident etc.;
  4. Develop and provide the necessary guidance material for use by the Aircraft Accident Investigation Team (AAIT);
  5. Make the provision to ensure that the AAIG-BD has sufficient personnel to meet the obligation for Bangladesh and other States related to aircraft accident investigations.



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22. CREDENTIALS FOR THE ACCIDENT INVESTIGATORS

The AAIG-BD shall ensure that all members of the AAIG-BD as well as the Investigators are issued with appropriately made Credentials. These investigators shall encompass the full time and part time investigators. The credentials shall contain the following:

1. Reference to empowering the legislation/regulation wherein reference may be made as of the ANO;
2. Method to control currency of credentials wherein the date of Issue and the date of expiry shall be mentioned and each time the credential is renewed, statement on the larger may be kept for appropriate control numbering and recording;
3. Salient Instruction on the access control and assignment as applicable; and,
4. A printed Photo of investigator.

23. TRAINING FOR ACCIDENT INVESTIGATORS

- a) The AAIG-BD shall ensure that all members of the AAIG-BD as well as the Investigators who will be involved in conducting Aircraft Accident Investigations shall undergo appropriate training programs for efficient conduct of investigation. The training programme shall include Initial, OJT, Recurrent and specialized training, including timetables, as applicable. The AAIG-BD shall develop appropriate Guidance on the construction, information material and Training Programme and associated Syllabus for the Initial, OJT, Recurrent and specialized training which shall include Basic and Advance Investigation Training Courses.
- b) The AAIG-BD shall also ensure that the Training Programme so developed shall have the detailed information on the prioritization and effective implementation on the type of training i.e., Initial, OJT, Recurrent and specialized training to be provided to the investigators during an established period.
- c) With a view to achieving the implementation of the type and frequency of training being provided (initial, recurrent and specialized), the AAIG-BD shall ensure that the training provided is sufficient for the investigators to acquire and maintain the required level of knowledge, skills, competence and qualifications in accordance with their assigned duties and responsibilities.





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- d) The AAIG-BD shall ensure that it establishes a system through written instruction and procedure for the establishment and maintenance of training records for its technical personnel, such as the AAIG-BD Team members as well as the Investigators, including records on the OJT received by all such personnel. The AAIG-BD shall also ensure that all training records are systematically retained.
- e) The AAIG-BD shall ensure that it provides investigators with initial and recurrent training related to safety at the accident site. In this regard the Training Programme, so developed by the AAIG-BD, shall contain what all Safety Equipment and Safety Measures shall be used or taken by the investigators, or what physical or material protection shall be provided to the investigators with a view to ensuring that no personal injury or any contaminated infections etc. may affect the investigators under any circumstances. Such Training shall be given to all personnel designated to carry out investigation tasks.
- f) The AAIG-BD shall develop and implement guidelines to ensure that its investigators have their investigation field kits and essential personal items packed and ready to proceed without delay to the accident site. Such Guidance material shall reveal enlisted items (field kits and essential personal items) which shall be momentarily available and easily packed. Suitable transportation facility shall be made readily available including sufficient financial resources to facilitate fast movement by the AAIG-BD Team or the assigned Investigators.

24. AVAILABILITY OF AIRCRAFT ACCIDENT INVESTIGATORS

- a) The AAIG-BD may make arrangements to use experts seconded from CAA Bangladesh or other Organizations in Bangladesh, such as Air Operators, Bangladesh Army, Air Force, Navy personnel or any other Bangladesh Government Agencies, as investigators. Whenever such arrangements will be made by the AAIG-BD, it shall ensure to establish procedure for implementation of the same by coordinating with Chairman CAAB or the CEOs of the other Organization(s) with a view to ensuring that the investigators are relieved from their regular duties in the CAAB or other Organization during the process of investigation. Such experts, so utilized for the investigation purposes, shall be remained under the working disposal of the AAIT until their functions on the investigation are over. The AAIG-BD, while making arrangements for such secondment of experts for the investigation shall be required to establish arrangements for adequate funds for the day to day functioning by the engaged investigators.



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- b) Whenever the AAIG-BD makes use of the experts seconded by CAAB or other organizations in Bangladesh as investigators, it shall ensure to establish and implement measures to avoid possible conflicts of interest. In this regard, the AAIG-BD shall establish plans and policies addressing the coordination and responsibilities of various Government agencies to be involved as investigator(s) to ensure systematic conduct of an investigation and shall ensure selection of investigators to avoid possible conflicts of interest in a manner that any person from the CAAB or other organization shall not have any interest in conjunction with the accident.

25. DOCUMENTATION, EQUIPMENT AND TRANSPORTATION

- a) The AAIG-BD shall have adequate manpower and a separate accommodation dedicated for the AAIG-BD as well as the AAIT including adequate facility for storing equipment to be used by investigators during accident investigations. The storing facility shall have investigator field kits to be provided to aircraft accident and incident investigators, including the essential personal items and required equipment for their safety protection. In addition, the AAIG-BD shall have sufficiently spaced office accommodation, office equipment and utensils, up-to-date documentation system, procedures and guidance materials for the investigators to assist investigators to effectively accomplish their functions and responsibilities.
- b) The AAIG-BD shall develop and issue an investigation procedures and guidance manual that shall contain the policies and procedures to be followed for conducting investigation related tasks. The Manual should be a controlled document or a set of controlled documents which will have the options and process to manage amendments so that the investigators are able to actually use the latest amendments of the Manual/Documents for the purpose of investigation.
- c) The AAIG-BD shall develop and implement guidelines to ensure that its investigators have their investigation equipment to enable the conduct of investigation. These equipment shall include tools, survey equipment, marking equipment, etc. To ensure this the AIG-BG shall have a list of the collective and individual equipment available and keeps this list up-to-date. The AAIG-BD shall also ensure that the relevant personnel is aware of and has ready access to these equipment.
- d) The AAIG-BD shall develop and implement guidelines to ensure that its investigators are provided with all necessary means of communication and transportation to enable the conduct of investigations. The AAIG-BD shall also ensure that the relevant personnel is aware of and has the required information regarding the contact details for the availability of such transportation facility.





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- e) The AAIG-BD shall develop and implement guidelines to ensure that its investigators are provided with all necessary protective equipment to address biological hazards and other hazards at accident sites. The AAIG-BD shall also ensure that a list of such protection item is available and the relevant personnel is aware of and has the required information regarding such protection items.

26. AIRCRAFT ACCIDENT INVESTIGATION AND SAFETY RECOMMENDATIONS

- a) The AAIG-BD shall establish the policy to ensure that aircraft accident and incident investigations falling under its responsibility to conduct, including major accident investigations, are carried out in an efficient manner. To this effect, the AAIG-BD shall have a policy to determine if the different types of occurrences (e.g. serious incidents or accidents, fatal or non-fatal accidents, public transport or general aviation) and serious incidents, have been addressed. The AAIG-BD will establish documented policy, on how it will deal with the various types of occurrences such as serious incidents or accidents, fatal or non-fatal accidents, public transport or general aviation. Additionally, depending upon the type of accident the AAIG-BD may like to delegate the responsibility to another State upon receipt of advice from Chairman CAAB as well as the Ministry of Civil Aviation and Tourism. In this case, in coordination with Chairman CAAB and the Ministry of Civil Aviation and Tourism, the AAIG-BD will specify the type and scope of investigation to be launched.
- b) The AAIG-BD shall establish and implement the following to help determine the extent of an accident investigation depending on the circumstances of the accident and the safety lessons it expects to draw from the investigation. For this purposes, all investigations shall be reviewed in order to ascertain the scope and depth of the investigation, and whether or not the investigators will be deployed on site:
  - 1. A process for investigating the various types of accidents;
  - 2. Guidance material to help determine the extent of an accident investigation depending on the circumstances of the accident;
  - 3. The safety lessons it expects to draw from the investigation.
- c) Following an occurrence, the AAIG-BD shall ascertain through an established process and Guidance Material to help determine which types of incidents, such as the air traffic service related incidents, the Pilot error related incident, the aircraft mechanical failure related, adverse weather being involved or any combined factor etc., will be investigated by the AAIG-BD, in conformance with Annex 13. The process should entail whether the occurrence will fall under the category of a serious incident or accident.



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27. UNLAWFUL INTERFERENCE

The AAIG-BD shall establish and implement procedures to ensure that it informs the aviation security authorities immediately if an act of unlawful interference was involved or is suspected. While performing this, the AAIG-BD shall ensure that copies of relevant correspondence evidences on the perceived act of unlawful interference are systematically recorded and evidences kept.

28. APPOINTMENT OF INVESTIGATION TEAM (AAIT)

- a) Soon after an aircraft occurrence or just prior to the same, if indications are available for any serious incident or accident to take place, the AAIG-BD shall ensure to take immediate initiative to conduct an investigation through the designation of an investigator-in-charge (IIC) and the appointment of an investigation team, to be known as Aircraft Accident Investigation Team (AAIT), as necessary. The AAIG-BD shall issue a 'Memorandum' to this effect designating the name of the IIC and the AAIT with the 'Terms and Reference' of the AAIT, as applicable, to conduct investigation, be it a serious incident or accident.
- b) While forming the AAIT, the AAIG-BD shall ensure that at least one experienced investigator is assigned to each investigation to provide the required level of experience during an investigation. To this effect, the AAIG-BD shall publish a list of experienced investigators and provide them with appropriate credentials for the appointment of IIC for the investigation.
- c) The AAIG-BD shall ensure that it develops and implement through Guidance material for the protection of investigators against biological hazards and other hazards at the accident site. In this regard, in order to safeguard the investigators, the AAIG-BD shall cater for the adversity of terrain, environmental conditions, wreckage, and hazardous materials such as chemical, explosive, biological and radioactive items those have considerable potential to cause serious physical injury. Hazardous materials (Hazmats) jeopardize the health and safety of all personnel at the occurrence site and are found in various forms such as toxic, flammable corrosive, radioactive, biological and other substances.

29. NOTIFICATION ON SERIOUS INCIDENT AND ACCIDENT

- a) The AAIG-BD shall forward accident or incident initial notifications to other States and Agencies as applicable and as per the Guidance Material issued. Hence, the AAIG-BD will have in place to ensure that correct and up-to-date contact information of aircraft accident investigation authorities of other States is made available to, and used by the Head of AAIG-BD for forwarding accident or incident initial notifications. The contact information so stored by the AAIG-BD must have accuracy and should be made available to the members of AAIG-BD. Timely amendments shall be made of the contact information based on the contact list published on the ICAO public website.



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- b) The AAIG-BD shall ensure that it provides ICAO and other international Agencies, as applicable, with accurate, comprehensive and up-to-date contact information of its own establishment. The contact details of the Head, the Member Secretary and other members of the AAIG-BD Team shall be kept up-to-date at all times for this purpose and the AAIG-BD shall ensure by confirming with the ICAO public website the availability of the most current and up-to-date contact list of AAIG-BD Team.
- c) The AAIG-BD shall establish and implement a process to deal with notifications of accidents and incidents (forwarded within the State or forwarded by other States) during office hours as well as out of office hours. To this effect, the AAIG-BD will ensure to establish the process to report occurrences on a 24-hour basis and in order to ensure this, at least one member from the AAIG-BD will be appointed as Duty Officer who will remain alert and operational on 24 hour basis. The AAIG-BD will device methods through allocation process to ensure that the duty officer's contact number is made available to all concerned persons and organizations.
- d) The AAIG-BD shall ensure that in case Bangladesh is the State of Occurrence of a serious incident or accident, it will forward the information of an accident/serious incident notifications to other States involved and, when applicable, ICAO. To this effect, the AIG-BG shall have a written Procedure Document highlighting the following points:
1. Established Procedures, guidelines, checklists;
  2. The Notifications documents are authenticated;
  3. The documents on Notification have been filed Systematically and Records Maintained;
  4. The Notification shall be in compliance with the requirements of the relevant ICAO referenced documents.
- e) The AAIG-BD shall ensure that the forwarding of accident/serious incident notifications to the States involved and, when applicable, ICAO in the following situations where Bangladesh is not the State of Occurrence:
1. Bangladesh as a State of Registry, in the case of an occurrence in a non-Contracting State or outside the territory of any State; and,
  2. Bangladesh as State of Registry or State of the Operator, when the State of Occurrence is not aware of a serious incident.
- f) However, the AAIG-BD shall ensure that such records on Notification shall be kept by the AAIG-BD in a systematically and sequential manner.



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- g) The AAIG-BD shall ensure that in all cases of serious incident or accident the initial notifications of aircraft accidents and serious incidents shall be forwarded in a timely manner to the States and Organizations concerned as well as ICAO, when applicable. The AAIG-BD shall also ensure that it will not unnecessarily delay the forwarding of initial notifications while waiting to compile additional information and that the copies of recent notifications and date of dispatch shall be sequentially recorded and such Records are maintained.
- h) The AAIG-BD shall ensure that the format and content of the notification are clear and concise, prepared in preferably in English in a Format developed by the AAIG-BD, taking into account the language of the recipient(s). The AAIG-BD shall also ensure that the Format on Notification contains all the available and relevant information required as per the guidance provided in ICAO Annex 13.

30. APPOINTMENT OF ACCREDITED REPRESENTATIVE

- a) The AAIG-BD shall provide provision while drafting the Memorandum for investigation for the assigned AAIT to appoint an accredited representative if it intends to do so. The AAIG-BD will also make the provision within an established procedure to implement that it informs any other State conducting the investigation if it intends to appoint an accredited representative and, if so, will provide the associated details to the State. While performing so, the AAIG-BD shall ensure that copies of relevant correspondence on the appointment of accredited representatives are systematically maintained and recorded.
- b) The AAIG-BD shall ensure to issue instructions in the Memorandum providing the entitlement for Investigator-in-charge (IIC), in all aspects of the investigations to be conducted, the engagement of an accredited representatives from other States to participate in the investigation. The accredited representatives shall remain under full control of the AAIT. In such cases the accredited representatives must be entitled to the following:
  - 1. Visit the scene of the accident;
  - 2. Examine the wreckage;
  - 3. Obtain witness information and suggest areas of questioning;
  - 4. Have full access to all relevant evidence as soon as possible;
  - 5. Receive copies of all pertinent documents;
  - 6. Participate in read-outs of recorded media;



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7. Participate in off scene investigative activities such as component examinations, technical briefings, tests and simulations;
  8. Participate in investigation progress meetings including deliberations related to analyses, findings, causes and safety recommendations; and,
  9. Make submissions of the various elements of the investigation.
- c) The AAIG-BD shall ensure that the delegated AAIT, while conducting the investigation, shall allow advisers and assisting accredited representatives to participate in an investigation to the extent necessary to make the representatives' participation effective.
  - d) The AAIG-BD shall ensure that the delegated AAIT, while conducting the investigation, may invite to participate in the investigation representatives from the following:
    1. The air operator, when neither the State of Registry nor the State of the Operator appoints an accredited representative;
    2. The organizations responsible for the type design and the final assembly of the aircraft, when neither the State of Design nor the State of Manufacture appoints accredited representatives.
  - e) The AAIG-BD shall establish and implement procedures to ensure that it appoints an accredited representative, in particular when specifically requested to do so by the State conducting an investigation (for an accident to an aircraft of a maximum mass of over 2 250 kg). The AAIG-BD shall ensure that records of such appointments are systematically maintained and stored.
  - f) The AAIG-BD shall establish and implement procedures to ensure that it appoints advisers proposed, as applicable, by the operator or by the organizations responsible for the type design and the final assembly of the aircraft. The AAIG-BD shall ensure that records of such appointments are systematically maintained and stored.
  - g) In case any or more citizens of Bangladesh suffer fatalities or serious injuries due to aircraft accident taking place in another State, the AAIG-BD shall ensure that it has established and implemented procedures to send an expert to the State of Occurrence. Such procedures issued should address where the expert will come from, by whom he/she will be accompanied, with what mandate and guidance, etc. The AAIG-BD shall ensure that records of such appointments are systematically maintained and stored.





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31. INFORMATION REGARDING AIRCRAFT, FLIGHT CREW AND PASSENGERS

- a) The AAIG-BD shall ensure to provide any State conducting an investigation any relevant information regarding the aircraft and flight crew involved in the aircraft accident or serious incident as soon as possible. While performing so, the AAIG-BD shall ensure that copies of relevant correspondence on the information provided are systematically maintained and recorded.
- b) The AAIG-BD shall ensure to develop guidance material in order to establish and implement that, when needed, autopsy examinations are carried out for Flight Crew, Passengers and/or any other persons involved with the accident. In the event of a fatal accident, the AAIG-BD shall ensure that arrangements have been made for complete autopsy examination of fatally injured flight crew and subject to the particular circumstances, of fatally injured passengers and cabin attendants, by a pathologist, preferably experienced in accident investigation. The examinations shall be expeditious and complete.
- c) The AAIG-BD shall establish and implement guidance material to ensure that, when needed, expeditious medical examination of the flight crew, cabin attendants, passengers and involved aviation personnel is conducted by a physician, preferably experienced in accident investigation. The AAIG-BD shall also ensure that such examinations should be expeditious and may also determine whether the level of physical and psychological fitness of flight crew and other personnel directly involved in the occurrence is sufficient for them to contribute to the investigation.
- d) The AAIG-BD shall establish and implement procedures to ensure that relevant and timely information on the progress of the investigation will be provided to the families and accident survivors.

32. INFORMATION ON DANGEROUS GOODS

The AAIG-BD shall ensure that Bangladesh, as the State of the Operator, it ( AAIG-BD) will provide any State conducting an investigation with the information containing the details of dangerous goods on board the aircraft with a minimum of delay and by the most suitable and quickest means available. The AAIG-BD will also ensure that all these information are kept in Record in a systematic way.



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33. AIRCRAFT AND EVIDENCE OF WRECKAGE

- a) The AAIG-BD shall ensure that the AAIT shall be provided with appropriate Guidance Material in order to ensure that the preservation of all evidences of a transitory nature of the wreckage shall be kept and recorded in the investigation report taken through photography or other appropriate means. To this effect the Guidance Material should provide instructions to AAIT that all such evidences shall be preserved for onward hand over to the AAIG-BD for long-term preservation and keeping records.
- b) The AAIG-BD shall ensure by providing appropriate instructions to all concerned in reference to the Primary Aviation Legislation and by developing appropriate procedures with a view to ensuring the protection of the aircraft or wreckage as well as the accident site against access by unauthorized persons, pilfering or deterioration.
- c) The AAIG-BD shall establish and implement guidance material to ensure that, when needed, examination or testing of aircraft parts or components will be carried out in a thorough manner, if required through supervising examinations and tests.

34. COMMUNICATIONS, RECORDINGS AND DOCUMENTS

Coherent with the Primary Civil Aviation Legislation of Bangladesh the AAIG-BD shall establish and implement to ensure that in the event of an accident or serious incident, all air traffic services (ATS) communication recordings and documents associated with the flight are secured and placed in safe keeping either by the AAIG-BD Team itself or the assigned AAIT. To this effect the Guidance Material should provide instructions to AAIT that all such evidences shall be preserved for onward hand over to the AAIG-BD for long-term preservation and keeping records.

35. COORDINATION OF ACTIVITIES

- a) The AAIG-BD shall establish and implement means to ensure that distinct separation shall be established between the following two entities in conducting investigation. These two entities are:
  - 1. Investigations shall be conducted under Annex 13 at the accident site by the investigators;
  - 2. Investigations shall be conducted on judicial matters by the judicial authority.



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- b) The AAIG-BD shall ensure that effective implementation of Legislation/Regulations and/or formal arrangements, such as the Memorandums of Understanding (MOUs) have been established regarding coordination of activities related to securing and custody of evidences, identification of victims, flight recorder read-outs, examinations, tests, etc.
- c) The AAIG-BD shall ensure that it entitles the participation of experts of States which have special interest in an accident by virtue of fatalities or serious injuries to its citizens in accordance with Annex 13. In this regard the AAIG-BD shall ensure that States which have special interest in an accident by virtue of fatalities or serious injuries to its citizens should be entitled to:
1. Visit the scene of the accident;
  2. Have access to the relevant factual information which is approved for public release;
  3. Participate in the identification of the victims;
  4. Assist in questioning surviving passengers who are citizens of the State; and,
  5. Receive a copy of the final report of the investigation.
- d) The AAIG-BD shall ensure that whenever Bangladesh participates in an aircraft accident or serious incident investigation conducted by another State, shall establish and implement procedures to ensure that it provides the State conducting the investigation with all the information and elements required throughout the investigation process. The information and elements required in the procedure shall contain at least the following:
1. In all cases, all relevant information requested by that State;
  2. In all cases, information on an aircraft which prior to the occurrence of an accident or incident has used or normally would use the State's facilities or services;
  3. As State of Registry or State of the Operator, flight recorder records or the associated flight recorders when an aircraft involved in an accident or serious incident lands in a State other than the State of Occurrence; and,
  4. As State of Registry or State of the Operator, information on organizations whose activities may have directly or indirectly influenced the operation of the aircraft.





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36. FLIGHT RECORDERS AND COCKPIT VOICE RECORDER

- a) The AAIG-BD shall establish and implement procedures to ensure the timely recovery and read-out of the flight recorders following an aircraft serious incident and accident. The procedure shall include the following:
  - 1. The process for the recovery and handling of recorders, including damaged recorders and recorders recovered from water;
  - 2. That the recovery and/or read-out are not impeded or delayed for administrative reasons, e.g. senior management or IIC may feel that it is necessary for the IIC to be present at all investigative activities and therefore delay recorder read-out until on-site documentation is complete;
  - 3. Any Judicial reasons i.e. apprehensions about chain of custody or the need to delay readout until judicial authorities determine their role and plan;
  - 4. That any financial reasons e.g. inability of staff to initiate readout without high level travel or funding approval.
- b) The AAIG-BD shall also ensure that for underwater recovery it establishes and implements a clear plan for initiating, funding, and overseeing underwater recovery and how these aspects will be conducted.
- c) The AAIG-BD shall establish and implement procedures to ensure that it complies with Attachment D to Annex 13 regarding the choice of the read out facility and the participation of the State of Design/Manufacture and the State of the Operator in the flight recorder read out and analysis activities. The AAIG-BD shall also ensure that the procedures cover not only the choice of the read out facility, but also the mode of participation of the State of Design/Manufacture and the State of the Operator in the flight recorder read out and analysis activities.

37. INVESTIGATION AND VOLUNTARY REPORTING

- a) The AAIG-BD shall establish the requirement that all final reports from aircraft accidents and serious incidents investigations be completed and made publicly available. To implement the system the final report, so made, shall be hoisted in the public website and distributed to all concerned organizations and agencies as applicable.
- b) The AAIG-BD shall establish the requirement that the final reports will be made in different formats depending on the types of occurrences. However, the final report shall comply with the provisions contained in the Appendix to Annex 13. The AAIG-BD shall develop a standard procedure to depict the contents of the final report in its own format that will be made available to public.



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- c) The AAIG-BD shall establish and implement procedures to ensure that the final report is completed as soon as possible and that, if the report is not made available within 12 months, an interim statement is made publicly available on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues raised. The AAIG-BD shall advise through the Memorandum issued to the AAIT to complete the final report within 12 months and will continue to monitor the progress on the investigation with a view to ensuring that the AAIT meets the target date or in case of valid cause, the AAIT makes available the interim report to the AAIG-BD.
- d) The AAIG-BD shall establish and implement procedures to ensure that the consultation on the draft final report with all States which participated in the investigation, inviting their substantiated comments on the report within sixty days from the date of the transmittal letter. The AAIG-BD shall also ensure that it forwards the draft final report to all accredited representatives and that the response time allowed by the AAIG-BD is at least 60 days.
- e) The AAIG-BD shall establish procedures for forwarding the ADREP report to ICAO and for the completion and release of the final report, including the preparation of safety recommendations. The AAIG-BD shall also implement procedures to ensure that a copy of the draft final report is sent for comments to the following:
  - 1. To the air operator involved;
  - 2. The State of Design;
  - 3. The State of Manufacture to the organizations responsible for the type design and the final assembly of the aircraft; and,
  - 4. The associated States will be informed of the transmission of the draft final report to the operator/the organization responsible for the type design and the final assembly of the aircraft.
- f) The AAIG-BD shall systematically keep copies of all these correspondences in record.
- g) The AAIG-BD shall establish and implement procedures to ensure that it will either amend the draft final report to include the substance of the comments received or, if desired by the State which provided the comments, append the comments to the final report.
- h) The AAIG-BD shall establish and implement procedures to ensure that it sends the final report to all States involved, including any State having suffered fatalities or serious injuries to its citizens and any State which provided relevant information, significant facilities or experts.



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- i) The AAIG-BD shall establish and implement procedures to ensure that it sends the final report to ICAO for all investigated accidents and incidents when the aircraft is of a mass of over 5 700 kg.
- j) The AAIG-BD shall establish and implement procedures to prevent from circulation, publication, or giving unauthorized access to a draft report or any part thereof, or any documents obtained during an investigation without the express consent of the State which conducted the investigation, unless such reports or documents have already been published or released by that latter State.
- k) The AAIG-BD shall establish and implement procedures to ensure that it sends preliminary reports, when the aircraft involved in an accident is of a maximum mass of over 2 250 kg, to all involved States and ICAO. The AAIG-BD shall store and maintain copies of such disseminated reports and distribution list.
- l) The AAIG-BD shall ensure that all preliminary reports are submitted in English. The AAIG-BD shall also ensure copies of submitted preliminary reports are documented and stored.
- m) The AAIG-BD shall establish and implement procedures to ensure that it sends accident data reports involving aircraft of a maximum mass of over 2 250 kg to ICAO, as soon as practicable after the investigation. The AAIG-BD shall systemically document the copies of dispatched accident data reports and dispatch dates.
- n) The AAIG-BD shall develop and implement procedures to ensure that it sends incident data reports to ICAO for investigations into incidents to aircraft of a maximum mass of over 5 700 kg. The AAIG-BD shall systemically document the copies of dispatched accident data reports and dispatch dates.
- o) The requirement and procedures are in existence within the regulatory requirements of CAAB. However, the AAIG-BD will share the data on yearly basis to identify any potential safety deficiency.
- p) The AAIG-BD shall establish and implement through the necessary procedures and guidance to the industry a voluntary incident reporting system, managed at the State level, to facilitate the collection of information that may not be captured by a mandatory incident reporting system. The AAIG-BD shall systemically document the copies of receipt reports with dates and coordinate with different agencies towards minimizing actual or potential safety deficiencies.
- q) The AAIG-BD shall develop and implement procedures to ensure that its voluntary incident reporting system is non-punitive and that the sources of the information are protected. In this regard the AAIG-BD shall ensure that its self-managed voluntary occurrence reporting system is in place.



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- r) The AAIG-BD shall establish 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. The AAIG-BD shall review the database information on a regular basis to keep track on the actual or potential safety deficiencies with a view to determining any preventive actions required.
- s) The AAIG-BD shall ensure that the database created is in a standardized format to facilitate data exchange. The AAIG-BD shall develop such format for storing data and keeping records. The format so designed and developed should be compatible with ADREP/European Co-ordination Centre for Aviation Incident Reporting Systems (ECCAIRS).
- t) The AAIG-BD shall ensure that Bangladesh as a State authority responsible for the implementation of the SSP shall have access to the accident and incident database maintained by the AAIG-BD to support their safety responsibilities. The AAIG-BD shall also ensure that the information contained about the accident/incident reports in the database will be analyzed on a regular basis to determine any required preventive actions. To achieve the above, the AAIG-BD shall engage through an agreement in the form of 'MOU' with ASRTM of CAAB for exchange of information and data.

38. SAFETY RECOMMENDATIONS

- a) The AAIG-BD shall establish and implement guidelines regarding the development and issuance of safety recommendations to the appropriate authorities, including those in other States, at any stage of an accident or incident investigation. The AAIG-BD will note that such safety recommendations may result from diverse sources, including safety studies. The AAIG-BD will keep appropriate documentation of the safety recommendations thus disseminated to all agencies.
- b) The AAIG-BD shall establish and implement procedures to ensure that it addresses, when appropriate, any safety recommendations arising from its investigations to accident investigation authorities in other State(s) concerned and, when ICAO documents are involved, to ICAO.
- c) The AAIG-BD shall establish and implement procedures to ensure the following:
  - 1. Monitor the progress of any action taken in response to these safety recommendations; and,
  - 2. That it informs the proposing State within 90 days of the preventive action taken or under consideration or the reasons why no action will be taken.
- d) The AAIG-BD will keep appropriate documentation of the safety recommendations thus disseminated to all agencies.

END



PART-D  
POLICY GUIDANCE  
ON AIRCRAFT ACCIDENT INVESTIGATION



CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

PART-D  
POLICY AND GUIDANCE

AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



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## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### PART-D POLICY GUIDANCE

#### APPROVAL AND UPDATING OF THIS PART

1. Information contained in Part-D portion of this Compendium is an internal document of the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD). It contains policies relating to the responsibilities and functions of the AAIG-BD for the purpose of guiding the operations and professional development of the AAIG-BD.
2. Except for material which has been approved for public distribution, the contents of this Part are not intended to be communicated to persons outside the AAIG-BD without the consent of the Head of AAIG-BD.
3. The contents of this Part are not regulatory in nature and is not a binding statement of policy, and is not all inclusive. Deviation from the guidance offered in this Part may at times be necessary to meet the specific needs of an investigation.
8. The contents of this Policy Guidance will be updated or revised as and when necessary (e.g. to comply with new ICAO requirements, to address feedback from operational experience and audits, and make corrections and editorial improvement). The Investigators of Accidents and AAIG-BD panel are encouraged to contribute ideas for improving the contents of this Part.
9. The revision may be made by Head of AAIG-BD himself. He may also assign an officer such as a Member Secretary AAIG-BD, to prepare the draft of the revision, in which case he will review and submit the revision for approval by the Head of AAIG-BD.
10. Upon the completion of the revision, Head of AAIG-BD or the Member Secretary will make notes in the file CAAB/CS/32/AAIG-BD/01/MASTER.to:
  - a) Record the completion of the revision exercise; and,
  - b) Document the changes to be made to the Policy Guidance.
11. A distribution list of the Soft/hardcopies of the Policy Guidance shall be maintained with AAIG-BD.
12. For amendment of the hardcopies, Head of AAIG-BD or the Member Secretary AAIG-BD will prepare an amendment instruction and will arrange for the amendment instruction and the related new/amended pages to be distributed and inserted into the Policy Guidance.
13. For the Soft/hardcopies of the Policy Guidance, Head of AAIG-BD or the Member Secretary AAIG-BD will arrange for an updated version and shall distribute as applicable.
14. This Policy Guidance on Aircraft Accident Investigation is hereby approved.

  
Capt. Salahuddin M Rahmatullah  
Head of AAIG-BD  
30 June 2016



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AMENDMENTS







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## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### 1. ORGANISATION OF INVESTIGATION

#### 1.1 Aircraft Accident Investigation Group of Bangladesh (AAIG-BD)

- a) Aircraft accident and incident investigation in Bangladesh is carried out by the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD). Either by the panel staff or any other designated investigator or group of investigators known as the Aircraft Accident Investigation Team (AAIT). The AAIG-BD is a specialized and designated Group of the Civil Aviation Authority of Bangladesh, duly designated by Chairman to function independently.
- b) The Head of the AAIG-BD is responsible to the Chairman CAAB for the management of the AAIG-BD.
- c) The AAIG-BD has been designated by the Chairman CAAB under the provision the Rule 3 of CAR 1984 empowered by the Government to conduct investigation independently of the regulatory and judicial authorities as well as of the aviation service providers in Bangladesh.
- d) The key functions of the AAIG-BD are:
  - 1. To implement the Standards and Recommended Practices contained in Annex 13 to the Convention on International Civil Aviation (Chicago Convention);
  - 2. To conduct independent and objective investigation of accidents and incidents in accordance with the Bangladesh law and international best practices;
  - 3. To promote aviation safety through the investigation of accidents and incidents and the identification of safety deficiencies so that accidents may be avoided in future;
  - 4. To administer a voluntary and non-punitive confidential aviation incident reporting system;
  - 5. To educate the industry and the public on ICAO's philosophy of investigation;
  - 6. To maintain the confidence of the aviation industry and the public in aviation safety through the investigation of accident and serious incidents.

#### 1.2 Investigation of Accidents and Serious Incidents



## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- a) The AAIG-BD will investigate accidents pursuant to Article 26 of the Chicago Convention.
- b) While Article 26 of the Chicago Convention refers to investigation of accident, Annex 13 goes beyond investigation of accidents and prescribes Standards and Recommended Practices for the investigation of incidents as well, in particular serious incidents.

Note: Article 26 of the Chicago Convention states that "In the event of an accident to an aircraft of a contracting State occurring in the territory of another contracting State, and involving death or serious injury, or indicating serious technical defect in the aircraft or air navigation facilities, the State in which the accident occurs will institute an inquiry into the circumstances of the accident, in accordance, so far as its law permit, with the procedure which may be recommended by the International Civil Aviation Organization. The State in which the aircraft is registered shall be given the opportunity to appoint observers to be present at the inquiry and the State holding the inquiry shall communicate the report and findings in the matter to that State."

- c) Thus, the AAIG-BD will also investigate serious incidents as recommended by Annex 13 and, where there will be safety lessons to be drawn, incidents that are not classified as serious incidents.

Note: There may be instances where it is not clear as to whether an incident should be classified as a serious incident. Even if such incidents are not classified as serious incidents and if they are likely to offer safety lessons, the AAIG-BD will initiate an investigation.

### 1.3 Financial Framework for the AAIG-BD

- a) AAIG-BD shall determine on a yearly basis the budget needed for all its overall functioning, including cost of training, to be provided by CAAB.
- b) Contingency expenditure which may arise from a major accident investigation, whose cost is unpredictable, shall be borne by CAAB on ad-hoc basis. Additionally, the Head of AAIG-BD shall try and liaise with the regional AIG under the code of conduct for further assistance.

### 1.4 Staff and Investigators of AAIG-BD

- a) The AAIG-BD has been approved for Part-time staff strength of 07 Investigators from the AAIG-BD panel, 10 Investigators from CAAB Inspectorate and 02 Administrative and Finance support staff from CAAB.

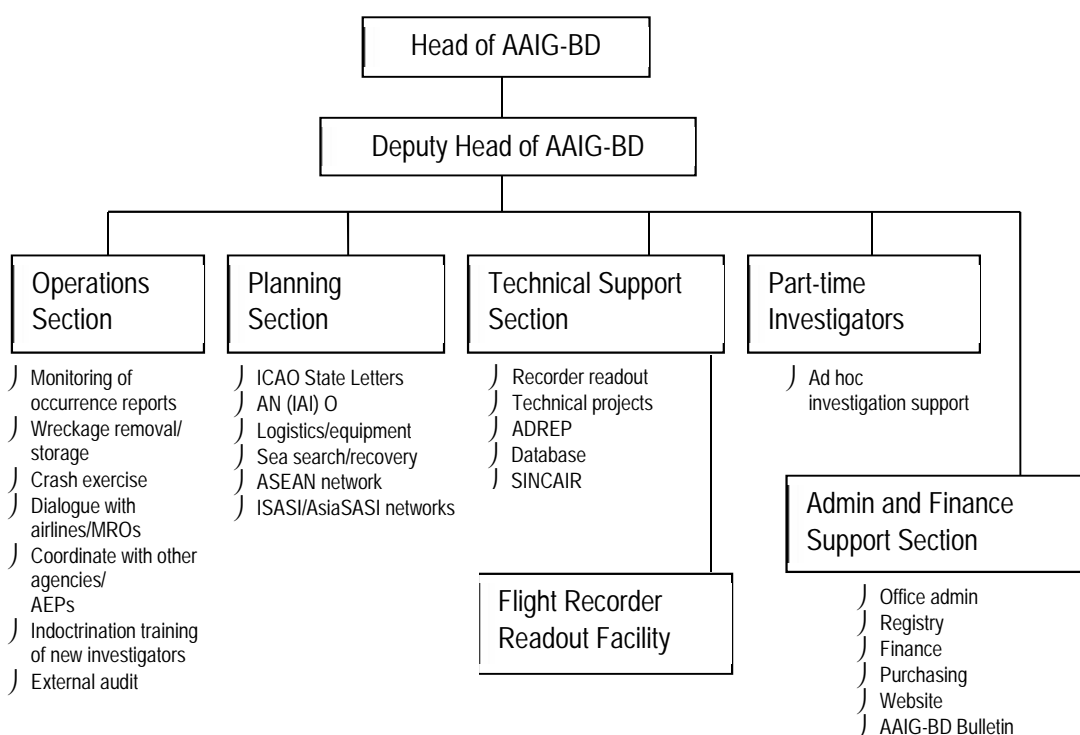


## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- b) The Part-time investigators are appointed by the Chairman CAAB. One of them is appointed as the Head of AAIG-BD.
- c) The Organization Chart of the AAIG-BD is in Para 1.5. The duty statements of the Part-time staff are in file CAAB/CS/32/AAIG-BD/01/MASTER.
- d) The AAIG-BD will seek the approval of Chairman CAAB for any staff strength increase.
- e) The Part-time investigators are complemented by volunteer specialists who are also appointed by the AAIG-BD.

### 1.5 Organization Chart of AAIG-BD



Note: The allocation of tasks for the Part-time AAIG-BD investigators is in File CAAB/CS/32/AAIG-BD/01/MASTER.

### 1.6 Mission of the AAIG-BD





## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- a) The Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) is the Aircraft investigation authority in Bangladesh responsible to the Chairman CAAB who has been mandated by the Ministry of Civil Aviation and Tourism through an Official Gazette for the investigation of aircraft accidents and serious incidents to Bangladeshi registered aircraft involves into such occurrence within or outside Bangladesh and foreign registered civil aircraft involves into such occurrence in Bangladesh. Hence, the AAIG-BD also participates in overseas investigations of accidents and serious incidents involving Bangladesh aircraft or aircraft operated by a Bangladeshi air operator.
- b) The mission of the AAIG-BD is to promote aviation safety through the conduct of independent and objective investigations into aircraft accidents and incidents consistent with the Convention on International Civil Aviation (Chicago Convention).
- c) The AAIG-BD will conduct the investigations in accordance with the Bangladesh Civil Aviation Ordinance 1960 of Bangladesh, Civil Aviation Rules 1984, the relevant Air Navigation Orders (ANOs) and Annex 13 to the Chicago Convention, which governs how Contracting States of the International Civil Aviation Organisation (ICAO) conduct such investigations. The AAIG-BD will undertake investigations without fear or favour.
- d) The AAIG-BD contributes to aviation safety by independently investigating and analysing the circumstances leading to the occurrences of accidents or incidents and by identifying the safety issues and making safety recommendations to address these safety issues. AAIG-BD's key product is information and knowledge, imparted to individuals, regulators, aerospace industries and aviation service providers to assist in ensuring that unsafe actions or conditions are not repeated or allowed to persist. The emphasis of AAIG-BD's investigations is on learning to improve future safety and not on apportioning or establishing blame.
- e) Accident and incident investigation is one of the elements of the Bangladesh State Safety Programme (SSP) which is an integrated set of regulations and activities of Bangladesh aimed at improving aviation safety. The operations of the AAIG-BD are in line with the requirements of Attachment F to Annex 13, introduced by Amendment 12 to Annex 13, which requires the following:

Quote: "The State has established an independent accident and incident investigation process, the sole objective of which is the prevention of accidents and incidents, and not the apportioning of blame or liability. Such investigations are in support of the management of safety in the State. In the operation of the SSP, the State maintains the independence of the accident and incident investigation organization from other State aviation organizations." Unquote.



## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- f) Through fulfilling Bangladesh's investigation obligations under Article 26 of and Annex 13 to the Chicago Convention, the AAIG-BD contributes towards the maintenance of the confidence of the aviation industry and the public.

### 1.7 Objective of Investigation of AAIG-BD

- a) In accordance with paragraph 3.1 of Annex 13, the sole objective of an aircraft accident or incident investigation is to prevent future accidents and incidents. The purpose of an investigation is not to apportion blame or liability. This objective of ICAO has been reiterated in Para (2) (f) of CAR 242 and Section 13.8 of Air Navigation Order.
- b) The emphasis of ICAO's objective statement is on remedial action. An investigation carried out under Para (2) (f) of CAR 242 and under the provisions of Annex 13 is separate from any judicial or administrative proceedings to apportion blame or liability.
- c) The extent of the investigation and the procedure to be followed in carrying out an investigation will depend on the lessons that can be expected to be drawn from the investigation for the improvement of safety.
- d) An aircraft accident or incident suggests hazards or deficiencies in the aviation system. Under the AAIG-BD, investigations will be conducted in an attempt to identify all immediate and underlying systemic causes or contributing factors of an accident or incident. The investigation will also determine the facts, conditions and circumstances pertaining to the survival or non-survival of the occupants of the aircraft.
- e) At the end or even in the course of the investigation, appropriate safety actions will be recommended, aiming at avoiding the hazards and eliminating the deficiencies in the aviation system, as well as improving the crashworthiness of the aircraft, thus preventing or minimizing injuries to aircraft occupants in future accidents.

### 1.8 Investigation by other Authorities in Bangladesh

- a) Investigation by the AAIG-BD for the purposes of fulfilling Bangladesh's obligation under Article 26 of the Chicago Convention and Annex 13 to the Chicago Convention does not preclude other competent authorities in Bangladesh, e.g. Civil Aviation Authority of Bangladesh, Bangladesh Police, Bangladesh Coroner, Judicial authorities, affected air operators from carrying out their own investigations separately for their own purposes as required and in accordance with the relevant legislation.



## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- b) To the greatest extent possible, the AAIG-BD will coordinate and cooperate with the competent authorities that conduct a parallel investigation. For example, the AAIG-BD may need information derived from the identification of victims by the Police or from the pathological examination of the victims by the Coroner, and the other investigating authorities may need information derived by the AAIG-BD from the flight data recorder data.

## 2. SCOPE OF INVESTIGATION OF AAIG-BD

### 2.1 Involvement in Investigation

The AAIG-BD will be involved in a civil aircraft accident or serious incident investigation in the following circumstances:

- a) where the accident or serious incident occurs in Bangladesh (irrespective of the nationality of the aircraft);
- b) where the accident or serious incident occurs in another Contracting State or non-Contracting State and involves a Bangladesh aircraft or an aircraft operated by a Bangladesh operator, and the State involved is conducting an investigation of the accident or serious incident and Bangladesh is participating in the investigation;
- c) where the accident or serious incident occurs in a non-Contracting State and involves a Bangladesh aircraft or an aircraft operated by a Bangladesh operator, and the non-Contracting State involved does not intend to carry out an investigation of the accident or serious incident in accordance with Annex 13 and Bangladesh is instituting an investigation;
- d) where the accident or serious incident involves a Bangladesh aircraft or an aircraft operated by a Bangladesh operator and the investigation has been delegated to Bangladesh by another State by mutual arrangement and consent;
- e) where the accident or serious incident involves a Bangladesh aircraft and occurs in a location which cannot be definitely established as being in the territory of any State and Bangladesh is instituting an investigation;
- f) where Bangladesh is assisting another State or non-Contracting State in the investigation of an accident or serious incident that does not involve a Bangladesh aircraft or an aircraft operated by a Bangladesh operator.



## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- g) The Head of AAIG-BD may, when he expects to draw air safety lessons from it, also cause an investigation to be carried out into an incident, other than a serious incident, which occurs:
1. in Bangladesh; or
  2. outside Bangladesh involving a Bangladesh's aircraft or an aircraft operated by a Bangladesh's operator.
- h) The Head of AAIG-BD may, with the approval of Chairman CAAB, delegate the investigation of an accident or serious incident to another State by mutual arrangement and consent. In such a case, the Head of AAIG-BD will facilitate to the best of its ability the investigation carried out by that State.
- i) The AAIG-BD will also be involved in the investigation of a military aircraft accident or serious incident that occurs during a civilian organized flying display (including any rehearsal for such event) that takes place at an aerodrome or premises other than an aerodrome or premises of the State Armed Forces.

### 2.2 Investigation Resources

- a) As the air transport industry and the aircraft itself have become more sophisticated, the investigation of a major aircraft accident can be expected to be very complex and may need an AAIG-BD designated aircraft accident investigation team (AAIT) of significant size.
- b) However, in view of the relatively small number of accidents and serious incidents that the AAIG-BD may undertake to investigate every year, the AAIG-BD's policy is to supplement the relatively small core of Part-time AAIG-BD investigators with other Part-time investigators, rather than have a big standing staff.
- c) Apart from the part-time investigators, the AAIG-BD will also make use of other external investigation expertise as and when needed, e.g. metallurgists from the academia and research institutes, human factors consultants, investigators from foreign investigation authorities and, where no conflict of interest is likely, experts from the aviation regulatory authority and service providers.



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### 2.3 Support from other Agencies

- a) The AAIG-BD also needs other external agencies to provide engineering and logistics support to its investigation, e.g. Police to secure accident site, aircraft maintenance companies to help remove flight recorders and collect fuel/oil samples, ATC to provide communication transcripts and radar and meteorological data, Bangladesh's Air Force to perform aerial survey and so on.
- b) The types of support to be rendered to the AAIG-BD by the external agencies are contained in the Airport Emergency Plans for all Domestic and International Airports of Bangladesh.

## 3. INVESTIGATORS OF ACCIDENTS

### 3.1 Appointment of AAIG-BD and AAIT

Chairman CAAB in exercise of his power conferred by Section 7 of the Ordinance and thereafter Rule 3 of CAR '84 has appointed the AAIG-BD. For the purpose of carrying out investigations into accidents, serious incidents and incidents the Head of AAIG-BD, in exercise of his delegated power conferred by Chairman CAAB in written form, will form from a group of experienced investigators, an Aircraft Accident Investigation Team (AAIT) to investigate into Accidents. Head of AAIG-BD will appoint one investigator out of the AAIT as Investigator in Charge (IIC).

- a) The Investigators from the AAIG-BD acts as full-time coordinators soon after an accident, serious incident or similar occurrence takes place that needs immediate formation of the AAIT to conduct investigation. The Head of AAIG-BD appoints either himself as IIC or any other member from the AAIG-BD as IIC or Member of AAIT and at the same time appoints from the pool of investigators to form the AAIT.
- b) AAIG-BD investigators is also supplemented by Investigators of Accidents drawn from specialists from within the CAAB Organization, other government agencies, academia, research and specialized organizations (e.g. Air Force, Defence Science and Technology Agency, Defence Science Organization, Aeromedical Centre, University etc.).
- c) If assessed suitable and feasible, a further group of Investigators of Accidents are appointed by the Head of AAIG-BD from the ranks of the Air Force for the purpose of assisting the AAIG-BD in dealing with any accident or incident that occurs to military aircraft during a civilian organized flying display in Bangladesh that is held at an aerodrome or premises other than an aerodrome or premises controlled by the Bangladesh's Armed Forces.



## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- d) The list of the AAIG-BD as well as the Investigators of Accidents appointed by the Head of AAIG-BD is notified to appropriate personnel, officials/agencies and, from time to time, to the public for general information through the CAAB website.

### 4. IMPLEMENTATION OF ANNEX 13 STANDARDS

- a) The specifications in Annex 13 apply to investigation activities in respect of accidents and incidents wherever they occurred. It is the AAIG-BD's policy to adhere, as far as possible in its investigation of accidents and incidents, to all investigation related Standards contained in Annex 13. The AAIG-BD will also endeavor to comply with the Recommended Practices spelt out in Annex 13.
- b) Implementation of the Annex 13 Standards and Recommended Practices will be through the AAIG-BD policies and procedures.

#### Notes:

1. In Bangladesh's context, certain provisions in Chapter 8 of Annex 13 are not necessarily the areas of responsibility of the AAIG-BD. For example, as regards paragraph 8.1 of Annex 13, the Civil Aviation Authority of Bangladesh is responsible for the establishment and maintenance of a mandatory incident reporting system.
2. Consistent with paragraph 5.8 of ICAO Circular (No. 285-AN/166 "Guidance on Assistance to Aircraft Accident Victims and Their Families"), the AAIG-BD is not the authority responsible for provision of assistance to aircraft accident victims and their families. However, the AAIG-BD will provide relevant and timely information (directly or indirectly) to the families and the accident survivors as and when needed.
3. If any Annex 13 Standard cannot be complied with, the AAIG-BD will highlight it to the Chairman CAAB and arrange for a notification of difference to ICAO.
4. ICAO does not require differences between Annex 13 Recommended Practices and our investigation legislation/policies/practices to be notified to ICAO. Nevertheless, the AAIG-BD will inform ICAO if it deems that other States' awareness of such differences is important for the conduct of accident or incident investigation.





## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### 5. ICAO'S ANNEX AMENDMENTS WILL MENTION ADOPTION DATE, EFFECTIVE DATE AND APPLICABLE DATE. THEIR MEANINGS ARE AS FOLLOWS:

- a) The adoption date is the date that ICAO Council adopts the amendment. ICAO will send out a State Letter to inform States of the adoption and invite States to register their disapproval, if any. If a significant number of States registers their disapproval, ICAO may delay the implementation of the amendment in order to further study the issue. A notification of disapproval does not constitute a notification of differences.
- b) The effective date is the date that the amendment becomes effective, even though the amendment may not have been reflected in individual States' national legislation.
- c) The applicable date is the date that individual States' national legislation would have to reflect the latest ICAO requirements. States that do not wish to implement any requirement introduced by the amendment must file a difference with ICAO by this date. ICAO will publish the State's differences as a supplement to the Annex concerned.

### 6. REVIEW OF AMENDMENTS TO THE ANNEXE 13

- a) The Civil Aviation Authority of Bangladesh (CAA) is the agency in Bangladesh, designated to communicate with ICAO on official matters on behalf of Bangladesh. As such, the AAIG-BD will receive through CAA the official ICAO communications concerning Annex 13 amendment.
- b) On receipt of any ICAO communications concerning Annex 13 amendment, the Head of the AAIG-BD will evaluate the information either by himself or by an AAIG-BD staff assigned by him.
- c) Where necessary, the AAIG-BD will discuss with the Chairman CAAB regarding Bangladesh's position on the Annex 13 amendment.
- d) The AAIG-BD will communicate Bangladesh's response to any Annex 13 amendment proposal to ICAO through CAAB.

### 7. NOTIFYING ICAO OF DIFFERENCES WITH ANNEX 13 STANDARDS

When an amendment to Annex 13 has been adopted by ICAO and there are standards that Bangladesh cannot comply with, the AAIG-BD will arrange with CAAB to notify ICAO of the differences between Bangladesh's regulations and practices and Annex 13.





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### 8. NOTIFYING ICAO OF DIFFERENCES WITH OTHER ANNEXES

While the AAIG-BD is not the agency responsible for reviewing the Annex amendment proposals in respect of the Annexes other than Annex 13, it may be asked for its view by other agencies regarding these amendment proposals.

### 9. AMENDMENT TO LEGISLATION, POLICIES OR PROCEDURES

- a) For Annex 13 amendment that is adopted by ICAO and with which Bangladesh can comply, the AAIG-BD will amend the AAIG-BD Policy Manual, AAIG-BD Investigation Training Manual, AAIG-BD Accident Investigation Handbook or any document as applicable accordingly or initiate appropriate action for the amendment of the Investigation Legislation.

### 10. RECRUITMENT AND METHODOLOGY OF RETENTION OF AAIG-BD INVESTIGATORS

- a) AAIG-BD itself, as well as the AAIT formatted by the AAIG-BD investigators are responsible for carrying out accident/incident investigations. The investigation tasks include gathering, recording and analyzing all available information on accidents and incidents, identifying safety issues, making safety recommendations, determining the causes or contributing factors, and completion of investigation reports. The investigators' work scope will also include formulation and implementation of investigation related policies, administration of a confidential aviation incident reporting system and updating of investigation legislation.
- b) The AAIG-BD normally looks for investigators from the pool of people who possess adequate professional qualifications in an appropriate discipline (e.g. a degree in aeronautical/mechanical/electrical/electronic engineering, a pilot, licensed aircraft maintenance engineer, or air traffic controller qualification) and who have aviation related experience. Preference will be given to those with relevant experience at management or supervisory level and in particular with aircraft accident/incident investigation experience.
- c) The desired qualities of an investigator are: inquisitiveness, logical mind, objectivity, dedication, diligence, patience, perseverance, good interpersonal and communications skills, good leadership and supervisory skills, teamwork, and commitment to excellence.
- d) Remuneration for the AAIG-BD and AAIT investigators will be commensurate with the qualifications and relevant experience. Additional allowances will be paid for such qualification as an aircraft maintenance engineer license, an air transport pilot license or commercial pilot license and any other ascertained by the Head of AAIG-BD.
- e) In all cases, the investigators of AAIG-BD as well as any investigator designated by the AAIG-BD shall be adequately remunerated together with the following with a view to ensuring that



## PART-D POLICY GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



they can be comfortably retained in the AAIG-BD group or in their designated positions to perform the investigation tasks satisfactorily:

1. Salary structure commensurate with that of the industry for being a permanent investigating officials of the AAIG-BD and/or the designated investigator engaged by the Head of the AAIG-BD;
  2. Festival allowances, provident funds and gratuity benefits as per equivalent industry officials;
  3. Annual and casual leave provisions;
  4. All expenses to be incurred during the process of investigation at home or abroad;
  5. Special allowances for specialized category of investigation, such as a) Analysis of FDR/DFDR, b) Engine and parts examinations and analysis, c) Airframe parts examinations and analysis and d) Alike any other examinations and analysis etc.
- f) The Head of AAIG-BD will file the AAIG or AAIT investigator vacancies to the Chairman CAAB. Requirement for such demand will be communicated and a recruitment advertisement will be placed in the local media. The Head of AAIG-BD will review all applications to join AAIG-BD or the pool of investigators and will shortlist candidates for a first-round interview by an AAIG-BD panel. Selected candidates will undergo a final written test and interview by the AAIG-BD. The AAIG-BD, with a view to establishing the mechanism to ensure that the accident investigation authority has sufficient personnel to meet its national and international obligations related to aircraft accident investigations, will adopt the following policy:
1. Identify staff needs, wherein the Head of AAIG-BD will verify the actual number of aircraft accident investigators employed or available and number of investigations conducted under the AAIG-BD's responsibility on three yearly basis;
  2. Establish the required posts initially and on an on-going basis;
  3. Fill the required posts initially and on an on-going basis;
  4. Review AAIG-BD's ability to accomplish all required activities including: a). Development of regulations, policies & procedures and other guidance material, b). Develop Training Programmes and implement the same including maintenance of Training Records, c). Reporting and analyses of safety deficiencies and, d) Any other Adminstrating duties to be performed.



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### 11. PART-TIME INVESTIGATORS

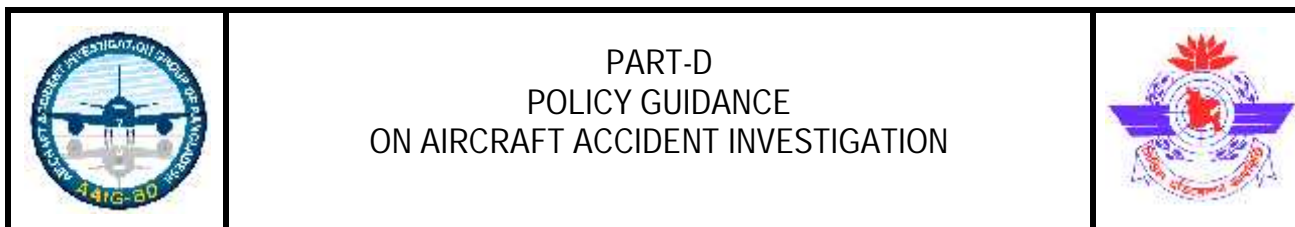
- a) As the air transport industry and the aircraft itself have become more sophisticated, the investigation of a major aircraft accident can be expected to be complex and may need an AAIG-BD investigation team of significant size.
- b) However, in view of the relatively small number of accidents and serious incidents that the AAIG-BD may be called upon to investigate every year, the AAIG-BD's policy is to supplement the relatively small core of full-time AAIG-BD investigators with part-time investigators, rather than have a big standing staff.
- c) The part-time investigators may be drawn from other specialized government agencies and external organizations like the Air Force, universities, research agencies and institutes and specialized service providers. The Head of the AAIG-BD will recommend suitable candidates to the Chairman CAAB for appointment as Investigators of Accidents to enable them to exercise the powers of investigators.
- d) The AAIG-BD will provide investigation related training to these part-time investigators.
- e) The cost of training these investigators will be borne by the AAIG-BD fund outsourced from CAAB.

### 12. IMMUNIZATION FOR INVESTIGATORS

- a) As there are always potential biological hazards at an accident site, all investigators should be appropriately immunized.
- b) All investigators, full-time or part-time, will be asked to immunize themselves against Tetanus, Hepatitis A, Hepatitis B and Influenza.
- c) Records of immunization will be maintained by the AAIG-BD for each investigator.
- d) The AAIG-BD will reimburse the investigators for the immunization expenses where the immunization is carried out at designated hospitals or clinics..

### 13. TRAINING OF INVESTIGATORS

(See AAIG-BD Investigation Training Manual in Part-E).



#### 14. INVESTIGATION OF ACCIDENTS AND INCIDENTS

- a) One of the key functions of the AAIG-BD is the investigation of accidents and incidents.
- b) The AAIG-BD has drawn up an Aircraft Accident Investigation Handbook, known as the AAIT Manual which provides guidelines for the AAIG-BD investigators in their investigation of accidents and serious incidents, including incidents that do not fall into the serious incident category. The Manual is not intended to be an encyclopaedic reference for the investigators. Further reference material is included in the Handbook.

#### 15. RELEASE OF INVESTIGATION REPORTS

- a) The Head of AAIG-BD shall ensure the Final Report of an investigation into an accident or incident to be made public.
- b) The Final Report shall be made public –
  - 1. after the Final Report has been sent to the States and various parties concerned;
  - 2. as soon as possible; and
  - 3. in such manner as the Head of AAIG-BD thinks fit.
- c) The Final Report that has been released will be made downloadable from the CAAB/AAIG-BD website. However, titles of older reports that may cease to be downloadable owing to server memory constraint will still be listed on the CAAB/AAIG-BD website. Interested readers may contact the AAIG-BD to request for a copy of these reports.

#### 16. MAKING SAFETY RECOMMENDATIONS

- a) The Head of AAIG-BD or the investigator-in-charge may make safety recommendations at any stage during the course of an investigation. They do not need to wait until the completion of an investigation to make any recommendations.
- b) In addition to safety recommendations arising from accident and incident investigations, safety recommendations may result from diverse sources, including safety studies.
- c) Thus, the AAIG-BD may also make safety recommendations to a person or organization in Bangladesh arising from safety information that it has gathered from other sources (e.g. safety recommendations from diverse sources, safety studies, fact-finding and analysis exercises, foreign investigation reports, news and articles).



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- d) If safety recommendations are addressed to an organization in another State, the Head of AAIG-BD shall ensure that they are transmitted to that State's investigation authority.
- e) A safety recommendation shall, in no case, create a presumption of blame or liability for an accident or incident.
- f) The AAIG-BD does not have the power to enforce safety recommendations. However, in respect of the safety recommendations issued to a person or organization in Bangladesh arising from an investigation conducted by the AAIG-BD, or issued to a person or organization in Bangladesh by a foreign investigation authority and made known to the AAIG-BD, the AAIG-BD has the power to require and will require such persons or organization in Bangladesh to:
  - 1. take those recommendation into consideration and, where appropriate, act upon them;
  - 2. provide the Head of AAIG-BD with the full details of the measures, if any, that they have taken or propose to take to implement the recommendations (including the schedule of implementation); or
  - 3. provide a full explanation as to why no measures will be taken to implement the recommendations.
- g) A 'Recommendations Status Review Panel' (RSRP), to be chaired by the Head AAIG-BD, will monitor the progress of the action taken in response to the safety recommendations issued by the AAIG-BD and review and decide on the closure status of the recommendation.
- h) For safety recommendations issued to a person or organization in Bangladesh by a foreign investigation authority and made known to the AAIG-BD, the RSRP will also monitor the progress of the action taken in response to the safety recommendations. The AAIG-BD will inform the foreign investigation authority, within 90 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.

### 17. RECOMMENDATIONS STATUS REVIEW PANEL (RSRP)

- a) A Recommendations Status Review Panel will review and decide on the closure status of the recommendations made by the AAIG-BD.
- b) The Panel will be chaired by the Head of the AAIG-BD and include two other investigators as members. One of the two members will be appointed as the Secretary of the Panel.



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- c) The Secretary of the Panel will also arrange for the relevant investigators, the closure of whose safety recommendations will be discussed by the Panel, to participate in the Panel's review sessions.

### 18. CONFIDENTIALITY OF AVIATION INCIDENT REPORTING PROGRAMME

- a) ICAO requires each State to establish a voluntary non-punitive incident reporting system that affords protection to the sources of the information. The purpose of such a system is to complement the mandatory incident reporting system in the gathering of safety information.
- b) The AAIG-BD supports ICAO's vision for States to have a voluntary non-punitive incident reporting system. While the mandatory reporting of accidents and incidents will often result in investigations and safety recommendations, many incidents that have potential in helping to enhance safety go unreported. Very often, the parties involved in such incidents did not make a report for fear of punitive action by the authorities. Thus, many opportunities to learn from the incidents, and to prevent incidents, are lost.
- c) The AAIG-BD has developed and is maintaining a voluntary, non-punitive confidential incident reporting system called the State Confidential Aviation Incident Reporting (SCAIR) programme. SCAIR provides a channel for the reporting of aviation incidents and safety deficiencies while protecting the reporter's identity. However, a SCAIR report must not be anonymous or contain unverifiable information. A reporter must provide contact details to the SCAIR Programme Manager.

Note: Annex 19 paragraph 5.1.2 states that "Each State shall establish a voluntary incident reporting system to facilitate collection of information on actual or potential safety deficiencies that may not be captured by the mandatory incident reporting system" and paragraph 5.3.1 states that "A voluntary incident reporting system shall be non-punitive and afford protection to the sources of the information."

- d) The principal aim of SCAIR is to enhance aviation safety through the collection of information on incidents that would otherwise not be reported through other channels or that may appear minor, but which nevertheless can allow others to learn from the reporter's experience and even lead to changes in procedures or design. However, SCAIR does not obviate the need for mandatory reporting of aircraft accidents and incidents to the relevant authorities under the existing law.
- e) SCAIR focuses on systems, human factors, procedures and equipment, rather than on individuals. The areas covered by SCAIR include: departure/en-route/approach/landing operations, ATC operations, ATC equipment and navigation aids, crew and ATC communications, aircraft cabin operations, aircraft ground operations, movement on the





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airport, near midair collisions, aircraft maintenance and record keeping, and safety-related passenger and cargo operations, fueling operations, airport conditions or services.

- f) SCAIR will be a means for flight and cabin crew members, air traffic controllers, licensed aircraft engineers, employees of approved maintenance organizations, employees of approved design and manufacturing organizations, airport operators, airport employees, and individuals involved in general aviation to contribute to safety enhancement through their reporting on actual or potential discrepancies and deficiencies that involve safety of aviation operations.
- g) A Programme Manager of SCAIR (PM SCAIR) is designated by the Head of AAIG-BD to administer the SCAIR programme and to read and process the SCAIR reports. An Alternate Programme Manager is also designated by the Head of AAIG-BD to deputize for the Programme Manager when the PM SCAIR is away for a prolonged period. Each SCAIR report will be read and followed through by either the Programme Manager or the Alternate Programme Manager.
- h) Once a SCAIR report has been processed (i.e. clarification obtained from the reporter; information validated and de-identified and captured in the SCAIR database), the report will be returned to the reporter without any copy of the report being created or retained. After the return of the SCAIR report, the Programme Manager will have no more reference to the reporter and will not be able to contact the reporter.
- i) Relevant de-identified reports and extracts will be shared with the aviation community periodically, so that all can learn from the experiences and that the relevant authorities and parties can review their policy and plan for improvements. However, if the content of a SCAIR report suggests a situation or condition that poses an immediate or urgent threat to aviation safety, the report will be handled with priority and referred, after de-identification, to the relevant organizations as soon as possible to enable them to take the necessary safety action.
- j) Information provided under the SCAIR programme is provided in official confidence. Protection of this information (and thus its sources) from disclosure must be ensured. The Programme Manager or the Alternate Programme Manager who are members of the AAIG-BD cannot be compelled to disclose information made to them in official confidence.





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### 19. DISSEMINATION OF SAFETY INFORMATION

#### a) Introduction

1. ICAO's stated sole objective of investigation is the prevention of accidents and incidents. Safety recommendations to address safety deficiencies are important products of an investigation exercise. The recommendations will prompt the relevant organizations to take the necessary safety enhancement action.
2. ICAO considers it equally important that the investigation reports be widely circulated, so that as many as possible can benefit from the safety lessons learnt.
3. It cannot be overemphasized that States should take the time and trouble to review other States' investigation reports and any other available accident investigation and prevention related information, with a view to reflecting on the accidents and incidents and drawing lessons from them to ensure there will be no similar occurrences in their States or involving their operators.

#### b) Information Received by the AAIG-BD

1. In this respect, the AAIG-BD takes on a role of reviewing foreign accident investigation and prevention related information with a view to disseminating to the relevant organizations in Bangladesh and highlighting the lessons that can be learnt and, where applicable, making specific recommendations.
2. The AAIG-BD has contacts with many of the investigation authorities in the advanced aviation nations and is also a corporate member of the International Society of Air Safety Investigators. Through this network of accident investigation professionals, the AAIG-BD receives useful accident investigation and prevention related information. The information that the AAIG-BD is currently reviewing comes mainly from:
  - a. The websites of the major investigation authorities (e.g. in Singapore, Australia, US, UK and other EU member countries);
  - b. Subscriptions to e-mail broadcast service offered by the US National Transportation Safety Board and the Australian Transport Safety Bureau;
  - c. Investigation reports in various formats and details (e.g. full reports in the ICAO recommended format, and simpler investigation briefs or bulletins);



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- d. Special study/research reports (e.g. on bird hazards to aircraft);
- e. Press releases from investigation authorities (e.g. interim safety recommendations while investigation is still on-going, safety concerns that are being considered);
- f. Media report;
- g. Investigation cases highlighted in aviation magazines;
- h. Safety news compiled by safety organizations like the International Society of Air Safety Investigators.

### c) Sharing of information

1. AAIG-BD will share the information with some or all of the following groups of people and organizations (depending on the nature of the issues raised) in the hope that they can take note of the lessons learnt and, where applicable, initiate safety improvement action:
  - a. Civil Aviation Authority of Bangladesh;
  - b. Other government agencies, e.g. Meteorological Services Division of the National Environment Agency of the Ministry of Environment;
  - c. Bangladesh aerodrome operators;
  - d. Bangladesh air operators;
  - e. Bangladesh aircraft maintenance companies

Note: Such information is often shared with the AAIG-BD investigators (full-time and part-time) as a part of investigator training.

2. Most of the information is of a technical nature. The AAIG-BD does not, as a routine, copy the information to Chairman CAAB. However, the AAIG-BD will share the information with Chairman CAAB if it is unusual in some aspects or if a significant potential or real deficiency exists in Bangladesh.



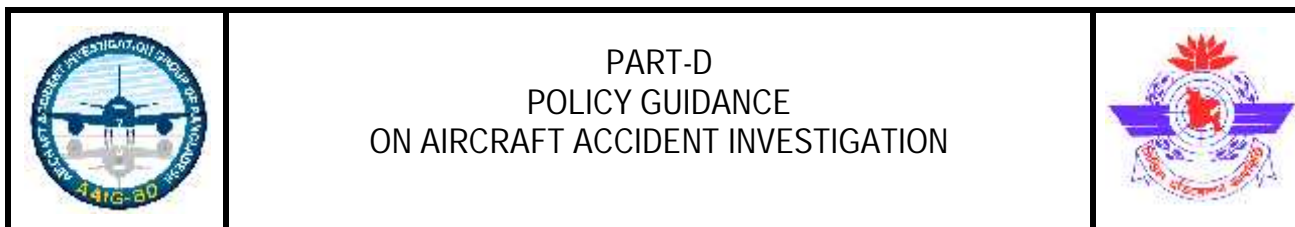
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20. ACCIDENT AND INCIDENT DATABASE

- a) ICAO has through Amendment 12 to Annex 13 required that a State shall establish an accident and incident database to facilitate the effective analysis of information on actual or potential safety deficiencies obtained, including that from its incident reporting systems, and to determine any preventive actions required.
- b) The Civil Aviation Authority of Bangladesh (CAAB) is required to establish and maintain on behalf of Bangladesh an accident and incident database known as the State Aviation Accident/Incident Reporting System (SAIRS).
- c) The CAAB is required to use the SAIRS data to perform safety trend analysis and shares such analysis with the AAIG-BD in the context of the National Aviation Safety Team (NAST).
- d) The AAIG-BD has access to SAIRS for the following purposes:
  - 1. AAIG-BD's inputting of data into SAIRS that are associated with AAIG-BD's investigation of occurrences.
  - 2. AAIG-BD's appreciation of the background to CAAB's safety trend analysis.
  - 3. AAIG-BD's research as part of its investigation of occurrences.
  - 4. AAIG-BD's reviewing of occurrences other than accidents and serious incidents to see if it needs to launch any formal investigation into such occurrences for the drawing of air safety lessons.
  - 5. AAIG-BD's reviewing of safety data for generating safety recommendations to the aviation industry.
- e) If safety matters considered to be of interest to other States or to the industry are identified in the review of the SAIRS data, the AAIG-BD will, in coordination with the CAAB where necessary, forward the information to the States or share the information with the industry as soon as possible.

Note: This is in addition to sharing information with other States or the industry when safety matters are identified in connection with a particular investigation.



## 21. DIALOGUE WITH INDUSTRY

- a) The AAIG-BD will maintain constant dialogue with the industry, such as the Bangladesh aerodrome operators, Bangladesh carriers, foreign carriers that operate in Bangladesh, and the aviation maintenance, repair and overhaul companies.
- b) The AAIG-BD aims to achieve the following through the dialogue sessions with the various companies in the industry:
  1. To ensure the companies are aware of AAIG-BD's set-up, contact numbers, roles and functions.
  2. To get to know the key personnel in the companies who will likely be involved in an AAIG-BD investigation (e.g. the Bangladesh carriers' quality assurance and safety officials, the local representatives of the foreign airlines), which would facilitate better coordination during the investigation.
  3. To gain an idea of the companies' operational and staffing profiles and of their crisis management plans.
  4. To ensure the companies are aware of Bangladesh's investigation legislation, to highlight the key features in the legislation and to provide an update on the legislation changes, if any.
  5. To explain the AAIG-BD coordination and investigation procedures detailed in the airport operators' emergency plans and to highlight the roles that the companies can play.
  6. To promote the State Confidential Aviation Incident Reporting (SCAIR) programme.
  7. To encourage sharing of safety information.
  8. To obtain feedback from the companies regarding coordination and investigation procedures.

## 22. NATIONAL AVIATION SAFETY COMMITTEE

- a) ICAO requires States to establish a State Safety Programme (SSP), in order to achieve an acceptable level of safety in civil aviation. The SSP is defined as an integrated set of regulations and activities aimed at improving safety. The SSP framework consists of four components and a total of 11 elements, as follows:



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1. Bangladesh Safety Policy and Objectives
    - a. Bangladesh Safety Legislative Framework;
    - b. Bangladesh Safety Responsibilities And Accountabilities;
    - c. Accident and Incident Investigation;
    - d. Enforcement Policy
  2. Bangladesh Safety Risk Management
    - a. Safety requirements for service provider's Safety Management System (SMS);
    - b. Agreement on service providers' safety performance
  3. Bangladesh Safety Assurance
    - a. Bangladesh oversight;
    - b. Safety data collection, analysis and exchange;
    - c. Safety data driven targeting of oversight on areas of greater concern or need
  4. Bangladesh Safety Promotion
    - a. Internal training, communication and dissemination of safety information;
    - b. External training, communication and dissemination of safety information
- b) ICAO recommends that States establish a national-level group in the form of a committee, board, etc., to ensure the coordinated participation of State aviation organizations in specific activities related to the management of safety in the State, and the establishment of the roles, responsibilities and relationship of such organizations.
- c) Bangladesh is required to respond with the setting up of a State Aviation Safety Committee (SASC). Accident and incident investigation being one of the elements of the SSP, the AAIG-BD supports the operation of the SASC.



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- d) The SASC is led by the Civil Aviation Authority of Bangladesh (CAAB) and SASC members comprise officials from the CAAB and the AAIG-BD.

The terms of reference of the SASC are to:

1. develop and implement a SSP for Bangladesh in accordance with ICAO requirements;
2. coordinate SSP activities among relevant authorities in Bangladesh;
3. review the Acceptable Level of Safety under the SSP; and
4. review SSP policies and practices.

- e) The roles of the three member agencies in the SASC are as follows:

1. Civil Aviation Authority, Bangladesh (CAAB)

- a. Provide safety oversight of operators (AOC, aerodrome), service providers (MRO, ATC, training organizations, etc.), and licensed personnel;
- b. Provide safety oversight of meteorological services provider;
- c. Coordinate the development and implementation of the SSP;
- d. Oversee the implementation of SMS by operators and service providers;
- e. Collect, analyze and share safety data;
- f. Promote safety;
- g. Set and monitor Bangladesh's Acceptable Levels of Safety

2. Aircraft Accident Investigation Group of Bangladesh (AAIG-BD)

- a. Conduct independent investigation;
- b. Administer a voluntary, non-punitive incident reporting system;
- c. Promote safety and share safety information



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- f) The SASC has noted that the AAIG-BD will take the role of observer when SASC makes decisions relating directly to CAAB's oversight responsibilities (e.g. in setting the Acceptable Level of Safety) in order to avoid any potential conflicts of interest.
23. PARTICIPATION AS STATE OF REGISTRY, STATE OF THE OPERATOR, STATE OF MANUFACTURE OR STATE OF DESIGN IN AN INVESTIGATION CONDUCTED BY ANOTHER STATE
- a) Where an accident or incident has occurred outside Bangladesh and involve Bangladesh as the State of Registry, State of the Operator, State of Manufacture or State of Design, the AAIG-BD will assist and support the investigation authority of the State conducting the investigation as necessary.
  - b) In particular, if a Bangladesh aircraft or an aircraft operated by a Bangladesh operator is involved in an accident or a serious incident and has landed outside the State of Occurrence, the AAIG-BD will, on request from the State conducting the investigation, furnish the latter State with the flight recorder records and, if necessary, the associated flight recorders.
  - c) The Head of AAIG-BD ensures that Bangladesh will appoint an accredited representative and advisers to participate in the investigation if requested.
  - d) In this respect, pursuant to the authority empowered under the Bangladesh Ordinance 1960 to Chairman CAAB and thereafter the delegation of tasks empowered by Chairman CAAB to the Head of AAIG-BD, the Head of AAIG-BD will appoint an accredited representative and one or more advisers to assist the accredited representative and to participate in foreign accident/incident investigations.
24. PROVISION OF INFORMATION, FACILITIES OR EXPERTS
- Note: Paragraphs 5.14, 5.15 and 5.17 of Annex 13 state that:
- 1. "5.14 Any State shall, on request from the State conducting the investigation of an accident or an incident, provide that State with all the relevant information available to it."
  - 2. "5.15 Any State, the facilities or services of which have been, or would normally have been, used by an aircraft prior to an accident or an incident, and which has information pertinent to the investigation, shall provide such information to the States conducting the investigation."
  - 3. "5.17 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."





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- a) The AAIG-BD will assist the investigation authority of the State conducting the investigation in gathering the information sought by the latter.
- b) It is noted that if Bangladesh provides, on requests, information, facilities or experts to the State conducting the investigation, Bangladesh will be entitled to appoint an accredited representative to participate in the investigation.
- c) In this respect, pursuant to the authority empowered under the Bangladesh Ordinance 1960 to Chairman CAAB and thereafter the delegation of tasks empowered by Chairman CAAB to the Head of AAIG-BD, the Head of AAIG-BD will appoint an accredited representative and one or more advisers to assist the accredited representative and to participate in foreign accident/incident investigations.

25. FOREIGN ACCIDENTS INVOLVING FATALITIES OR SERIOUS INJURIES TO BANGLADESHI CITIZENS

Note: Paragraph 5.27 of Annex 13 states that:

"A State which has a special interest in an accident by virtue of fatalities or serious injuries to its citizens shall, upon making a request to do so, be permitted by the State conducting the investigation to appoint an expert who shall be entitled to:

- 1. visit the scene of the accident;
  - 2. have access to the relevant factual information, which is approved for public release by the State conducting the investigation, and information on the progress of the investigation; and,
  - 3. receive a copy of the Final Report."
- a) Where Bangladesh is not the State of Registry, the State of the Operator, the State of Design or the State of Manufacture, and its citizens have suffered fatalities or serious injuries in a foreign accident, the Head of AAIG-BD may appoint an expert to participate in the foreign investigation. The AAIG-BD will approach the investigation authority of the State conducting the investigation if there is a need for such an expert to be appointed.



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26. REFERENCE MATERIAL

- a) ICAO Annex 13, latest amendment;
- b) ICAO Manual of Aircraft Accident and Incident Investigation (Doc 9756);
- c) ICAO Manual of Aircraft Accident Investigation (Doc 6920, which is replaced by Doc 9756);
- d) ICAO Accident Prevention Manual (Doc 9422);
- e) ICAO Human Factors Training Manual (Doc 9683);
- f) ICAO Safety Management Manual (Doc 9859);
- g) ICAO Manual on Accident and Incident Investigation Policies and Procedures (Doc 9962);
- h) ICAO Guidance on Assistance to Aircraft Accident Victims and Their Families (Circular No. 285);
- i) ICAO Training Guidelines for Aircraft Accident Investigators (Circular No. 298).

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PART-E  
TRAINING GUIDANCE  
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CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

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AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



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## PART-E TRAINING GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### PART-E TRAINING GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION

#### FOREWORD

1. Bangladesh, being a Signatory to the Convention on International Civil Aviation and a Member of the International Civil Aviation Organization (ICAO), is obligated to adopt measures to ensure accident prevention and safety recommendations in conformity with international practices. In accordance with ICAO, the fundamental elements of the Bangladesh are aimed at establishing mandatory requirements consistent with ICAO standards in the area of accident investigation.
2. In order to give effect to the requirements of ICAO Annex 13 and Para 2.1.3 of Doc 9756 towards establishing an independent Aircraft Accident Investigation Agency, and with a view to ensuring that Aircraft Accident Investigation shall be accomplished independently and free from any conflict of interest, Chairman CAAB, has declared through exercising the authority of Rule 3 (2) (a) and (b) by designating a 7-member specific Group, to be known as 'The Aircraft Accident Investigation Group of Bangladesh' (AAIG-BD), who shall ensure conduct of investigation independently and with full authority.
3. The Aircraft Accident Investigation Group of Bangladesh (AAIG-BD), formed with the adoption of ANO that encompasses the entire area of aircraft accident and serious incident investigation, has developed this Guidance material for use by the members of the AAIG-BD as well those of the accident and serious incident investigators designated by the AAIG-BD for conduct of investigation independently and with full authority towards establishing an efficient system in the area of accident investigation.
4. This Guidance material, prepared and developed in conjunction with the ANO is based on ICAO Annex 13 to the convention, the Manual of aircraft accident and incident investigation and ICAO Circular 298 on aircraft accident investigation. This Guidance shall supersede all the previous guidance related to aircraft accident and incident investigation and shall be complied with accordingly.
5. This Investigation Training Guidance is an internal document of the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD). It contains policies relating to the training of AAIG-BD investigators for the purpose of guiding the professional development of the AAIG-BD.
6. Except for material which has been approved for public distribution, the contents of this Part are not intended to be communicated to persons outside the AAIG-BD without the consent of the Head of the AAIG-BD.
7. This Part is not regulatory in nature and is not a binding statement of policy. The Part is also not all inclusive. Deviation from the guidance offered in this Part will at times be necessary to meet the specific needs of an investigation.
8. The Part will be revised when necessary. The Inspectors of Accidents and AAIG-BD officers are encouraged to contribute ideas for improving the contents of this Part.

Capt Salahuddin M Rahmatullah  
Head of AAIG-BD  
30 June 2016



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APPROVAL AND AMENDMENT PROCEDURE

1. This Part will be updated or revised as and when necessary (e.g. to comply with new ICAO requirements, to address feedback from operational experience and audits, and make corrections and editorial improvement).
2. The revision will be made by the Head of AAIG-BD himself. He may also assign any member of the AAIG-BD to carry out the revision, in which case he will review and approve the revision eventually proposed by the member of the AAIG-BD concerned.
3. Upon the completion of the revision, Head of AAIG-BD or any member of the AAIG-BD concerned will make notes in the file CAAB/CS/32/AAIG-BD/TRG to:
  - a) record the completion of the revision exercise; and,
  - b) document the changes to be made to the Part.
4. A distribution list of the hardcopies of this Part can be found in the file CAAB/CS/32/AAIG-BD/TRG.
5. For amendment of the hardcopies of this Part, Head of AAIG-BD or any member of the AAIG-BD concerned will prepare an amendment instruction and will arrange for the amendment instruction and the related new/amended pages to be distributed and inserted into this Part.
6. The Training Guidance on Aircraft Accident Investigation is hereby approved.

  
Capt Salahuddin M Rahmatullah  
Head of AAIG-BD  
30 June 2016





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ISSUE-01/AMENDMENT-00/DATE: 30 JUNE 2016



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## PART-E TRAINING GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### TRAINING GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION

#### 1. GENERAL

- a) Training of investigators is an important element in ensuring that the AAIG-BD discharges effectively its investigation duties. The need for training arises from the following:
  - 1. Bringing newly recruited investigators to the necessary standard.
  - 2. Replacing the expertise lost through the retirement of more experienced investigators.
  - 3. Keeping abreast of technological developments as aircraft become more complex.
  - 4. Meeting new challenges posed by the increasing complexity of the aviation industry (e.g. pressure from the media and the public).
- b) The AAIG-BD aims to train its investigators to acquire the following abilities and knowledge:
  - 1. An understanding of aircraft operations and the relevant technical areas of aviation;
  - 2. Knowledge of aircraft accident investigation techniques;
  - 3. Ability to manage the various aspects of an investigation;
  - 4. Ability to appreciate the depth of investigation that is necessary in order to fulfil the investigation obligation and requirements;
  - 5. Ability to obtain and manage the relevant technical assistance and resources required to support the investigation;
  - 6. Ability to collect, document and preserve evidence;
  - 7. Ability to identify and analyze pertinent evidence in order to determine the causes and make safety recommendation;
  - 8. Ability to write reports in a succinct, clear, unambiguous and well organized manner;
  - 9. Safety precaution at site of occurrence.
- c) Training of the investigators may take the following forms:



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1. In-house indoctrination training;
  2. On-the-job training;
  3. Formal courses;
  4. Participation in crash exercises;
  5. Attachment to overseas investigation;
  6. Attendance of safety and investigation conferences, seminars, workshops, etc.
  7. Reading material (including investigation reports);
  8. In-house discussions
- d) The AAIG-BD aims to train its investigators commensurate with their responsibilities as a member of an accident team, group leader, investigator-in-charge, accredited representative, advisor or expert/ specialist. Using ICAO Circular 298 "Training Guidelines for Aircraft Accident Investigators" as a reference, the AAIG-BD has drawn up its training guidelines in Chapter 2.
- e) The training status of the investigators will be reviewed from time to time during the AAIG-BD departmental meeting.
2. TRAINING GUIDELINES

Training of an investigator involves several phases. These phases include initial training, on-the-job training, a basic accident investigation course and an advanced accident investigation course supplemented by specialised courses.

### 2.1 Initial training or Indoctrination

The aim of the initial training is to familiarize new investigators with the investigation legislation and the relevant aviation legislation. The initial training or indoctrination will include the following subjects:

#### a) ICAO Documentation

1. ICAO Annex 13 – Aircraft Accident and Incident Investigation;



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### 2. ICAO Doc 9756 - Manual on Aircraft Accident and Incident Investigation;

Part I – Organization and Planning

Part II – Procedures and Checklists

Part III – Investigation

Part IV – Reporting

### 3. ICAO Doc 9859 - Safety Management Manual;

### 4. ICAO Doc 9962 – Manual on Accident and Incident Investigation Policies and Procedures

#### b) Primary Aviation Legislation and Specific Operating Regulations

1. Relevant portions of the Civil Aviation Ordinance 1960 (PART-A);

2. Relevant portions of the Civil Aviation Rules 1984 (PART-B);

3. Relevant portions of Air Navigation orders, ANO-13 (PART-C);

#### c) The AAIG-BD

1. Organization of the AAIG-BD;

2. List of the investigators of the AAIG-BD Panel;

3. List of Investigators of the pool designated by the AAIG-BD;

4. Role of the Ministry of Civil Aviation & Tourism;

5. Role of Chairman CAA Bangladesh;

6. Role and responsibility of the AAIG-BD Panel;

7. Approval of Documents, Budget and Work-plan;

8. Role and responsibility of the Aircraft Accident Investigation Team (AAIT), Investigator-In-Charge, Accredited Representative, Advisor or Expert/Specialist;

9. AAIG-BD Policy and Guidance (PART-D);





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10. AAIG-BD Investigator Training Policy (PART-E);
11. AAIG-BD Aircraft Accident Investigation Team Manual (PART-F);
12. AAIG-BD Field Investigation Instructions;
13. AAIG-BD Accident Site Safety Precautions;
14. AAIG-BD Miscellaneous Operations Procedures; and,
15. AAIG-BD Ethics, Conduct and Professionalism.

### d) International Cooperation

1. Foreign Investigation Authorities;
2. MOUs with Foreign Investigation Authorities;
3. Assistance available from Foreign Investigation Authorities.

### e) AAIG-BD Preparedness

1. AAIG-BD Duty Officer;
2. Equipment, tools, go-bag;
3. Transport arrangements;
4. Role of external agencies in e.g. CAAB, Police, Military, Health Authority in an investigation;
5. Investigator Safety and Biohazard Precaution.

### f) Initial Response and Investigation Action

1. Call-up of investigators upon activation;
2. Notification of national and foreign authorities and organizations;
3. Accident site management and coordination with ERP, AES, Police, etc. (e.g. on site security, post-crash fire protection);



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4. Securing of records, recordings and samples;
5. Interview of aviation personnel involved and witness;
6. Medical examination of aviation personnel involved;
7. Handling of human remains, request for autopsy, etc.;
8. AAIG-BD's authorization to remove wreckage;
9. Arrangement for testing of samples and components, teardown examinations;
10. Reading out of the CVRs and DFDRs etc.;
11. Arrangement for underwater wreckage recovery;
12. Organization of accredited representatives and their advisors into the AAIG-BD investigation team and investigation groups;
13. Command and control of the investigation team and investigation groups;
14. Coordination with Crisis Management Centre, Next of Kin and Family issues.

### 2.2 On-the-Job Training

- a) The new investigators will be tasked under 'On the job' training to support the experienced investigators in new or on-going investigations. They will be tasked to assist the experienced investigators in the notification of foreign authorities, research and collection of factual information, interviews, supervision of tests, recording of observations, transcription of CVR recordings, organization of logistics, drafting of reports, etc. They will also be asked to contribute their opinions.
- b) Familiarization visits to the industry and the external agencies in Bangladesh will be arranged for the new investigators.
- c) New investigators will also be trained on the operation of investigation equipment used during field investigation.



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### 2.3 Basic Accident Investigation Courses

- a) New investigators will be sent to attend Formal Basic Accident Investigation Courses as soon as is practicable, if they have not already attended such courses prior to joining the AAIG-BD. A basic course is expected to cover as many of the following subjects as possible:
1. ICAO Annex 13
  2. Accident Notification Procedures
  3. Investigation Management
  4. Investigator's Equipment And Protective Clothing
  5. Accident Site Control, Management And Safety
  6. Protection And Recording Of Evidence
  7. Initial Action At Accident Site
  8. Information Gathering Techniques
  9. Communication and Recording Media
  10. Witness Interview Techniques
  11. Recorders (Basic)
  12. Examination of Relevant Maintenance Documents
  13. Fires and Explosion
  14. Crashworthiness and Survival Aspects
  15. Aerodynamics and Aircraft Performance
  16. Structures, Systems and Power Plants
  17. Modes of Failure of Materials and Aircraft Systems
  18. Rotary Wing Aircraft
  19. Organizational and Management Information
  20. Human Factors, Aviation Medicine and Pathology
  21. Determination of Flight Crew's Suitability for The Flight
  22. Methods of Analyzing Factual Information
  23. Report Writing Methodology
  24. New Media and Public Relations
  25. Underwater Wreckage Recovery
  26. Next of Kin/Family Assistance

### 2.4 Advanced Courses

- a) To prepare the investigators for the responsibilities of group leader or investigator-in-charge of a major investigation, the AAIG-BD will send investigators to attend advanced courses. In an advanced course, the topics in the basic course are expected to be reviewed with greater depth added to selected topics. Such topics may include the following:



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1. Relations with the media;
2. Cataloguing a large number of fragments of wreckage;
3. Issues related to family/Next of Kin/family assistance;
4. Emergency planning and interfacing with emergency response agencies;
5. Liaison with the security authorities in accidents involving unlawful interference; and,
6. Health and safety requirements for investigators.

b) Other topics in an advanced course which are of interest to the AAIG-BD include:

1. Techniques used to investigate accident damaged systems that involve specialized technologies such as glass cockpit, fly-by-wire systems, GPS, and EGPWS;
2. Reconstruction of evidence from damaged recorders;
3. Wreckage reconstruction;
4. Use of flight simulators; and,
5. Use of computer simulations.

### 2.5 Specialty Courses

a) The AAIG-BD will also send investigators to attend specialty/short courses to augment their skills and knowledge in order to meet the needs of a particular area of accident investigation. Specialty topics that interest the AAIG-BD include:

1. Helicopter accident investigation;
2. Gas turbine engine accident investigation;
3. Aircraft performance investigation;
4. Aircraft structure investigation;
5. Electronic systems investigation;
6. Fire and explosion investigation;
7. Air traffic control accident investigation;
8. Human factors investigation; and,
9. Cabin safety;
10. Crew/Cabin resource management;
11. Photography for investigators;
12. Aircraft type courses;
13. Recorders (advanced);
14. Non-destructive testing;
15. Composite materials;
16. Dangerous goods;
17. Media relations;
18. Aviation safety management;



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19. Safety decision making;
20. Ramp safety;
21. Maintenance safety;
22. State safety programme;
23. Data analysis techniques;
24. Aircraft accident litigation cases;
25. Use of information technology to help enhance the efficiency and effectiveness in the conduct of investigations and report writing

### 2.6 On-Going Training

- a) Attachment to foreign accident investigations will be arranged when opportunities arise.
- b) Investigators will also be nominated to attend safety and investigation conferences, seminars, workshops, etc.
- c) Investigators are expected to keep abreast of developments in the investigation areas through their own reading, including perusal of foreign investigation reports.
- d) The AAIG-BD will organize from time to time in-house training and discussion sessions among the investigators.

### 3. HEALTH AND SAFETY TRAINING GUIDELINES

- a) ICAO Circular 315 emphasises the importance of providing health and safety training for accident investigators to ensure that they are able to identify hazards on the accident site and take appropriate measures in protecting themselves against such hazards.
- b) The health and safety training for AAIG-BD's investigators will include the following topics though not exhaustive :
  1. Risk Assessment;
  2. Hazards Associated with Aircraft Accident Response;
  3. Blood-Borne Pathogens;
  4. Psychological Reactions to Aircraft Accident Response Operations;
  5. Site Safety Management;
  6. Preservation of Evidence; and
  7. Personal Protective Equipment (PPE).



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- c) The health and safety training may take the following forms:
  1. Initial Blood-borne Pathogen training as part of the Aircraft Accident Investigation Management course conducted by an Aviation Academy;
  2. Aircraft Accident Site Safety Workshop conducted by occupational health and safety experts;
  3. Risk assessment training conducted by local OSHA occupational health and safety organization;
  4. In-house briefing on accident site hazard identification and exercises in donning PPE.
- d) On successful completion of training, investigators will be issued a card to indicate when they have last undergone health and safety Training.
- e) AAIG-BD investigators will undergo a refresher health and safety training once every three years.

### 4. TRAINING PLAN FOR INVESTIGATORS

- a) A general plan for training the various grades of AAIG-BD investigators is as follows:

| SENIORITY               |                                 | TRAINING AND EXPERIENCE TO BE PROVIDED (AS FAR AS IS POSSIBLE/ PRACTICAL/ AVAILABLE)   |
|-------------------------|---------------------------------|--|
| Investigators Grade 1-2 | Investigators Grade 3 and above | <ul style="list-style-type: none"> <li>▪ In-house indoctrination;</li> <li>▪ Aircraft accident investigation techniques and regulations;</li> <li>▪ Aircraft accident investigation management;</li> <li>▪ Organizational factors;</li> <li>▪ Human factors;</li> <li>▪ Site safety and blood borne pathogen avoidance;</li> <li>▪ Media handling;</li> <li>▪ On-the-job training;</li> <li>▪ Investigation equipment training;</li> <li>▪ Basic recorder training;</li> <li>▪ Crash exercises;</li> <li>▪ Mobilization turn-ups;</li> <li>▪ Reading and reviewing safety and investigation reports;</li> <li>▪ Writing AAIG-BD Safety Information articles;</li> <li>▪ Member of investigation team for Ground Accident/Nil fatality/Non-complex occurrences, including understudying the IIC;</li> <li>▪ Being IIC for GA/nil fatality/non-complex occurrences;</li> <li>▪ Member of investigation team for a more serious occurrence, including understudying the IIC or investigation sub-group chairman;</li> <li>▪ Drafting investigation sub-group reports or final reports;</li> <li>▪ Opportunities to critique other AAIG-BD draft reports;</li> </ul> |



## PART-E TRAINING GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



|  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>▪ Attachments to foreign investigations;</li> <li>▪ Relevant safety and investigation conferences and seminars;</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>▪ Relevant specialty courses;</li> <li>▪ Relevant advanced training;</li> <li>▪ Recurrent training on relevant topics;</li> <li>▪ Relevant safety and investigation conferences and seminars;</li> <li>▪ Crash exercises;</li> <li>▪ Member of investigation team for relatively complex occurrence or occurrence with few fatalities, including understudying the IIC</li> <li>▪ Being IIC for relatively complex occurrence or occurrence with few fatalities</li> <li>▪ Member of investigation team for major accident or occurrence with many fatalities, including understudying the IIC or investigation sub-group chairmen</li> <li>▪ Being investigation sub-group chairman for investigation of major accident or occurrence with many fatalities</li> <li>▪ Drafting investigation sub-group reports or final reports</li> <li>▪ Opportunities to critique other AAIG-BD reports</li> <li>▪ Reading and reviewing safety and investigation reports</li> <li>▪ Attachments to foreign investigations</li> <li>▪ Investigation assistance to other States</li> <li>▪ Relevant safety and investigation conferences and seminars</li> <li>▪ State safety programme</li> <li>▪ ICAO and other international/regional meetings on Annex 13</li> </ul> |

- b) Provision of training will be subject to opportunities and availability of training courses/slots. Flexibility may be exercised by the HEAD of AAIG-BD.
- c) Accelerated training may be considered for promising investigators.





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5. PERFORMANCE CAPABILITY

- a) The performance capability desired of the various grades of AAIG-BD investigators are as follows:

| SENIORITY                     | DESIRED PERFORMANCE CAPABILITY  |
|-------------------------------|---|
| Accident Investigator Grade 1 | <ul style="list-style-type: none"><li>▪ Able to apply investigation legislation, Annex 13 standards and recommended practices and ICAO guidelines;</li><li>▪ Resourcefulness;</li><li>▪ Able to network;</li><li>▪ Able to adapt or improvise;</li><li>▪ Able to attend to details;</li><li>▪ Able to share information/updates/intelligence;</li><li>▪ Able to write clearly and concisely;</li><li>▪ Willingness to probe deeper into an issue;</li><li>▪ Able to identify and muster resources needed for investigation of a GA/nil fatality/non-complex occurrence;</li><li>▪ Able to conduct witnessing of test;</li><li>▪ Able to perform as an effective member of a team investigating a GA/nil fatality/non-complex occurrence, including drafting of investigation report;</li><li>▪ Able to critique draft report for a relatively complex occurrence or occurrence with few fatalities.</li></ul> |
| Accident Investigator Grade 2 | <p>All of the above, plus:</p> <ul style="list-style-type: none"><li>▪ Able to draw up investigation plan and identify sources for the information needed;</li><li>▪ Able to perform effectively as IIC for investigation of a GA/nil fatality/non-complex occurrence, including completion of investigation report;</li><li>▪ Able to perform effectively as accredited representative for foreign investigation of a GA/nil fatality/non-complex occurrence;</li><li>▪ Able to perform as adviser to accredited representative for foreign investigation of a GA/nil fatality/non-complex occurrence;</li><li>▪ Able to manage the Accident Investigation Command Centre.</li></ul>   |





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|                               |   |
|-------------------------------|---|
| Accident Investigator Grade 3 | <p>All of the above, plus:</p> <ul style="list-style-type: none"> <li>▪ Able to provide on-site briefing to Next of Kin (NOK);</li> <li>▪ Able to use leadership skills to develop and maintain harmony in teams;</li> <li>▪ Able to guide investigators (in their roles as IIC and investigation team member) in their investigation of a GA/nil fatality/non-complex occurrence;</li> <li>▪ Able to critique draft report for a relatively complex occurrence or occurrence with few fatalities;</li> <li>▪ Able to identify and muster resources needed for investigation of a relatively complex occurrence or occurrence with few fatalities;</li> <li>▪ Able to perform effectively as an investigation sub-group chairman in investigation of a relatively complex occurrence or occurrence with few fatalities, including completion of sub-group report;</li> <li>▪ Able to perform effectively as a deputy IIC in investigation of a relatively complex occurrence or occurrence with few fatalities, including drafting of investigation report;</li> <li>▪ Able to perform as adviser to accredited representative for foreign investigation of a relatively complex occurrence or occurrence with few fatalities;</li> <li>▪ Able to draft press release.</li> </ul> |
| Accident Investigator Grade 4 | <p>All of the above, plus:</p> <ul style="list-style-type: none"> <li>▪ Able to critique draft report for a major accident or occurrence with many fatalities;</li> <li>▪ Able to provide on-site briefing to media;</li> <li>▪ Able to face the media at interview;</li> <li>▪ Able to perform effectively as IIC for investigation of a relatively complex occurrence or occurrence with few fatalities, including completion of investigation report;</li> <li>▪ Able to perform effectively as accredited representative for foreign investigation of a relatively complex occurrence or occurrence with few fatalities;</li> <li>▪ Able to perform effectively as investigation sub-group chairman in investigation of a major accident or occurrence with many fatalities, including completion of sub-group report;</li> <li>▪ Able to perform as deputy IIC for investigation of a major accident or occurrence with many fatalities, including drafting of investigation report;</li> <li>▪ Able to perform as adviser to accredited representative for foreign investigation of a major accident or occurrence with many fatalities;</li> <li>▪ Able to provide investigation briefing to the Chairman.</li> </ul>  |



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|   |  |
|---|--|
| Accident Investigator Grade 5 and above | <p>All of the above, plus:</p> <ul style="list-style-type: none"><li>▪ Able to guide investigators (in their roles as IIC, sub-group chairman and investigation team member) in their investigation of a relatively complex occurrence or occurrence with few fatalities;</li><li>▪ Able to identify and muster resources needed for investigation of a major accident or occurrence with many fatalities;</li><li>▪ Able to perform as IIC for investigation of a major accident or occurrence with many fatalities, including completion of investigation report;</li><li>▪ Able to perform effectively as accredited representative for foreign investigation of a major accident or occurrence with many fatalities;</li><li>▪ Able to provide media briefing as a member of a press conference panel (e.g. for release of facts or report).</li></ul> |
|---|--|



## PART-E TRAINING GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### 6. TRAINING NEEDS MATRIX

- a) To monitor the capability status for the investigators, the HEAD of AAIG-BD will keep a training needs matrix in the following format:

|  | Attended Training or Equivalent | X              | Training Envisaged |                |                |                |  |  |
|--|---------------------------------|----------------|--------------------|----------------|----------------|----------------|--|--|
| Investigator   | Investigator A                  | Investigator B | Investigator C     | Investigator D | Investigator E | Investigator F |  |  |
| Course Conducted   | Investigator A                  | Investigator B | Investigator C     | Investigator D | Investigator E | Investigator F |  |  |
| <u>General</u>   |                                 |                |                    |                |                |                |  |  |
| Aircraft Accident Investigation                          |                                 |                |                    |                |                |                |  |  |
| Blood borne Pathogen Avoidance                           |                                 |                |                    |                |                |                |  |  |
| Safety Management Systems                                |                                 | X              |                    |                | X              | X              |  |  |
| International Air Law: Concepts & Applications           |                                 |                | X                  | X              |                | X              |  |  |
| Human Factors for Transport Safety Investigators         |                                 |                |                    |                |                |                |  |  |
| Photo-documentation for Aircraft Accident Investigation  |                                 |                | X                  | X              |                |                |  |  |
| Handling the Media                                       |                                 |                |                    |                |                | X              |  |  |
|  |                                 |                |                    |                |                |                |  |  |
| <u>Airport related</u>                                   |                                 |                |                    |                |                |                |  |  |
| Airport Ramp Operations                                  |                                 |                |                    |                |                |                |  |  |
| Airport Certification                                    | X                               | X              | X                  | X              | X              | X              |  |  |
|  |                                 |                |                    |                |                |                |  |  |
| <u>ATS related</u>                                       |                                 |                |                    |                |                |                |  |  |
| Human Factors in Air Traffic Services                    | X                               | X              | X                  | X              | X              | X              |  |  |
| Air Traffic Services Safety Management and Investigation | X                               | X              | X                  |                | X              |                |  |  |
| Air Traffic Control Investigation                        |                                 |                |                    |                |                |                |  |  |
|  |                                 |                |                    |                |                |                |  |  |
| <u>Aircraft specific</u>                                 |                                 |                |                    |                |                |                |  |  |
| [Type(s)] Pilot Course                                   |                                 |                |                    |                |                |                |  |  |
| Introduction to B-777                                    | X                               | X              |                    |                | X              | X              |  |  |
| B-777 Aircraft Recovery                                  |                                 |                |                    |                |                |                |  |  |
|  |                                 |                |                    |                |                |                |  |  |
| <u>Other specialized training</u>                        |                                 |                |                    |                |                |                |  |  |
| Human Factor in Maintenance                              |                                 |                |                    |                |                |                |  |  |
| Aviation Medicine Investigation                          | X                               |                | X                  | X              | X              | X              |  |  |
| Crashworthiness/Survival Factors Investigation           | X                               |                |                    | X              | X              | X              |  |  |



## PART-E TRAINING GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



|  |   |  |   |   |   |   |
|--|---|--|---|---|---|---|
| Turbine Engine Investigation                   | X |  | X |   | X | X |
| Helicopter Accident Investigation              | X |  | X |   | X | X |
| Aircraft Performance Investigation             | X |  | X | X | X | X |
| Structures Investigation                       | X |  | X | X | X | X |
| Cabin Operations Investigation                 | X |  | X | X | X | X |
| Aircraft Maintenance Investigation             | X |  | X | X | X | X |
| Fire and Explosion Investigation               |   |  |   |   |   |   |
| Electronic Systems Investigation               | X |  |   | X | X | X |
| Meteorology in Aircraft Accident Investigation | X |  | X | X | X | X |
| Flight Recorder Read-out                       | X |  | X |   |   |   |

- b) The training needs table is not necessarily exhaustive. HEAD of AAIG-BD will refine the table as and when needed.

### 7. MEMORANDUM OF UNDERSTANDING (MoU)

- a) ICAO recognises that additional training for investigators can be obtained by exposure to major investigations as observers at major investigations on site in other States.
- b) The AAIG-BD agrees with ICAO that observer attachment is an excellent way to develop and further investigation expertise. The AAIG-BD will attach investigators to major investigations overseas and will constantly seek out attachment opportunities.
- c) Where appropriate, the AAIG-BD will include observer attachment as one of the cooperation areas when negotiating memorandums of understanding with other States on cooperation relating to aircraft accident and incident investigation.

### 8. TRAINING RECORD

- a) Investigators shall inform the Admin Support Section as soon as possible of the completion of their investigation training and submit a photocopy of their training certificate (if available). The Admin Support Section will update the investigator's training record accordingly and keep the photocopy of the certificate in the "Training Records" folders.
- b) The investigators shall also make notes on their training and place the notes in the appropriate AAIG-BD files after the notes are finalized. Indicated below is a 'Template':



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### c) Training Records Template:

| SL | Briefing Conducted                        | Date/<br>Duration | Name of the Trainer | Trainer's Sig/Date | Trainee's Sig/Date | Trainer's Remark |
|----|---|-------------------|---------------------|--------------------|--------------------|------------------|
| 1  | ICAO Documentation                        |                   |                     |                    |                    |                  |
| 2  | State Legislation                         |                   |                     |                    |                    |                  |
| 3  | AAIG-BD Organization                      |                   |                     |                    |                    |                  |
| 4  | International Cooperation                 |                   |                     |                    |                    |                  |
| 5  | AAIG-BD Preparedness                      |                   |                     |                    |                    |                  |
| 6  | Initial Response and Investigation Action |                   |                     |                    |                    |                  |

d) The HEAD of AAIG-BD will assign an investigator to conduct/coordinate the initial indoctrination training. As there is no certificate for such training, the recording of the completion of the training will require the trainer and trainee signing on the relevant notes. On completion of the indoctrination training, the training coordinator shall submit the notes to the Admin Support Section for filing in the "Training Records" folders. A typical format for such notes is shown below:

| SL | Follow-up Training                        | Date/<br>Duration | Type of Follow-up | Trainee's Sign/Date | Trainer's Sign/Date | Trainer's Remark |
|----|---|-------------------|-------------------|---------------------|---------------------|------------------|
| 1  | ICAO Documentation                        |                   |                   |                     |                     |                  |
| 2  | State Legislation                         |                   |                   |                     |                     |                  |
| 3  | AAIG-BD Organization                      |                   |                   |                     |                     |                  |
| 4  | International Cooperation                 |                   |                   |                     |                     |                  |
| 5  | AAIG-BD Preparedness                      |                   |                   |                     |                     |                  |
| 6  | Initial Response and Investigation Action |                   |                   |                     |                     |                  |



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9. REFERENCE MATERIALS (LATEST VERSIONS)

- a) ICAO Annex 13;
- b) ICAO Manual of Aircraft Accident and Incident Investigation (Doc 9756);
- c) ICAO Circular on Hazards at Aircraft Accident Sites (Circular 315);
- d) ICAO Accident Prevention Manual (Doc 9422);
- e) ICAO Training Guidelines for Aircraft Accident Investigators (Circular No. 298);
- f) Compendium on Aircraft Accident Investigation in Bangladesh (PART-A to PART-G);

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EXPANDED GUIDANCE  
ON AIRCRAFT ACCIDENT INVESTIGATION



CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

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AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



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## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION

#### FOREWORD, APPROVAL AND UPDATING OF THIS PART


1. Bangladesh, being a Signatory to the Convention on International Civil Aviation and a Member of the International Civil Aviation Organization (ICAO), is obligated to adopt measures to ensure accident prevention and safety recommendations in conformity with international practices. In accordance with ICAO, the fundamental elements of the Bangladesh are aimed at establishing mandatory requirements consistent with ICAO standards in the area of accident investigation.
2. In order to give effect to the requirements of ICAO Annex 13 and Para 2.1.3 of Doc 9756 towards establishing an independent Aircraft Accident Investigation Agency, and with a view to ensuring that Aircraft Accident Investigation shall be accomplished independently and free from any conflict of interest, Chairman CAAB, has declared through exercising the authority of Rule 3 (2) (a) and (b) by designating a 7-member specific Group, to be known as 'The Aircraft Accident Investigation Group of Bangladesh' (AAIG-BD), which shall be headed by a highly experienced official, serving in the Group, to ensure conduct of investigation independently and with full authority.
3. The Aircraft Accident Investigation Group of Bangladesh (AAIG-BD), thus formed with the adoption of ANO on Accident Investigation that encompasses the entire area of aircraft accident and serious incident investigation, has developed this Guidance material for use by the members of the AAIG-BD as well those of the accident and serious incident investigators designated by the AAIG-BD for conduct of investigation independently and with full authority towards establishing an efficient system in the area of accident investigation.
4. This Expanded Guidance material, contained in Part-F portion, prepared and developed in conjunction with the ANO on Accident investigation is based on ICAO Annex 13 to the convention, the Manual of aircraft accident and incident investigation and ICAO Circular 298 on aircraft accident investigation. This Guidance shall supersede all the previous guidance, other than those are in this Compendium related to aircraft accident and incident investigation and shall be complied with accordingly.
5. Information contained in this Part is an internal document of the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD). It contains Guidance relating to the responsibilities and functions of the AAIG-BD for the purpose of guiding the operations and professional development of the AAIG-BD.
6. Except for material which has been approved for public distribution, the contents of this Part are not intended to be communicated to persons outside the AAIG-BD without the consent of the Head of the AAIG-BD.



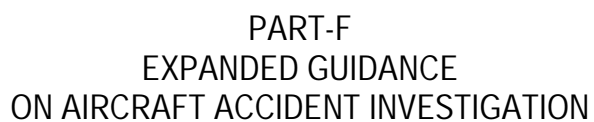
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7. The contents of this Part are not regulatory in nature and is not a binding statement of policy, and is not all inclusive. Deviation from the guidance offered in this Part may at times be necessary to meet the specific needs of an investigation.
8. The contents of this Part will be revised when necessary. The Investigators of Accidents and AAIG-BD panel are encouraged to contribute ideas for improving the contents of this Part.
8. The contents of this Guidance will be updated or revised as and when necessary (e.g. to comply with new ICAO requirements, to address feedback from operational experience and audits, and make corrections and editorial improvement).
9. The revision may be made by Head of AAIG-BD himself. He may also assign an officer such as the Member Secretary AAIG-BD, to prepare the draft of the revision, in which case he will review and submit the revision for approval by the undersigned.
10. Upon the completion of the revision, Head of AAIG-BD or the Member Secretary AAIG-BD will make notes in the file CAAB/CS/32/AAIG-BD/01/MASTER.to:
  - a) record the completion of the revision exercise; and,
  - b) Document the changes to be made to the Policy Guidance.
11. A distribution list of the Soft/hardcopies or CD copies of the Policy Guidance shall be maintained.
12. For amendment of the hardcopies, Head of AAIG-BD or the Member Secretary AAIG-BD will prepare an amendment instruction and will arrange for the amendment instruction and the related new/amended pages to be distributed and inserted into the Policy Guidance.
13. For CD copies of this Guidance, Head of AAIG-BD or the Member Secretary AAIG-BD will arrange for an updated CD version to be made and distributed.
14. This Expanded Guidance is hereby approved.

  
Capt Salahuddin M Rahmatullah  
Head of AAIG-BD  
30 June 2016



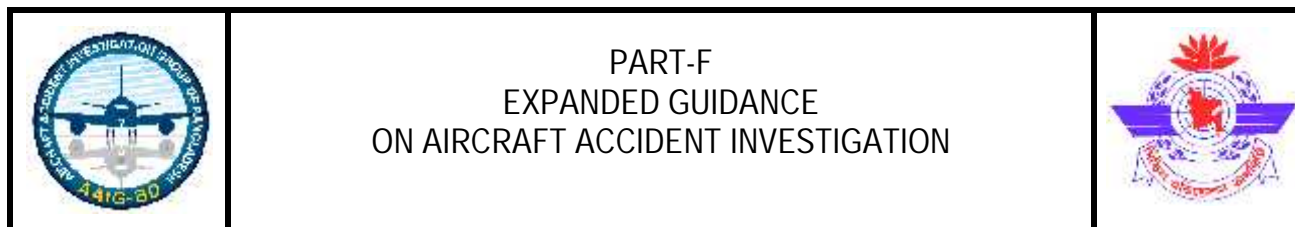
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## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION

#### 1. APPLICABILITY

- a) The Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) acknowledges the requirements for establishing this guidance in conformity with regulations for instituting an investigation into the circumstances of aircraft accidents and serious incidents in compliance with the provisions of ANO and that of Annex 13.
- b) This guidance shall apply to activities following accidents, serious incidents and incidents wherever they occur and shall apply when an aircraft is purchased, leased, chartered or interchanged and if Bangladesh discharges, in part, or in whole the functions and obligation of the State of registry.
- c) All correspondences related to Aircraft Accident, Serious Incident and/or Incident shall be made to the following:
  1. Head of Aircraft Accident Investigation Group, Bangladesh (AAIG-BD)  
Civil Aviation Authority of Bangladesh  
Headquarters, Kurmitola, Dhaka-1220  
Bangladesh  
Telephone (Hotline): +8802-8901881-83 (Please ask for Head of AAIG-BD);  
Head of AAIG-BD Cell: +8801715027508 (Subject to change).
  2. Member Secretary of Aircraft Accident Investigation Group, Bangladesh (AAIG-BD)  
Civil Aviation Authority of Bangladesh  
Headquarters, Kurmitola, Dhaka-1220  
Bangladesh  
Telephone (Hotline): +8802-8901881-83 (Please ask for Member Sy of AAIG-BD);  
Member Secretary of AAIG-BD Cell: +8801718152577 (Subject to change).

#### 2. ADOPTION OF ICAO DEFINITIONS, AMENDMENTS AND FILING OF DIFFERENCES IN ACCIDENT SERIOUS INCIDENT AND INCIDENT INVESTIGATION

- a) The AAIG-BD adopts the definitions as listed in ANO, the yearly amendments of Annex 13 and will file differences in case the amendments, due to some reason, will not be incorporated. In addition, the AAIG-BD shall make necessary amendments to portion of the 'Definitions' relevant to Aircraft Accident and Incident Investigation to remain at par with the up-to-date information on the 'Definitions' provided in ANO and that of Annex 13 in the following way:



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1. The Member Secretary of AAIG-BD will download from ICAO website the latest issue of ICAO Annex 13 on an yearly basis by 15 December of every calendar year and will keep record;
  2. Member Secretary of AAIG-BD will provide the current copy of Annex 13 to other members of the AAIG-BD Team including the Head of AAIG-BD ;
  3. The Member Secretary of AAIG-BD will look for any amendment issued by ICAO in Annex 13 on an yearly basis, during 15-31 December of every calendar year and will bring to the notice of the Head of AAIG-BD;
  4. The Member Secretary of AAIG-BD will prepare a draft of the amendment to be incorporated to the existing ANO-13 of CAAB;
  5. The Head of AAIG-BD will make necessary changes to the draft, if required and approve the draft amendment to be incorporated to the existing ANO-13 of CAAB;
  6. The Head of AAIG-BD will then notify in writing to Chairman, CAAB for the approval and incorporation of the amendment in ANO;
  7. Once approved by the Chairman, the Head of AAIG-BD will incorporate the amendment as applicable;
  8. The Head of AAIG-BD will ensure that such amendments are incorporated into ANO by 31 January of each calendar year;
  9. The Head of AAIG-BD will keep record of the date of amendment of ANO to this effect;
  10. Whenever an amendment is incorporated in ANO resulting from the amendments of Annex 13, the Head of AAIG-BD, assisted by the Member Secretary of AAIG-BD will adopt similar definitions and develop the compatible guidance to be practiced by both the AAIG-BD Team and the designated AAIT, as the case may be;
  11. Whenever the Head of AAIG-BD will realize that filling of difference will be required while incorporating any amendment of ICAO Annex 13 into ANO, he will advise the Member Secretary to prepare the draft of the difference to be intimated to ICAO. The Head of AAIG-BD will finalize the draft and ensure that the filing of difference will be accomplished in the OLF of CMA through the EFOD. This should be accomplished by 30 days following decision of filing difference given by the Head of AAIG-BD.
- b) Immediately after the completion of the amendment action, the amended document shall be uplifted in the ACCIDENT INVESTIGATION Main Heading of CAAB website [www.caab.gov.bd](http://www.caab.gov.bd) with a view to aiming that the information be disseminated to all concerned persons and agencies, as applicable, and this should be accomplished within a minimum possible time, by 28 February of each calendar year. The concerned persons and agencies are the operators, any prospective operators, service providers and all applicable aviation personnel, agencies organizations etc. usually associated with accident of aircraft. The companies/agencies/individuals receiving the information are required to update their documents reflecting the latest information displayed in the website and/or disseminated.



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### 3. INSTITUTING AN INVESTIGATION

On behalf of Bangladesh, the AAIG-BD shall institute an investigation into the circumstances of aircraft accidents and serious incidents in compliance with the provisions of ANO and that of Annex 13 in the following manner:

- a) With regard to the 'Power to make Rules for Investigation of Accident', the Civil Aviation Ordinance 1960 has specified the following in Clause 7, 'Quote' - 7. (1) The Government may, by notification in the Official Gazette, make Rules providing for the investigation of any accident arising out of or in the course of navigation-

1. In or over Bangladesh, of any aircraft; or
2. Anywhere, of aircraft registered in Bangladesh.

The Government of the Peoples' Republic of Bangladesh, has responded to the aforementioned Clause of the Civil Aviation Ordinance 1960 through an Official Gazette vide reference S.R.O-398-L/84, dated 30 September 1984 empowering Chairman Civil Aviation Authority, Bangladesh to conduct Investigation of Aircraft Accident. This has been documented through an Official Gazette vide reference S.R.O-398-L/84, dated 30 September 1984 in Part XIII of Civil Aviation Rules 1984 (CAR '84). Part XIII of CAR '84 addresses all the relevant issues related to the Investigation of Aircraft Accident. Part XIII encompasses a total of 22 Rules, starting from Rule 234 ending to 255 on accident investigation.

- b) The Government of Bangladesh, has accorded another authority through the same Official Gazette in Rule 3 of CAR '84, that specifies on the 'Responsibility of the Chairman as follows, Quote' – Rule 3. Responsibility of the Chairman:

1. The Chairman shall be responsible with the administration of these rules, and shall exercise such powers and perform such functions conferred on him by these rules.
2. The Chairman may by order in writing delegate and direct that any power and/or functions conferred or imposed by these rules on him, as the case may be, be exercised or performed on behalf of the Chairman by:
  - a. Any officer or authority subordinate to him, or
  - b. Any other person, 'Unquote'.



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- c) In order to give effect to the requirements of ICAO Annex 13 and Para 2.1.3 of Doc 9756 towards establishing an independent Aircraft Accident Investigation Agency, and with a view to ensuring that Aircraft Accident Investigation shall be accomplished independently and free from any conflict of interest, the Chairman has exercised the authority of Rule 3 (2) (a) and (b) by designating a 5-member specific Group, known as 'The Accident Investigation Group, Bangladesh' (AAIG-BD), headed by a highly experienced Senior Consultant in the areas of Operations, serving in the Authority on yearly contractual basis, to ensure conduct of investigation independently and with full authority.
- d) The Title of the Rule is, 'Aircraft Accident Enquiry', placed in Part XIII of CAR '84; Last amendment was done on 27 April 2009.
- e) The Title of the ANO is 'Aircraft Accident and Incident Investigation', Issue-00, Amendment-00, dated 30 June 2016.
- f) The Title of the Guidance is 'Guidance for accident investigation group of Bangladesh (AAIG-BD), developed in reference to ANO Part 13 aircraft accident and incident investigation version, 'Original'.

4. DESIGNATION OF AIRCRAFT ACCIDENT INVESTIGATION GROUP (AAIG-BD)

Pursuant to the 'Power to make Rules for Investigation of Accident' of the Civil Aviation Ordinance 1960, consequent to Rule 3 (2) (a) and/or (b) made by the Government empowering Chairman CAAB to conduct investigation and thereafter the ANO issued within this Compendium on Aircraft Accident Investigation wherein a specific Group has been designated by Chairman CAAB vide 'Office Order' 01/AAIG-BD; Reference CAAB/CS/32/AAIG-BD/01/MASTER, dated 27 June 2016 with specific power given to conduct Investigation INDEPENDENTLY, known as 'The Aircraft Accident Investigation Group' of Bangladesh (AAIG-BD), headed by an adequately experienced official of the Authority or such suitable person, called as 'Head of AAIG-BD, to ensures conduct of investigation into aircraft accident and serious incident independently, through an independent process and with full authority in compliance with provisions of ICAO Annex 13 in conducting the investigation on accident and/or serious incident. The AAIG-BD is independent from all other aviation organizations of Bangladesh and neither receives nor seeks instructions from any external source regarding the conduct of its investigations. The AAIG-BD has an exclusive accident investigation entity, empowered to appoint, for each accident and/or serious incident to be investigated, appropriately qualified and suitable Investigation Team known as Aircraft Accident Investigation Team (AAIT). The designation of AAIT is accomplished by the AAIG-BD in the following manner:





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- a) In Case of Bangladeshi Registered Aircraft Meeting with an Accident/Serious Incident within the Territory of Bangladesh:
1. Simultaneously with the actions being taken in accordance with the National/Airport Emergency Response Plans (ERP) as well as the National Search and Rescue Plans (SRP), the Head of AAIG-BD ensures to dispatch, in the shortest possible time, the required number of its own group member team, who themselves are qualified investigators, comprising members from Operations, Airworthiness and Human Performance (Medical, if required) to procure the first-hand information and, if able, to supervise the personnel conducting the ERPs and SRPs;
  2. Within the shortest possible time from the time of occurrence, the Head of AAIG-BD designates the AAIT, through issuance of a 'Memorandum' (Template of Memorandum is in Section 4.d) specifying the details of assignments to be performed by the AAIT during the period of investigation, comprising of the most compatible investigators specific to the type of investigation to be undertaken and engage the Team for investigation with minimum loss of time;
  3. Liaise with all concerned to facilitate for effective implementation of the investigation ensuring that the AAIT performs the investigation independently devoid of any conflict of interest.
- b) In Case of Bangladeshi Registered Aircraft Meeting with an Accident/Serious Incident outside the Territory of Bangladesh:
1. Soon after receipt of the notification from any person or agency, the Head of AAIG-BD designates the AAIT, at the shortest possible time, through issuance of a 'Memorandum' specifying the details of assignments to be performed by the AAIT during the period of investigation, comprising of the most compatible investigators specific to the type of investigation to be undertaken and engage the Team for investigation with minimum loss of time; and,
  2. In case the Head of AAIG-BD ascertains that an investigation has been started by the State of occurrence which is satisfactory up to the required standard, the Head of AAIG-BD designates the its AAIT members as accredited representatives, at the shortest possible time, to assist the investigators of the other State.



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- c) In Case of Foreign Registered Aircraft Meets with an Accident/Serious Incident within the Territory of Bangladesh:
1. Simultaneously with the actions being taken in accordance with the National/Airport Emergency Response Plans (ERP) as well as the National Search and Rescue Plans (SRP), the Head of AAIG-BD ensures to dispatch, in the shortest possible time, the required number of its own investigation team comprising the Operations, Airworthiness and Human Performance (Medical, if required) to procure the first-hand information and, if able, to supervise the personnel conducting the ERPs and SRPs;
  2. The Head of AAIG-BD sends 'Notification' as early as practicable, on the accident/serious incident to the State of Registration of the aircraft specifying the details of information as per the specific 'Form' which is in compliance with the requirements of ICAO Annex 13 as well as ANO (Part-C). The 'Template' of the Form is in Section 4.e);
  3. The Head of AAIG-BD designates the AAIT, at the shortest possible time, through issuance of a 'Memorandum' specifying the details of assignments to be performed by the AAIT during the period of investigation, comprising of the most compatible investigators specific to the type of investigation to be undertaken and engage the Team for investigation with minimum loss of time and continues with the investigation unless the investigation authority of the State of Registration takes over the control of investigation, having desired so.
- d) Template of the Memorandum:



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No. CAAB/CS/32/AIG/01/MASTER/

Date: [Day-Month-Year]

MEMORANDUM

Subject: INVESTIGATION INTO THE ACCIDENT/SERIOUS INCIDENT OF [Type of aircraft] AIRCRAFT NATIONALITY AND REGISTRATION MARK [Tail Number] OF [Name of Company] ON [Date/month/Year] AT [Place of occurrence]

1. In exercise of the power conferred under ANO, the following officials, are hereby appointed as Aircraft Accident/serious incident Investigation Team (AAIT) to investigate into the Aircraft accident as mentioned in the subject:

- a) [Insert name] - Investigator-in-Charge  
(IIC)  
[Insert Position]  
E-mail: [Insert Mail Address]  
Cell No. [Insert Cell No]
- b) [Insert name] - Member Secretary, AAIT  
[Insert Position]  
E-mail: [Insert Mail Address]  
Cell No. [Insert Cell No]
- c) [Insert name] - Member, AAIT  
[Insert Position]  
E-mail: [Insert Mail Address]  
Cell No. [Insert Cell No]
- d) [Insert name] - Member, AAIT  
[Insert Position]  
E-mail: [Insert Mail Address]  
Cell No. [Insert Cell No]



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e) [Insert name] - OJT, AAIT  
[Insert Position]

E-mail: [Insert Mail Address]

Cell No. [Insert Cell No]

2. The Head of AAIG-BD will hand over copy of this 'Memorandum', all necessary Documents, equipment, reports, evidences etc. so far collected in relation to this accident together with the 'Accident/Incident Notification' in documented form on all the actions taken by the AAIG-BD Team so far to the IIC of AAIT as soon as possible.
3. Terms of reference of the AAIT will be as under:
  - a) To inquire into the circumstances under which the accident took place;
  - b) To assess the damage to the aircraft, Injury to Human Souls, Property and Equipment;
  - c) To ascertain cause(s) of the incident;
  - d) To correspond with the concerned Operator(s), Flight Crews, Manufacturers, Public or any other Agency in relation to the Investigation;
  - e) To keep all Evidences, Correspondences and Reports in a systematic manner;
  - f) To maintain Confidentiality of the Proceedings of any Reports generated; and,
  - g) To recommend Safety Measure(s) to avoid such recurrence in future.

Note: The AAIT is reminded that the sole objective of the investigation of this accident or serious incident [Insert type] shall be the prevention of accidents, serious incidents and incidents and that it is not the purpose of the investigation to apportion blame or liability.

4. If required, for efficient conduct of the investigation, the AAIT may Co-opt one or more additional member(s) or any other member from home or abroad.
5. The AAIT shall exercise the power as per ANO and shall formulate the Preliminary/Initial and the Draft Final Report as per the approved Manual of Aircraft Accident and Serious Incident Investigation (AAIT).
6. The Preliminary/Initial and the Draft Final Report shall be submitted within 30 (Thirty) and 365 (Three Hundred Sixty Five) days respectively to the Head of AAIG-BD, both in Hard and Soft copies from the date of issue of this Memorandum.
7. If after the investigation has been closed, new and significant evidence become available, the Head of AAIG-BD shall re-open the investigation.



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8. Ensure that the investigation is conducted independently and impartially, devoid of any influence and/or interest what so ever, including CAA Bangladesh.
9. Should the AAIT need the engagement of advisors from CAAB or any other organization from within Bangladesh, the IIC will ensure that any possible conflicts of interest shall be avoided, in a manner that ensures no official from the CAAB or other relevant organization shall have any interest in conjunction with the accident.

[Insert Name]  
Head of AAIG-BD

Distribution (External):

1. As applicable
2. [Operator]

Distribution (Internal):

1. [As applicable]
2. Member Secretary, AAIG-BD: For kind information to Head of AAIG-BD.

e) Template of 'Notification':



# PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



## ACCIDENT INVESTIGATION GROUP OF BANGLADESH ACCIDENT/INCIDENT NOTIFICATION

|   |                                       |                                    |   |                                   |                                |
|---|---------------------------------------|------------------------------------|---|-----------------------------------|--------------------------------|
| Reference: CAAB/CS/32/AIG/01-MASTER/                |                                       |                                    |   | Date:                             |                                |
| Accident/Incident Type                              |                                       | ACCIDENT <input type="checkbox"/>  | SERIOUS INCIDENT <input type="checkbox"/> | INCIDENT <input type="checkbox"/> |                                |
| Operator Information                                |                                       |                                    | Owner Information                         |                                   |                                |
| Name  | Address                               |                                    | Name                                      | Address                           |                                |
|   |                                       |                                    |   |                                   |                                |
| Aircraft Information                                |                                       |                                    |   |                                   |                                |
| Manufacturer  | Nationality                           | Model                              | MSN                                       | Registration Number               |                                |
|   |                                       |                                    |   |                                   |                                |
| Engine  | Manufacturer                          |                                    | Type                                      | Model                             |                                |
|   |                                       |                                    |   |                                   |                                |
| Flight Crew Information                             |                                       | Flight Crew Status                 |   |                                   |                                |
| Flight Crew Position                                |                                       | Fatal                              | Seriously Injured                         | Injured                           | Not Injured                    |
| Pilot in Command                                    |                                       | <input type="checkbox"/>           | <input type="checkbox"/>                  | <input type="checkbox"/>          | <input type="checkbox"/>       |
| Co-pilot  |                                       | <input type="checkbox"/>           | <input type="checkbox"/>                  | <input type="checkbox"/>          | <input type="checkbox"/>       |
| Other Flight Crew (Nil)                             |                                       | <input type="checkbox"/>           | <input type="checkbox"/>                  | <input type="checkbox"/>          | <input type="checkbox"/>       |
| Cabin Crew Information                              |                                       | Cabin Crew Status                  |   |                                   |                                |
| Number of Cabin Crew                                |                                       | Fatal                              | Seriously Injured                         | Injured                           | Not Injured                    |
|   |                                       |                                    |   |                                   | <input type="checkbox"/>       |
| Passenger Information                               |                                       | Passenger Status                   |   |                                   |                                |
| Number of Passenger                                 |                                       | Fatal                              | Seriously Injured                         | Injured                           | Not Injured                    |
|   |                                       |                                    |   |                                   |                                |
| Flight Information                                  |                                       |                                    |   |                                   |                                |
| Schedule <input checked="" type="checkbox"/>        | Non-Schedule <input type="checkbox"/> | Chartered <input type="checkbox"/> |   | Cargo <input type="checkbox"/>    | Other <input type="checkbox"/> |
| Date  | Flight Number                         | Time of occurrence                 | Last point of Departure                   | Point of intended Landing         | Point of actual Landing        |
|   |                                       |                                    |   |                                   |                                |
| Position of the aircraft at the time of Occurrence  |                                       |                                    |   |                                   |                                |
| Ground <input type="checkbox"/>                     | Air <input type="checkbox"/>          | Sea <input type="checkbox"/>       | Remarks:                                  |                                   |                                |
| Description of the Accident or the Serious Incident |                                       |                                    |   |                                   |                                |
|   |                                       |                                    |   |                                   |                                |
| Extent of Damage so far known                       |                                       |                                    |   |                                   |                                |
|   |                                       |                                    |   |                                   |                                |
| Dangerous Goods on Board:                           |                                       |                                    | Yes <input type="checkbox"/>              | No <input type="checkbox"/>       |                                |
| Remarks:  |                                       |                                    |   |                                   |                                |
|   |                                       |                                    |   |                                   |                                |
| Name of the Official Reporting                      |                                       | Designation                        | Contact Details                           |                                   |                                |
|   |                                       |                                    | Address:                                  |                                   |                                |
|   |                                       |                                    | Cell No:                                  |                                   |                                |
|   |                                       |                                    | E-mail:                                   |                                   |                                |

END



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### 5. NOTIFICATION TO AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH

- a) Notification on aircraft accident or serious incident in the territory of a contracting State to aircraft of own State or other contracting State is the responsibility of the State of occurrence. Hence, any person becomes aware of any aircraft accidents and serious incidents within the territory of Bangladesh shall, by the most suitable and quickest means, provide notification of such aircraft accidents and serious incidents directly to any or the assigned member of the Accident Investigation Group of Bangladesh (AAIG-BD) for onward notification and/or investigation action by the AAIG-BD. The contact addresses, in full, have been outlined in section 1 c) of this Guidance as well as in website [www.caab.gov.bd](http://www.caab.gov.bd) (dedicated menu on Accident Investigation). The Member Secretary of AAIG-BD will ensure presence of the contact details including any updates and amendments in the address details at the soonest possible time in the mentioned website and in guidance.
- b) Notification to AAIG-BD shall be made in the following cases:
1. Accident involving a Bangladesh registered aircraft;
  2. Any aircraft accident that occurs in Bangladesh territory;
  3. The owner of the aircraft, the operator or hirer (if any) shall each be responsible for ensuring that a notification is furnished by the most suitable and quickest means directly and immediately after the accident, serious incidents or incident followed by a written report to the Head of AAIG-BD; and,
  4. Any pilot observing any aircraft accident, serious incidents or incident in Bangladesh shall report the same in the similar way and in details to the Head of AAIG-BD.
- c) In order to ensure that the AAIG-BD receives such notification in the shortest possible time, the Head of AAIG-BD circulates a notice in the CAAB website under a dedicated heading namely, 'Accident Investigation' providing information for the public to contact the Head or any member of the AAIG-BD for notifying on the occurrence. Additionally, the Head of AAIG-BD issues Office Order and circulates the same to all Airport Managers of Bangladesh for the onward intimation to all ATC/Area Controllers to contact the Head or any member of the AAIG-BD for notifying on the occurrence in the shortest and quickest possible time. Thereon, the AAIG-BD will proceed for investigation.

### 6. NOTIFICATION BY THE ACCIDENT INVESTIGATION AUTHORITY

- a) In the event of any aircraft accident that occurs in Bangladesh territory, the Head of AAIG-BD dispatches, in the shortest possible time, the required number of its own group member team, who themselves are qualified investigators, comprising members from Operations, Airworthiness and Human Performance (Medical, if required) to procure the first-hand information and compiles a 'Notification' for dissemination to relevant persons, agencies and others.





## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- b) In the event of any Bangladeshi Registered aircraft accident that occurs in outside the Bangladesh territory, the Head of AAIG-BD collects the required 'Notification' form the state of occurrence and/or dispatches, in the shortest possible time, the required number of its own group member team, who themselves are qualified investigators, comprising members from Operations, Airworthiness and Human Performance (Medical, if required) to procure the first-hand information.
- c) Having constructed and/or received the 'Notification' as in a) and b) above, the Head of AAIG-BD forwards a notification of an accident, serious incident or incident 'Notification', with minimum of delay by the most suitable and quickest means available, to the following:
1. State of registry in case of foreign aircraft;
  2. State of operator in case of foreign operator;
  3. State of design;
  4. State of manufacture;
  5. International Civil Aviation Organization, when the aircraft involved is of a maximum mass of over 2250 kg; and,
  6. The concerned Operator of the aircraft.
- d) When Bangladesh is not the State of occurrence of an accident or serious incident but is the State of registry or the State of operator of the aircraft, the Head of AAIG-BD forwards 'Notification' of the accident or serious incident occurring outside the territory of Bangladesh and/or in a non-contracting State or outside the territory of any contracting State or where the State of occurrence is not aware of the accident or serious incident, to;
1. All the States involved;
  2. International Civil Aviation organization (ICAO);
  3. The Ministry of Aviation & Tourism, Government of Bangladesh;
  4. Chairman CAA Bangladesh;
  5. The concerned Operator whenever possible.

### 7. CONDUCT OF INVESTIGATION IN COMPLIANCE WITH ANNEX-13

- a) 'The Accident Investigation Group' of Bangladesh (AAIG-BD) will conduct an investigation into aircraft accident and serious incident is accomplished in compliance with ANO as well as Annex 13 in the following way:
1. Independently, wherein the 'Terms and conditions' is outlined in the Memorandum in a manner that the delegated investigators conduct the investigation through evidences and statements received enjoying the full privilege of non-interference and influence from any external source what so ever;





## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



2. By adequately qualified aircraft accident investigators, wherein the AAIG-BD lists down the names of the investigator(s), as specified in 6 b), pursuant to the training received and experience gained in the area of aircraft accident investigation and designate the AAIT depending on the type and nature of occurrence; and,
  3. With full authority, wherein the investigators use the provisions of ANO and ICAO Annex 13 in conducting the investigation.
- b) The AAIG-BD ensures, as far as practicable, that the designated investigators forming AAIT will have the following criteria met in the areas of OPS, Airworthiness, ATS, Human Performance and/or any other discipline, prior to assigning them for a specific type of investigation:

### 1. Accident of Hull Loss in nature:

- a. Have been in the aviation arena, either in civil or in military, for minimum Ten (10) years, have been through the CAAB or internationally endorsed Accident Investigation Basic and Advanced Courses and have experience of having conducted at least one major investigations as at least a member of the Aircraft Accident Investigation Team (AAIT);
- b. OR, Have been in the aviation arena, either in civil or in military, for minimum Fifteen (15) years, have been through the CAAB or internationally endorsed Accident Investigation Basic Course and have experience of having conducted at least one major investigations as at least a member of the Aircraft Accident Investigation Team (AAIT);

### 2. Accident but not of Hull Loss in nature:

- a. Have been in the aviation arena, either civil or military, for minimum Five (05) years, have been through the CAAB endorsed Accident Investigation Basic and Advanced Courses and have completed, at least, one equivalent type of investigation as at least a member of the AAIT;
- b. OR, Have been in the aviation arena, either civil or military, for minimum Ten (10) years, have been through the CAAB endorsed Accident Investigation Basic Course and have completed, at least, one equivalent type investigation as at least a member of the AAIT.



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### 3. Serious Incident:

Have been in the aviation arena, either civil or military, for minimum Five (05) years, have been through the CAAB endorsed Accident Investigation Basic Course and have completed, at least, one equivalent type of investigation as at least once as OJT of the AAIT.

### 8. OBJECTIVE OF INVESTIGATION

The AAIG-BD emphasizes through instruction in the form of a 'Note' in the 'Memorandum' which it hands over to the IIC of AAIT wherein it will mention that the sole objective of the investigation of an accident or serious incident or incident shall be the prevention of accidents, serious incidents and incidents and that it is not the purpose of the investigation to apportion blame or liability. Hence, while submitting the Preliminary as well as the Final Report on the investigation, the IIC is to ensure that report does not contain any indication of apportioning blame or liability to any person or agency.

### 9. AMENDMENT OF REGULATIONS ON ACCIDENT INVESTIGATION

- a) The Head of AAIG-BD ensures that amendments of ANO is effected in a timely manner whenever amendments to ICAO Annex 13 is received. This is accomplished in the following manner:
  1. The Member Secretary of AAIG-BD will download from ICAO website the latest issue of ICAO in Annex 13 on an yearly basis by 15 December of every calendar year and will keep record;
  2. Member Secretary of AAIG-BD will provide the current copy of Annex 13 to other members of the AAIG-BD Team including the Head of AAIG-BD ;
  3. The Member Secretary of AAIG-BD will look for any amendment issued by ICAO in Annex 13 on an yearly basis, during 15-31 December of every calendar year and will bring to the notice of the Head of AAIG-BD on the 'change' or 'no change' of the Annex 13;
  4. The Member Secretary of AAIG-BD will prepare a draft of the amendment to be incorporated to the existing ANO-13 of CAAB;
  5. The Head of AAIG-BD will make necessary changes to the draft, if required and approve the draft amendment to be incorporated to the existing ANO-13 of CAAB;
  6. The Head of AAIG-BD will then notify in writing to Chairman, CAAB for the approval and incorporation of the amendment in ANO;
  7. Once approved by the Chairman, the Head of AAIG-BD will incorporate the amendment as applicable;
  8. The Head of AAIG-BD will ensure that such amendments are incorporated into ANO by 31 January of each calendar year;



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9. The Head of AAIG-BD will keep record of the date of amendment of ANO to this effect; and,
  10. Whenever an amendment is incorporated in ANO resulting from the amendments of Annex 13, the Head of AAIG-BD, assisted by the Member Secretary AAIG-BD will develop the compatible guidance to be practiced by both the AAIG-BD Team and the designated AAIT, as the case may be.
- b) Immediately after the completion of the amendment action, the amended document shall be uplifted in the ACCIDENT INVESTIGATION Main Menu of CAAB website [www.caab.gov.bd](http://www.caab.gov.bd) with a view to aiming that the information be disseminated to all concerned persons and agencies, as applicable, and this should be accomplished within a minimum possible time, by 15 January of each calendar year. The concerned persons and agencies are the operators, any prospective operators, service providers and all applicable aviation personnel, agencies organizations etc. usually associated with accident of aircraft. The companies/agencies/individuals receiving the information are required to update their documents reflecting the latest information displayed in the website and/or disseminated.
10. IDENTIFYING AND NOTIFYING DIFFERENCES OF REGULATIONS ON ACCIDENT INVESTIGATION
- a) Normally, the AAIG-BD shall discourage incorporation of any policy other than those outlined in the Annexes 13 to the convention in the form of Standards or Recommendation Practices (SARPs). However, should the Head of AAIG-BD intends to develop and implement a policy other than or different from those in the Annexe 13, the Head of AAIG-BD will execute the same in the following manner:
1. Sit with the AAIG-BD Team to identify any difference(s) or make any changes;
  2. If so identified, a schedule specifying target dates for implementation will be announced through the minute of the meeting;
  3. The Member Secretary AAIG-BD will prepare the new or the amended draft within the stipulated schedule and place it for the review of the Head of AAIG-BD;
  4. The Head of AAIG-BD will review and approve the draft;
  5. The Head of AAIG-BD will bring the draft for the approval of the Chairman Civil Aviation Authority;
  6. The Head of AAIG-BD will incorporate into ANO the approved text;
  7. The Member Secretary of AAIG-BD will uplift the amendment in the ACCIDENT INVESTIGATION Main Menu of CAAB website [www.caab.gov.bd](http://www.caab.gov.bd) with a view to aiming that the information be disseminated to all concerned persons and agencies, as applicable, and this should be accomplished within a minimum possible time, preferably within 15 days of the approval accorded by the Chairman, CAAB;
  8. Member Secretary AAIG-BD will keep record of the amendments; and,



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9. The Head of AAIG-BD will ensure that the differences are filed through the Continuous Monitoring Approach, On-line Framework (CMA OLF), preferably within 15 days of the approval accorded by the Chairman, CAAB.
- b) The AAIG-BD Team will observe through frequent visits to CAAB website [www.caab.gov.bd](http://www.caab.gov.bd) ensuring that the intended information are always displayed in the dedicated web page.

11. POWERS OF THE INVESTIGATORS

- a) For the purpose of investigation, in all cases, the IIC shall be from the AAIG-BD who should be detailed by the Head of the AAIG-BD. The IIC and/or any member of the AAIG-BD when detailed by the Head of AAIG-BD and/or engaged as accredited representatives shall have unhampered access to and control over the scene of the accident and the wreckage. In case of some particular situation wherein the circumstances reveal for the requirement of any judicial investigations associated with accident investigation, the investigators will comply with the requirement of ANO (Part-C) as well as Annex 13. Essentially, AAIG-BD shall establish MoU with the relevant judicial authority, specifying to have priority for the AIG Investigation.
- b) The IIC as well as all the investigators of the AAIT, designated by the AAIG-BD will have unhampered access to and control over all relevant material/evidence, including flight recorders and air traffic service (ATS) records.
- c) Any member of the AAIG-BD when acting as IIC or investigator and any member of the designated AAIT and/or the designated IIC will have the power to carry out detailed examination of relevant material/evidence without delay.
- d) Other powers of the members of the AAIG-BD, when acting as IIC or a member of AAIT as well as those of the AAIT are as follows:
  1. Unhampered access to the wreckage and control over all relevant materials/ evidence, including flight records and ATS record and will have unrestricted control over it to ensure that a detailed examination can be made without delay by the investigators or authorized personnel participating in the investigation;
  2. Summon any person or witness;
  3. Take evidence on oath or affirmation;
  4. Request for submission of documents or any part, or component or an aircraft relevant to the investigations;
  5. Request for all or any flight crew members of the aircraft involved in the accident or incident to undergo medical examination promptly after the occurrence by a physician,



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preferably experienced in accident investigation. These examinations should be expeditious.

6. Where an investigator has required the production of a document or a part or component of an aircraft relevant to the investigation, he may retain the document, part or component of the aircraft, as the case may be, for such period as it is necessary for the purpose of the investigation and may take copies of, or take extracts from, the documents so produced or retained.
7. A summon shall be in writing under the hand of the investigator and shall specify the time and place for taking of evidence and the documents and the part or components of an aircraft (if any) required to be produced.
8. A summon may be served either personally on the person to be served or by prepaid registered letter addressed to the person at his last known place of abode or business.
9. Carry out detailed examination of relevant material/evidence without delay.

### 12. TASKS OF THE INVESTIGATORS

- a) The investigators designated by the Head of AAIG-BD shall have independence in the conduct of the investigation and unrestricted authority over its conduct, consistent with the provisions of the ANO (Part-C). Any member of the AAIG-BD and any member of the AAIT designated by the AAIG-BD to conduct investigation shall have the task of taking statements from witnesses.
- b) Other tasks of the members of the AAIG-BD, when acting as a member of AAIT as well as those of the AAIT are as follows:
  1. The gathering, recording and analysis of all available information on that accident or serious incident;
  2. If appropriate, the issuance of safety recommendations, either interim or following completion of the investigation;
  3. If possible, determination of cause of the accident or serious incident without apportioning blame or liability to any person or agency;
  4. Any judicial or administrative proceeding to apportion blame or liabilities shall be separated from any investigation conducted;
  5. The completion of final report by the stipulated time. In case the final report cannot be provided within a period of one year, a yearly progress report should be submitted;
  6. The scene of the accident shall be visited, the wreckage examined and statements taken from witness. All evidences to this effect should be collected and kept for analysis and arriving at conclusions on the investigation;



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7. Effectiveness shall be made of Flight Recorder in the investigation of an accident or serious incident. Operator of the aircraft on which accident or incident has occurred shall arrange for read out of the Flight Recorder without delay. In the event that the operator does not have adequate facilities to read out the Flight Recorder, the operator may use the facilities made available to such facilities by other state, giving consideration to the capabilities of the read-out facilities, the timelines of read-out and the location of read-out facilities.
8. The investigators designated by the Head of AAIG-BD and conducting the investigation into a fatal accident shall arrange for complete autopsy examination of fatally injured flight crews and, subject to the particular circumstances, of fatally injured passengers and cabin attendants, by a pathologist, preferably experienced in an accident investigation. These examinations shall be expeditions and complete.
9. The investigators conducting the investigation shall recognize the need of coordination between the investigator-in-charge/chief investigator and the judicial authorities. Particular attention shall be given to evidence which requires prompt recording and analyzing for the investigation to be successful, such as the examination and identification of victims and read-out of Flight Recorder recordings.
10. If in the course of investigation it becomes known or it is suspected that an act of unlawful interference was involved, the investigator in-charge/chief investigator shall have to initiate action to ensure that the concerned aviation security authorities of CAAB are informed.
11. If it appears to the investigator that the investigation may result in framing charge against any person for an offence or in the cancellation of any license or certificate issued or of a rating or other endorsement endorsed in a license or certificate issued, the investigators shall give that person or holder of that license or certificate an opportunity of making any statement or given any evidence and calling witness on his behalf.

### 13. NON-DISCLOSURE OF RECORDS

The investigators conducting the investigation of an accident or serious incident should maintain the confidentiality of the CVR records hence, should not make the CVR records available for purposes other than accident or serious incident investigation, unless the AAIG-BD would determine that their disclosure outweighs the adverse domestic and international impact such action may have on that or any future investigation. The investigators conducting the investigation, therefore, keep continuous liaison with the AAIG-BD for advice related to the readout of the records of the CVR. However, while doing so, the investigators shall not seek any advice from the AAIG-BD on the interpretation on the CVR records wherein the decision making by the investigators may lead to erroneous direction thus the affecting the finding of the investigation.





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### 14. NON DISCLOSURE OF INFORMATION GATHERED

- a) The investigators conducting the investigation of an accident or serious incident shall not make the CVR records and CVR recordings available for purposes other than accident or serious incident investigation, unless the Head of AAIG-BD determines that their disclosure outweighs the adverse domestic and international impact such action may have on that or any future investigation. The CVR records and CVR recordings shall be included in the final report or its appendices only when pertinent to the analysis of the accident or incident. Parts of the records not relevant to the analysis shall not be disclosed.
- b) Other points of non-disclosure by the investigators are as follows:
  - 1. All statements taken from persons by the investigators in the course of their investigation;
  - 2. All communication between persons having been involved in the operation of the aircraft;
  - 3. Medical or private information regarding persons involved in the accident or incident;
  - 4. Cockpit voice recordings and transcripts from such recordings;
  - 5. Recordings and transcriptions of recordings from air traffic control units; and,
  - 6. Opinion expressed in the analysis of information including flight recorder information.

### 15. REOPENING OF THE INVESTIGATION

- a) If after the investigation has been closed, but new and significant evidence become available, the Head of AAIG-BD will advise the designated AAIT to re-open the investigation to provide revised findings and recommendations, if applicable.
- b) In case the new and significant evidences contribute to the cause of the accident or serious incident, the report should be prepared accordingly and appropriate safety recommendations should be outlined for preventing recurrences of similar accident or serious incident in future.

### 16. INFORMATION ON ACCIDENTS AND INCIDENTS

- a) The AAIG-BD will provide with all the relevant information available on request from any State conducting the investigation of an accident or serious incident.
- b) The AAIG-BD will provide information on 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.



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- c) Bangladesh as the State of registry and/or the State of operator, upon request from other State conducting the investigation, the AAIG-BD will provide pertinent information on any organization whose activities may have directly or indirectly influenced the operation of aircraft.

### 17. RIGHTS OF PERSON WHO MAY BE CHARGED

While conducting investigation on an accident or serious incident, if it appears to the AAIT that the investigation may result in framing a charge against any person for an offence or in the cancellation of any license or certificate or of a rating or other endorsed in a license or certificate or of rating or other endorsed in a license or certificate, the AAIT will give that person or the holder of that license or certificate, an opportunity of making any statement or giving any evidence and calling witness on his behalf. However, during the process of investigation, if the AAIT feels, in the interest of safe operation of flights, that such license holder is required to be abstained from performing their normal functioning, the AAIT will have the discretion to execute such advice until the AAIT feels otherwise. In this case, the rights of non-adherence by the incumbent person will be unaccepted by the AAIT.

### 18. PARTICIPATION OF ACCREDITED REPRESENTATIVES FROM OTHER STATES

- a) In case an accident/incident occurs to a Bangladesh registered aircraft in a foreign State, upon receipt of notification from the State of occurrence, the Head of AAIG-BD will provide pertinent information to that Operator of that Bangladesh registered aircraft as the operator's activities may have directly or indirectly involved the operation of aircraft;
- b) Whenever an investigation is conducted within Bangladesh under the directive of AAIG-BD, the Head of AAIG-BD will ensure that Bangladesh as the State conducting the investigation will safeguard the participation of accredited representatives from other States involved in the aircraft accident. One out of many scenarios that usually takes place is, when a Bangladeshi operator operates a foreign registered aircraft on lease or operates with foreign licensed flight crew on validation. The AAIG-BD/AAIT will invite accredited representatives from 1. State of Registry, 2. State of Operator, 3. State of Design, 4. State of Manufacture and/or 5. Any other State which, may provide information, facilities or experts replacing etc.;
- c) Where an accident/incident occurs to a Bangladesh registered aircraft in a foreign state, the Head of AAIG-BD will appoint accredited representatives to participate in the investigation if conducted by the State of occurrence. In this case the AAIG-BD will form, in the soonest possible time, a panel of investigators under a 'Memorandum' and dispatch them, at the earliest possible time, to join the investigation team conducted by the State of occurrence;





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- d) While appointing the accredited representatives as in 18 c), the Head of AAIG-BD will discuss with the relevant operator to appoint one or more advisers from the operators, if proposed by the operator to assist the accredited representatives;
- e) The Head of AAIG-BD will have the power to appoint any number of accredited representatives which may encompass representative-investigators from Operations, Airworthiness, ATS, Medical etc. and will also be entitled to appoint one or more advisers from the affected operator to assist the accredited representatives in the investigation;
- f) The Advisers assisting accredited representatives shall be permitted, under the accredited representative's supervision, to participate in the investigation to the extent necessary to enable accredited representatives to make their participation effective;
- g) The participation by the accredited representatives and/or the advisors in the investigation of accidental Bangladesh registered aircraft in a foreign State shall confer entitlement to participate in all aspects of the investigation, under the control of the Investigator-in-charge (IIC) or equivalent of the State of occurrence in particular to:
  - 1. Visit the scene of the accident/incident, one or more times;
  - 2. Examine the wreckage to the extent possible;
  - 3. Obtain written information and suggest areas of questioning;
  - 4. Have full access to all relevant evidence as soon as possible;
  - 5. Receive copies of all pertinent documents;
  - 6. Participate in read-outs of recorded media, such as the ATC tape, the CVR and FDR;
  - 7. Participate in off-scene investigative activities such as components examinations, technical briefings, tests and simulations;
  - 8. Participate in investigation progress meeting including deliberations related to analysis, findings, causes and safety recommendations; and,
  - 9. Make submissions in respect of the various elements of the investigation.

### 19. FUNCTIONS OF THE ACCREDITED REPRESENTATIVES AND ADVISERS

- a) The Accredited Representatives and Advisers, appointed by the AAIG-BD in the event of an accident or serious incident occurring to a Bangladesh registered aircraft in foreign State:
  - 1. Will provide the State conducting the investigation with all relevant information available to them;
  - 2. will not divulge information on the process and the findings of the investigation without the express consent of the State conducting the investigation.



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- b) The Head of AAIG-BD will, on request from the State of occurrence conducting the investigation, furnish that State authority or equivalent agency with all relevant information, as applicable;
- c) It is obligatory that the State of registry for foreign registered aircraft, the State of operator, Bangladesh registered aircraft in foreign state, the State of design, and the State of manufacture should acknowledge the receipt of notification of an accident or serious incident. With this end in view, when AAIG-BD prepares and sends the 'Notification' to the State of registry, the State of operator, the State of design and the State of manufacture etc. it should look forward to reply from the addressees. Once received, the AAIG-BD will maintain records of such receipts. In the similar manner, if the AAIG-BD receives any 'Notification' from other States, it will send appropriate acknowledgement of having received the notification;
- d) If Bangladesh is the State of registration, the Head of AAIG-BD will provide the State of occurrence with any relevant information available regarding the aircraft and flight crews involved in the accident or serious incident, along with name (s) and contact detail of the accredited representative as well as their expected date of arrival to the State of occurrence. The following 'Template' will be used by the AAIG-BD to furnish such information:

ACCIDENT INVESTIGATION GROUP OF BANGLADESH (AAIG-BD)  
INFORMATION BY STATE OF REGISTRATION ON ACCIDENT/SERIOUS INCIDENT  
(DISPATCHED TO THE STATE OF OCCURRENCE)

| HEADS ON THE INFORMATION                             | INFORMATION |
|--|-------------|
| Aircraft (Type/REG/MSN)                              |             |
| All Flight Crew (Names/Addresses/E-Mails)            |             |
| All Cabin Crew (Names/Addresses/E-Mails)             |             |
| Number of Passengers (Adult/Child/Infant)            |             |
| Accredited Representatives (Names/Addresses/E-Mails) |             |
| Advisors (Names/Addresses/E-Mails)                   |             |
| Details on Dangerous Goods                           |             |
| Message Originator (Name/Address/E-Mail)             |             |

- e) The Head of AAIG-BD, upon receipt of notification on an accident or serious incident of Bangladesh Registered aircraft in foreign State from the State of occurrence, will provide the State of occurrence with details of dangerous goods on board the aircraft (if any) within minimum delay and by the most suitable and quickest means available;



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- f) When an accident or serious incident to a Bangladesh registered aircraft has occurred in the territory of a non-contracting State which does not intend to conduct an investigation and/or conduct an investigation in co-operation with the non-contracting State of occurrence but failing such co-operation, The AAIG-BD will itself conduct an investigation when such information is available.

### 20. ORGANIZATIONAL STRUCTURE OF AAIG-BD

- a) Chairman CAAB, under the provisions of Bangladesh Ordinance 1960 as well those of Rule 3 of CAR '84, has delegated the responsibility for the execution of Part XIII of CAR '84 that deals with Aircraft Accident Enquiry, to the Head of Accident Investigation Group of Bangladesh (AAIG-BD);
- b) The Head of AAIG-BD selects a group of experienced persons to form the Accident Investigation Group of Bangladesh (AAIG-BD). Together with the selected personnel, so proposed by the Head of AAIG-BD, the Head of AAIG-BD will administer, regulate and control the accomplishment of an independent accident investigation, should an aircraft serious incident or accident occur inside the territory of Bangladesh;
- c) The development of, and the Organizational Structure of AAIG-BD has been formulated in the following manner. The Head of AAIG-BD will prepare and publish in ACCIDENT INVESTIGATION Manu Page of [www.caab.gov.bd](http://www.caab.gov.bd) the list of Investigators in accordance with category 1) Accident of Hull Loss in nature; 2) Accident but not of Hull Loss in nature; 3) serious Incident; and ad-hoc.

### FORMATION OF AAIG-BD

| PRIMARY AVIATION<br>LEGISLATION<br>BANGLADESH<br>ORDINANCE 1960  | SPECIFIC<br>OPERATING<br>REGULATIONS<br>CAR 1984 | CAR 1984, PART XIII<br>AIRCRAFT ACCIDENT<br>ENQUIRY | CAR 1984<br>RULE 3<br>CHAIRMAN'S<br>RESPONSIBILITY |
|--|--|---|--|
| <p>1. With regard to the 'Power to make Rules for Investigation of Accident', the Civil Aviation Ordinance 1960 has specified the following in Clause 7, 'Quote' - 7. (1) The Government may, by notification in the Official Gazette, make Rules providing for the investigation of any accident arising out of or in the course of navigation-</p> <p>3. In or over Bangladesh, of any aircraft; or</p> <p>4. Anywhere, of aircraft registered in Bangladesh.</p> <p>2. The Government of the Peoples' Republic of Bangladesh, has responded to the aforementioned Clause of the Civil Aviation Ordinance 1960 through an Official Gazette vide reference S.R.O-398-</p> |  |   |  |



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L/84, dated 30 September 1984 empowering Chairman Civil Aviation Authority, Bangladesh to conduct Investigation of Aircraft Accident. This has been documented through an Official Gazette vide reference S.R.O-398-L/84, dated 30 September 1984 in Part XIII of Civil Aviation Rules 1984 (CAR '84). Part XIII of CAR '84 addresses all the relevant issues related to the Investigation of Aircraft Accident. Part XIII encompasses a total of 22 Rules, starting from Rule 234 ending to 255 on accident investigation.

3. The Government of Bangladesh, has accorded another authority through the same Official Gazette in Rule 3 of CAR '84, that specifies on the 'Responsibility of the Chairman as follows, Quote' – Rule 3. Responsibility of the Chairman:
4. The Chairman shall be responsible with the administration of these rules, and shall exercise such powers and perform such functions conferred on him by these rules.
5. The Chairman may by order in writing delegate and direct that any power and/or functions conferred or imposed by these rules on him, as the case may be, be exercised or performed on behalf of the Chairman by:
  - c. Any officer or authority subordinate to him, or
  - d. Any other person, 'Unquote'.
6. In order to give effect to the requirements of ICAO Annex 13 and Para 2.1.3 of Doc 9756 towards establishing an independent Aircraft Accident Investigation Agency, and with a view to ensuring that Aircraft Accident Investigation shall be accomplished independently and free from any conflict of interest, the Chairman has exercised the authority of Rule 3 (2) (a) and (b) by designating a 5-member specific Group, known as 'The Accident Investigation Group, Bangladesh' (AIG-BD), headed by a highly experienced Senior Consultant in the areas of Operations, serving in the Authority on yearly contractual basis, to ensure conduct of investigation independently and with full authority.
7. The Title of the Rule is, 'Aircraft Accident Enquiry', placed in Part XIII of CAR '84; Last amendment was done on 27 April 2009.
8. The Title of the ANO is 'Aircraft Accident and Incident Investigation', placed in ANO of the Compendium commonly known as 'ANO (Part-C)', 'Issue-1' done on 30 June 2016.
9. The Title of the Guidance is 'Guidance for Aircraft accident investigation group of Bangladesh (AAIG-BD), developed in reference to ANO on aircraft accident and incident investigation, 'Issue-1' done on 30 June 2016.



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ORGANIZATIONAL STRUCTURE OF AAIG-BD

AAIG-BD TOTAL PANEL

(Will be maintained in AAIG-BD Folder)

Chairman  
Civil Aviation Authority, Bangladesh  
Has Delegated Total Responsibility of Part XIII of CAR 1964 (Aircraft Accident Inquiry)  
To  
Accident Investigation Group of Bangladesh Delegated Panel  
(AAIG-BD DELEGATED PANEL)

STRENGTH/POOL OF AAIG-BD DELEGATED PANEL (ALL TYPES OF ACCIDENT/INCIDENT)

01 Investigator as Head of AAIG-BD (OPS) – [Insert Name]  
01 Investigator as Deputy Head of AAIG-BD (Other Discipline) – [Insert Name]  
02 Investigators as Member Secretary (1 & 2) of AIG-BD (Any Discipline) – [Insert Names]  
01 Investigator as Member of AIG-BD (AIR) – [Insert Name]  
01 Investigator as Member of AIG-BD (Other Discipline) – [Insert Name]  
01 Investigator as Member of AIG-BD (Legal) – [Insert Name]

A. STRENGTH/POOL OF AAIT PANEL (ACCIDENT OF HULL LOSS IN NATURE)

02 Investigators (OPS) – [Insert Names]  
02 Investigators (AIR) – [Insert Names]  
02 Investigators (Other Discipline) – [Insert Names]

B. STRENGTH/POOL OF AAIT PANEL (ACCIDENT BUT NOT OF HULL LOSS IN NATURE)

02 Investigators (OPS) – [Insert Names]  
02 Investigators (AIR) – [Insert Names]  
02 Investigators (Other Discipline) – [Insert Names]

C. STRENGTH/POOL OF AAIT (SERIOUS INCIDENT)

04 Investigators (OPS) – [Insert Names]  
04 Investigators (AIR) – [Insert Names]  
06 Investigators (Other Discipline) – [Insert Names]

D. STRENGTH/POOL OF AAIT (INCIDENT)

02 Investigators (OPS) – [Insert Names]  
02 Investigators (AIR) – [Insert Names]  
02 Investigators (Other Discipline) – [Insert Names]



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21. RECRUITMENT/SELECTION AND JOB DESCRIPTION OF AAIG-BD AND AAIT

- a) Section 20 specifies the selection status of the Head of AAIG-BD as well as other members of the Delegated Panel who will be delegated by the Chairman CAAB. As specified in ANO (Part-C), the members of the Panel should have the following requirements fulfilled:
1. The Head of AAIG-BD will have Operations background and considerable knowledge in the field of management of accident investigation. For the purpose of recruitment or selection, the prospective Head of AAIG-BD should have vast airline flying experience, possibly not less than 10,000 hours of flying experience, having held administrative knowledge as airline executive, excellent judgment skill, have at least completed Accident Investigation Basic Course and have the experience of conducting minimum five (05) accidents and/or serious incidents as an IIC or member of AAIT;
  2. The Deputy Head of AAIG-BD may come from any discipline and should have preferably adequate administrative knowledge as airline or Civil Aviation Authority executive, excellent judgment skill, may have at least completed Accident Investigation Basic Course and have the experience of conducting minimum two (02) accidents and/or serious incidents as an IIC or member of AAIT;
  3. The Member Secretary AAIG-BD may come from any discipline and should have adequate administrative knowledge as airline or Civil Aviation Authority executive, good judgment skill, may have at least completed Accident Investigation Basic Course and have the experience of conducting minimum two (02) accidents and/or serious incidents as a member of AAIT;
  4. Member of AAIG-BD (AIR) shall come from Engineering background from the airlines or Airworthiness background from the CAA with minimum 10 years of extensive experience, having held administrative knowledge as airline or CAA executive, excellent judgment skill, have at least completed Accident Investigation Basic Course and have the experience of conducting minimum two (02) accidents and/or serious incidents as an IIC or member of AAIT;
  5. Member of AAIG-BD (Other Discipline) may come from any discipline and should have preferably adequate administrative knowledge as airline or Civil Aviation Authority executive, good judgment skill, may have at least completed Accident Investigation Basic Course and have the experience of conducting minimum two (02) accidents and/or serious incidents as an IIC or member of AAIT.





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b) Section 13 specifies the selection status of the Investigator Panel of AAIG-BD for different criteria of investigations such as 'Accidents of Hull Loss in nature', 'Accidents but Not of Hull Loss in nature', Serious Incidents etc. Human being, by instinct, is an investigator. The only impetus required for a human being to be an effective investigator in the line of business is his background knowledge on the subject of investigation. The investigators for all cases of aircraft accident and serious incident investigations will be delegated by the Head of AAIG-BD based on the level of knowledge and experience already possessed by the delegated personnel. As appended below, the Head of AAIG-BD establishes minimum qualifications and experience requirements for aircraft accident investigators, such as, the required qualifications for the recruitment of investigators (in the case of full-time investigators) or for the designation of investigators (in the case of 'occasional investigators'). Such requirements include, 1) Knowledge and practical experience in civil aviation (as pilot, engineer, air traffic controller or other areas of expertise) and 2) in the case of occasional investigators, investigation courses and practical experience in investigations. Hence, the IICs and the members of the investigator panels will have the following requirements fulfilled:

1. The IIC for Category A type of accident (Accidents of Hull Loss in nature), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Operations background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective IIC should have vast airline flying experience, possibly not less than 10,000 hours of flying experience, having held administrative knowledge as airline executive, excellent judgment skill, have preferably completed Accident Investigation Basic and Advance Courses, have the experience of conducting minimum three (03) accidents and/or serious incidents as an IIC AAIT;
2. Investigator (AIR) for Category A type of accident (Accidents of Hull Loss in nature), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Airline Engineering or CAA Airworthiness background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective Investigator (AIR) should have vast airline or CAA Airworthiness experience, having held administrative knowledge as airline or CAA executive, excellent judgment skill, have preferably completed Accident Investigation Basic and Advance Courses, have the experience of conducting minimum three (03) accidents and/or serious incidents as an Member (AIR) of AAIT;
3. Investigator (Other Discipline) for Category A type of accident (Accidents of Hull Loss in nature), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Airline or CAA (Compatible Discipline) background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective Investigator (Other Discipline) should have vast airline or CAA (Compatible Discipline) experience, having held administrative knowledge as airline or CAA executive,



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excellent judgment skill, have preferably completed Accident Investigation Basic Course, have the experience of conducting minimum two (02) accidents and/or serious incidents as an Investigator (Other Discipline) of AAIT;

4. The IIC for Category B type of accident (Accidents but Not of Hull Loss in nature), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Operations background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective IIC should have vast airline flying experience, possibly not less than 8,000 hours of flying experience, having held administrative knowledge as airline executive, excellent judgment skill, have preferably completed Accident Investigation Basic and Advance Courses, have the experience of conducting minimum two (02) accidents and/or serious incidents as an IIC AAIT;
5. Investigator (AIR) for Category B type of accident (Accidents but Not of Hull Loss in nature), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Airline Engineering or CAA Airworthiness background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective Investigator (AIR) should have vast airline or CAA Airworthiness experience, having held administrative knowledge as airline or CAA executive, excellent judgment skill, have preferably completed Accident Investigation Basic and Advance Courses, have the experience of conducting minimum two (02) accidents and/or serious incidents as an Member (AIR) of AAIT;
6. Investigator (Other Discipline) for Category B type of accident (Accidents but Not of Hull Loss in nature), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Airline or CAA (Compatible Discipline) background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective Investigator (Other Discipline) should have vast airline or CAA (Compatible Discipline) experience, having held administrative knowledge as airline or CAA executive, excellent judgment skill, have preferably completed Accident Investigation Basic Course, have the experience of conducting minimum one (01) accidents and/or serious incidents as an Investigator (Other Discipline) of AAIT;
7. The IIC for Category C type of accident (Serious Incident), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Operations background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective IIC should have vast airline flying experience, possibly not less than 5,000 hours of flying experience, having held administrative knowledge as airline executive, excellent judgment skill, have preferably completed Accident Investigation Basic Course, have the experience of conducting minimum two (02) accidents and/or serious incidents as a member of AAIT;





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8. Investigator (AIR) for Category C type of accident (Serious Incident), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Airline Engineering or CAA Airworthiness background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective Investigator (AIR) should have vast airline or CAA Airworthiness experience, having held administrative knowledge as airline or CAA executive, excellent judgment skill, have preferably completed Accident Investigation Basic and Advance Courses, have the experience of conducting minimum two (02) accidents and/or serious incidents as an Member (AIR) of AAIT;
9. Investigator (Other Discipline) for Category C type of accident (Serious Incident), mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Airline or CAA (Compatible Discipline) background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective Investigator (Other Discipline) should have vast airline or CAA (Compatible Discipline) experience, having held administrative knowledge as airline or CAA executive, excellent judgment skill, have preferably completed Accident Investigation Basic Course, have the experience of conducting minimum one (01) accidents and/or serious incidents as an Investigator (Other Discipline) of AAIT;
10. Investigator (AD-HOC) for Category D type of accident/incident, mentioned in the Organizational Structure of AAIG-BD in Section 20, will have Airline or CAA (Compatible Discipline) background and considerably knowledgeable in the field of management of accident investigation. For the purpose of selection, the prospective Investigator (Other Discipline) should have vast airline or CAA (Compatible Discipline) experience, having held administrative knowledge as airline or CAA executive, excellent judgment skill, have preferably completed Accident Investigation Basic Course, have the experience of conducting minimum one (01) accidents and/or serious incidents as an Investigator (Compatible Discipline) of AAIT;

c) Job Descriptions of the Head of AAIG-BD:

1. In Case of an Aircraft, operated and also manufactured in Bangladesh, meeting with an Accident/Serious Incident within the Territory of Bangladesh:
  - a. Simultaneously with the actions being taken in accordance with the National/Airport Emergency Response Plans (ERP) as well as the National Search and Rescue Plans (SRP), the Head of AAIG-BD will dispatch, in the shortest possible time, the required number of its own group member team, who themselves are qualified investigators, comprising members from Operations, Airworthiness and Human Performance (Medical, if required) to procure the first-hand information and, if able, to supervise the personnel conducting the ERPs and SRPs;



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- b. Within the shortest possible time from the time of occurrence, the Head of AAIG-BD designates the AAIT, through issuance of a 'Memorandum' (Template of Memorandum is in Section 4.d) specifying the details of assignments to be performed by the AAIT during the period of investigation, comprising of the most compatible investigators specific to the type of investigation to be undertaken and engage the Team for investigation with minimum loss of time;
    - c. Liaise with all concerned to facilitate for effective implementation of the investigation ensuring that the AAIT performs the investigation independently devoid of any conflict of interest.
  2. In Case of Bangladeshi Registered Aircraft Meeting with an Accident/Serious Incident outside the Territory of Bangladesh:
    - a. In the event an investigation has been started by the State of occurrence which is satisfactory up to the required standard, the Head of AAIG-BD will designate members as accredited representatives, at the shortest possible time, to assist the investigators of the other State.
  3. In Case of Foreign Registered Aircraft Meets with an Accident/Serious Incident within the Territory of Bangladesh:
    - a. Simultaneously with the actions being taken in accordance with the National/Airport Emergency Response Plans (ERP) as well as the National Search and Rescue Plans (SRP), the Head of AAIG-BD ensures to dispatch, in the shortest possible time, the required number of its own investigation team comprising the Operations, Airworthiness and Human Performance (Medical, if required) to procure the first-hand information and, if able, to supervise the personnel conducting the ERPs and SRPs;
    - b. The Head of AAIG-BD sends 'Notification' as early as practicable, on the accident/serious incident to the State of Registration of the aircraft specifying the details of information as per the specific Form which is in compliance with the requirements of ICAO Annex 13 as well as ANO on Aircraft Accident Investigation;
    - c. The Head of AAIG-BD designates the AAIT, at the shortest possible time, through issuance of a 'Memorandum' specifying the details of assignments to be performed by the AAIT during the period of investigation, comprising of the most compatible investigators specific to the type of investigation to be undertaken and engage the Team for investigation with minimum loss of time and continues with the investigation unless the investigation authority of the State of Registration takes over the control of investigation, having desired so.



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d) Job descriptions of the Deputy Head of AAIG-BD:

The Deputy Head of AAIG-BD will perform all functions as the Head of AAIG-BD as stipulated in 21 c) whenever the Head of AAIG-BD is absent or out of base on other assignment. However, he will maintain telephonic and electronic communications with the Head of AAIG-BD whenever required.

e) Job descriptions of the Member Secretary (1 & 2), AAIG-BD:

1. Assist the Head of AAIG-BD in amending the ANO on accident and incident investigation at par with ICAO Annex 13;
2. Assist the Head of AAIG-BD in establishing any difference of regulation coherent with Annex 13;
3. Assist the Head of AAIG-BD in filing the difference to ICAO through OLF of CMA;
4. Ensure display of the latest and amended regulations, circulars, advices etc. to CAAB website [www.caab.gov.bd](http://www.caab.gov.bd) in the dedicated main menu ACCIDENT INVESTIGATION;
5. Proceed to accident/incident on-site, home and abroad, as applicable, as requested by the Head of AAIG-BD for gathering information;
6. Assist the AAIG-BD panel in gathering the first hand information on an accident and/or serious incident;
7. Assist the Head of AAIG-BD for constructing 'Notifications' and disseminate them on time, to all concerned, as applicable;
8. Open, initiate and manage files on investigation and keep records;
9. Transfer and receive files to and fro between AAIG-BD and AAIT;
10. Receive the preliminary and final reports submitted by the AAIT for onward submission to the Head of AAIG-BD and all other agencies, as applicable;
11. Disseminate the Safety Recommendations provided by the AAIT to all those applicable while making requests for providing comments and thereafter the feedback on the implementation actions from the concerned agencies until final closing of all the implementation items;
12. Close the investigation files and keep records; and,
13. Perform any function(s) as desired by the Head of AAIG-BD.

f) Job descriptions of other members of the AAIG-BD Panel:

1. Assist the AAIG-BD Panel as a team member in executing all the functionalities as mentioned in Section 21 e); and,
2. When designated as IIC or a member of AAIT, perform the duties as innumerate in 21 g).



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### g) Job descriptions of the IIC and the AAIT:

1. To Use the Guidance provided in AAIT Guidance (Part-G) for conduct of investigation;
2. To inquire into the circumstances under which the accident/serious incident has taken place;
3. To assess the damage to the aircraft, Injury to Human Souls, Property and Equipment;
4. To ascertain cause(s) of the incident;
5. To correspond with the concerned Operator(s), Flight Crews, Manufacturers, Public or any other Agency in relation to the Investigation;
6. To keep all Evidences, Correspondences and Reports in a systematic manner;
7. To maintain Confidentiality of the Proceedings of any Reports generated;
8. To recommend Safety Measure(s) to avoid such recurrence in future;
9. To note that the sole objective of the investigation of an accident or serious incident shall be the prevention of accidents, serious incidents and incidents and that it is not the purpose of the investigation is to apportion blame or liability;
10. If required, for efficient conduct of the investigation, to Co-opt one or more additional member(s) or any other member as Technical Advisor(s) from abroad;
11. To exercise the power as per ANO on Accident investigation and shall formulate the Preliminary/Initial and the Draft Final Report as per the AAIG-BD approved Manual of Aircraft Accident and Serious Incident Investigation (AAIT);
12. The Preliminary/Initial and the Draft Final Report shall be submitted within 30 (Thirty) and 365 (Three Hundred Sixty Five) days respectively to the Head of AAIG-BD, both in Hard and Soft copies from the date of issue of this Memorandum for onward submission to concerned Authority, Agency, Person etc. as applicable;
13. If after the investigation has been closed, new and significant evidence become available, to re-open the investigation as desired by the AAIG-BD;
14. To ensure that the investigation is conducted independently and impartially, devoid of any influence and/or interest what so ever;
15. To perform any additional task required during the process of investigation, such as proceed to station of facility for the readout and analysis of the CVR and/or FDR, as the case may be.
16. To provide Interim, if any and final Safety Recommendations for the occurrence to avoid recurrence in future.

### h) Job descriptions of the Ad-hoc Investigators:

When designated as IIC or a member of AAIT, to perform the duties as innumerate in 21 g).



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i) Job descriptions of the OJT Investigators:

When designated as an OJT member of AAIT, to observe the duties as innumerate in 21 g).

- j) In addition, the Head of AAIG-BD will make the provision to call on the best technical expertise from any source to be a part of the Accident Investigation Team (AAIT) to conduct the investigation;
- k) The Head of AAIG-BD has made the provision to have the AAIG-BD's own appropriately qualified personnel identified and charged with aircraft accident and serious incident investigation duties. A list has been prepared as per Section 20 commensurate with the qualifications of designated investigators (full-time and part time/seconded investigators), having sufficient practical experience, and not only theoretical knowledge acquired in courses or seminars. The concerned investigators will be imparted with appropriate training as applicable.
- l) The Head of AAIG-BD shall establish methodology to identify staff needs wherein the actual number of aircraft accident investigators employed or available and number of investigations conducted under the Bangladesh's responsibility, process to establish and fill the required posts initially and on an on-going basis, ability of Bangladesh to accomplish all required activities including the 'development of regulations, procedures and other guidance materials', 'Training', and 'reporting and analyses of safety deficiencies' be reviewed. In order to establish the methodology of the staffing needs, the Head of AAIG-BD identifies the following:
1. To start with, the panel of AAIG-BD will have a minimum of seven persons of which at least one each from Operations, Airworthiness, Legal, ATS/AGA each and from any other, as appropriate, as indicate below:

|  |
|--|
| 01 Investigator as Head of AAIG-BD (OPS)                               |
| 01 Investigator as Deputy Head of AAIG-BD (Other Discipline)           |
| 02 Investigator as Member Secretary (1 & 2) of AIG-BD (Any Discipline) |
| 01 Investigator as Member of AIG-BD (AIR)                              |
| 01 Investigator as Member of AIG-BD (Other Discipline)                 |
| 01 investigator as Member of AIG-BD (Legal)                            |

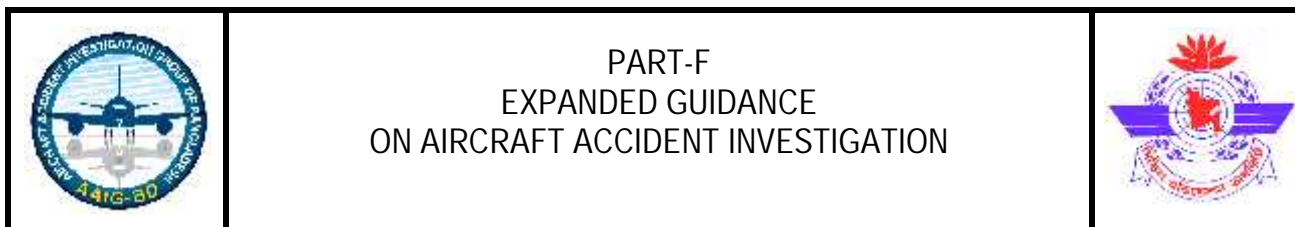




## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



2. The Head of AAIG-BD keeps a close watch to ensure that the panel remains intact at all times and should there be any separation or retirement of any member of the panel, the deficiency will be met at the earliest possible time by enrollment of new staff as on an on-going basis. In addition, the Head of AAIG-BD ensures that for staffing needs it maintains together with its own panel the list of investigators as outlined in section 19. The list of investigators is refurbished on yearly basis in order to ensure that adequate number of investigators will be in strength at all times. To this effect, the member Secretary arranges for an annual meeting to take place tentatively around November-December of each calendar year. The member Secretary AAIG-BD also ensures that the name of the Investigators together with the AAIG-BD panel will be published in the dedicated 'Main Manu' of the website [www.caab.gov.bd](http://www.caab.gov.bd) by 31 December of each calendar year.
  3. The AAIG-BD panel, in addition to its functionaries as controlling and conducting in-depth investigation on accidents and serious incidents whenever designated by the Head of AAIG-BD, also accomplishes all required activities including the 'development of regulations, procedures and other guidance materials', looking after the 'Training', 'reporting and analyses of safety deficiencies'.
- m) The AAIG-BD feels that Bangladesh has adequate number of Aircraft Accident Investigators within the country to cope up with the accomplishment of aircraft accident investigation. However, in case the AAIG-BD feels, at any stage, that it may encounter dearth of appropriately qualified investigators, then it will make arrangements i.e. Memoranda of Understanding (MoUs) with other States or with regional organizations to obtain the necessary personnel in an expeditious manner in the event of an accident. To this effect, the AAIG-BD plans to sign MoUs with a few of the Investigation Authorities/Agencies, as appended in Section 7, Part-E of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD).
- n) Additionally, to give effect to Section 21 I). 2., the Head of AAIG-BD will ensure the accomplishment of the following tasks:
1. Form a panel of investigators appropriate for performing investigation;
  2. Arrange to train the proposed investigators as appropriate;
  3. Detail appropriately qualified Investigators forming the Aircraft Accident Investigation Team (AAIT) to conduct investigation following an accident/serious incident etc.;
  4. Develop and provide the necessary guidance material for use by the Air craft Accident Investigation Team (AAIT)
  5. Make the provision to ensure that the AAIG-BD has sufficient personnel to meet the obligation for Bangladesh and other States related to aircraft accident investigations.



## 22. CREDENTIALS FOR THE ACCIDENT INVESTIGATORS

- a) The AAIG-BD ensures that all members of the AAIG-BD as well as the Investigators are issued with appropriately made Credentials. These investigators shall encompass the full time and part time investigators. The credentials shall contain the following:
  1. Reference to empowering the legislation/regulation wherein reference may be made as of the ANO;
  2. Method to control currency of credentials wherein the date of Issue and the date of expiry shall be mentioned and each time the credential is renewed, statement on the larger may be kept for appropriate control numbering and recording;
  3. Salient Instruction on the access control and assignment as applicable; and,
  4. A printed Photo of investigator.
- b) The Template of the Credential for the Aircraft Accident Incident Investigators and the Officials of the AAIG-BD Panel will be as flows:



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TEMPLATE OF THE CREDENTIAL OF AIRCRAFT ACCIDENT INVESTIGATOR

FRONT SIDE

BACK SIDE

|  |   |
|--|---|
| <p>Ref: CAAB/CS/32/01/AAIG-BD    Number: .....</p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <p style="text-align: center;"><b>GOVERNMENT OF THE<br/>PEOPLES REPUBLIC OF BANGLADESH<br/>CIVIL AVIATION AUTHORITY, BANGLADESH</b></p> <p>Capt/Mr/Ms<br/>.....<br/>.....</p> <p>is an authorized Aircraft Accident Investigator of Bangladesh. He/She is authorized to exercise the powers delegated to him/her under Civil Aviation Ordinance 160, Rule 234-255 of CAR 1984 and ANO on Aircraft Accident Investigation of AAIG-BD as amended from time to time.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="border: 1px solid black; width: 100px; height: 60px; display: flex; align-items: center; justify-content: center;">             PHOTO           </div> <div style="text-align: right;">             Date of issue .....<br/><br/>             Valid until .....           </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; text-align: center;">             _____<br/>Holder           </div> <div style="width: 45%; text-align: center;">             _____<br/>Head of AAIG-BD           </div> </div> | <p><u>The holder of this Credential is authorized to :</u></p> <ol style="list-style-type: none"> <li>1. Conduct Aircraft Accident and Serious Incident Investigation in conformity with the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) and the AAIT Manual published thereof.</li> <li>2. Enter all Crash Site and wreckage areas including any place to which access is required for the purpose of exercising his powers as mentioned overleaf.</li> <li>3. Enter and inspect offices, stores, maintenance facilities and documents of any organization and vendor for the purpose of Investigation.</li> <li>4. Exercise the powers as outlined in the Memorandum for the purpose of Investigation of Serious Incident and/or Aircraft accident.</li> <li>5. Investigate and/or inspect any civil registered aircraft, Flight Crew and other associated Personnel and Equipment for the purpose of investigation.</li> </ol> |
|--|---|





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TEMPLATE OF THE CREDENTIAL OF THE AAIG-BD PANEL

FRONT SIDE

BACK SIDE

|   |   |
|---|---|
| <p>Ref: CAAB/CS/32/AAIG-BD    Number: .....</p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <p style="text-align: center;"><b>GOVERNMENT OF THE<br/>PEOPLES REPUBLIC OF BANGLADESH<br/>CIVIL AVIATION AUTHORITY, BANGLADESH</b></p> <p>Capt/Mr/Ms<br/>.....<br/>.....<br/>is [Title] ..... of the<br/>Aircraft Accident Investigation Group of Bangladesh<br/>(AAIG-BD).</p> <p>He/She is authorized to exercise the powers delegated to<br/>him/her under Civil Aviation Ordinance 160, Rule 234-255<br/>of CAR 1984 and ANO on Aircraft Accident Investigation of<br/>CAAB as amended from time to time.</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="border: 1px solid black; width: 100px; height: 80px; display: flex; align-items: center; justify-content: center;">             PHOTO           </div> <div style="text-align: right;">             Date of issue .....<br/><br/>             Valid until .....           </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 30%; text-align: center;">             _____<br/>Holder           </div> <div style="width: 30%; text-align: center;">             _____<br/>Head of AAIG-BD           </div> <div style="width: 30%; text-align: center;">             _____<br/>Chairman           </div> </div> | <p><u>The holder of this Credential is authorized to :</u></p> <ol style="list-style-type: none"> <li>1. Conduct Aircraft Accident and Serious Incident Investigation in conformity with the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) and the AAIT Manual published thereof.</li> <li>2. Enter all Crash Site and wreckage areas including any place to which access is required for the purpose of exercising his powers as mentioned overleaf.</li> <li>3. Enter and inspect offices, stores, maintenance facilities and documents of any organization and vendor for the purpose of Investigation.</li> <li>4. Exercise the powers as outlined in the Memorandum for the purpose of Investigation of Serious Incident and/or Aircraft accident.</li> <li>5. Investigate and/or inspect any civil registered aircraft, Flight Crew and other associated Personnel and Equipment for the purpose of investigation.</li> </ol> |
|---|---|



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### 23. TRAINING FOR ACCIDENT INVESTIGATORS

- a) All members of the AAIG-BD as well as the Investigators who will be involved in conducting Aircraft Accident Investigations shall undergo appropriate training programmes for efficient conduct of investigation. The training programme shall include Initial, OJT, Recurrent and specialized training, including timetables, as applicable. The AAIG-BD has develop appropriate Guidance on the construction, information material and Training Programme and associated Syllabus for the Initial, OJT, Recurrent and specialized training which shall include Basic and Advance Investigation Training Courses. Reference may be made to Part-E, 'Training Guidance' of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD).
- b) Training Programme so developed shall have the detailed information on the prioritization and effective implementation on the type of training i.e., Initial, OJT, Recurrent and specialized training to be provided to the investigators during an established period.
- c) With a view to achieving the implementation of the type and frequency of training being provided (initial, recurrent and specialized), the training provided should be sufficient for the investigators to acquire and maintain the required level of knowledge, skills, competence and qualifications in accordance with their assigned duties and responsibilities.
- d) Training records for its technical personnel, such as the AAIG-BD Team members as well as the Investigators, including records on the OJT received by all such personnel shall be maintained. All training records are to be systematically retained.
- e) The investigators with initial and recurrent training related to safety at the accident site are to be provided. In this regard the Training Programme, so developed by the AAIG-BD, contains what all Safety Equipment and Safety Measures shall be used or taken by the investigators, or what physical or material protection shall be provided to the investigators with a view to ensuring that no personal injury or any contaminated infections etc. may affect the investigators under any circumstances. Such Training is being given to all personnel designated to carry out investigation tasks. The AAIG-BD will ensure that all trainings provided to the investigators are kept in record systematically.
- f) The investigators will have their investigation field kits and essential personal items packed and ready to proceed without delay to the accident site. The items (field kits and essential personal items) to be momentarily available and easily packed shall be enlisted. Suitable transportation facility shall be made readily available including sufficient financial resources to facilitate fast movement by the AAIG-BD Team or the assigned Investigators.



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



Note: Detailed instructions and guidance are available in the relevant Parts (A-F) of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) as well as in the AAIT manual (Handbook) developed by the AAIG-BD.

### 24. AVAILABILITY OF AIRCRAFT ACCIDENT INVESTIGATORS

- a) Arrangements will be made to use experts seconded from CAA Bangladesh or other Organizations in Bangladesh, such as Air Operators, Bangladesh Army, Air Force, Navy personnel or any other Bangladesh Government Agencies, as investigators. Necessary coordination will be made with Chairman CAAB and/or the CEOs of the other Organization(s) with a view to ensuring that the investigators are relieved from their regular duties in the CAAB or other Organization during the process of investigation. Such experts, so utilized for the investigation purposes, shall remain under the working disposal of the AAIT until their functions on the investigation are over. The AAIG-BD, while making arrangements for such secondment of experts for the investigation will establish arrangements for adequate funds for the day to day functioning by the engaged investigators.
- b) Whenever the uses of the experts seconded by CAAB or other organizations in Bangladesh as investigators are made, any possible conflicts of interest shall be avoided. In this regard, the AAIG-BD will coordinate viewing the responsibilities of various Government agencies to be involved as investigator(s) to ensure systematic conduct of an investigation and shall ensure selection of investigators to avoid possible conflicts of interest in a manner that any person from the CAAB or other organization shall not have any interest in conjunction with the accident.

### 25. DOCUMENTATION, EQUIPMENT AND TRANSPORTATION

- a) The AAIG-BD shall have adequate manpower and a separate accommodation dedicated for the AAIG-BD as well the AAIT including adequate facility for storing equipment to be used by investigators during accident investigations. The storing facility shall have investigator field kits to be provided to aircraft accident and incident investigators, including the essential personal items and required equipment for their safety protection. Should there be any extra equipment desired for by AAIT, AAIG-BD shall ensure procurement of the new items. In addition, the AAIG-BD shall have sufficiently spaced office accommodation, office equipment and utensils, up-to-date documentation system, procedures and guidance materials for the investigators to assist investigators to effectively accomplish their functions and responsibilities.
- b) The AAIG-BD has developed and issued an investigation procedures and guidance manual containing the policies and procedures to be followed for conducting investigation related tasks. The 'Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD)', comprised of several Parts (A-F) and the AAIT Manual itself are controlled documents and/or a set of controlled documents which have the options and process to manage amendments so that the investigators are able to actually use the latest amendments of the



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



Manual/Documents for the purpose of investigation. Amendment procedures laid down in different Parts of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) may be referred for these purposes.

- c) The investigators will have their investigation equipment to enable the conduct of investigation. These equipment include tools, survey equipment, marking equipment, etc. To ensure this the AIG-BG maintains a list of the collective and individual equipment available and keeps this list up-to-date. The AAIG-BD also ensures that the relevant personnel is aware of and has ready access to these equipment.
- d) The investigators are provided with all necessary means of communication and transportation to enable the conduct of investigations. The relevant personnel are aware of and have the required information regarding the contact details for the availability of such transportation facility.
- e) The investigators are provided with all necessary protective equipment to address biological hazards and other hazards at accident sites. The AAIG-BD also ensures that a list of such protection item is available and the relevant personnel is aware of and has the required information regarding such protection items.

Note: Detailed instructions and guidance are available in the relevant Parts (A-F) of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) as well as in the AAIT manual (Handbook) developed by the AAIG-BD.

### 26. ACCIDENT INVESTIGATION AND SAFETY RECOMMENDATIONS

- a) The aircraft accident and incident investigations falling under its responsibility to conduct, including major accident investigations, are carried out in an efficient manner. To this effect, different types of occurrences (e.g. serious incidents or accidents, fatal or non-fatal accidents, public transport or general aviation) and serious incidents, are to be addressed. The AAIG-BD has established documented policy, on how it will deal with the various types of occurrences such as serious incidents or accidents, fatal or non-fatal accidents, public transport or general aviation. Additionally, depending upon the type of accident the AAIG-BD may like to delegate the responsibility to another State upon receipt of advice from Chairman CAAB as well as the Ministry of Civil Aviation and Tourism. In this case, in coordination with Chairman CAAB and the Ministry of Civil Aviation and Tourism, the AAIG-BD will specify the type and scope of investigation to be launched.
- b) Part-D (Policy and Guidance) of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) outlines on the process for investigating the various types of accidents, the guidance to help determine the extent of an accident investigation depending on the circumstances of the accident and the safety lessons it expects to draw from the



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



investigation. For this purposes, all investigations are reviewed in order to ascertain the scope and depth of the investigation, and whether or not the investigators will be deployed on site.

- c) Following an accident, the Head of AAIG-BD will decide, based on the information available, the need of deploying on site the IIC and the extent of the investigation as well as the most appropriate number of investigators to be appointed as the members of investigators that will comprise the formation of the AAIT. Additionally, the Head of the AAIG-BD will assess to determine which types of incidents, such as the air traffic service related incidents, the Pilot error related incident, the aircraft mechanical failure related, adverse weather being involved or any combined factor etc., in conformance with Annex 13. The process entails whether the occurrence will fall under the category of a serious incident or accident, in addition to the list of examples included under the definition of 'Serious Incident' in ICAO Annex 13, duly adopted by AAIG-BD outlined in this manual.

Note: Detailed instructions and guidance are available in the relevant Parts (A-F) of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) as well as in the AAIT manual (Handbook) developed by the AAIG-BD.

- d) Following an accident, the Head of AAIG-BD will decide, based on the information available, the need of deploying on site the IIC and the extent of the investigation as well as the most appropriate number of investigators to be appointed as the members of AAIT.



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27. UNLAWFUL INTERFERENCE

The Head of AAIG-BD will inform the Aviation Security Authorities (AVSEC) immediately if an act of unlawful interference was involved or is suspected. While performing this, the AAIG-BD ensures that copies of relevant correspondence evidences on the perceived act of unlawful interference are systematically recorded and evidences kept. A typical 'Template' of such correspondences is shown below:

|  |                  |
|--|------------------|
| (Reference .....)  | (Place and Date) |
| To<br>The 'In Charge' Aviation Security Authority,<br>(Aerodrome Name)<br>(Aerodrome Address with phone number and E-mail)   |                  |
| Dear Sir/Madam,  |                  |
| This is to kindly inform you that an act of unlawful interference has been identified by the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) on (date, time and place) wherein (description of the incident in details). |                  |
| The above information is conveyed to you for your kind necessary action.   |                  |
| The AAIG-BD will appreciate an update on the action taken at your end in this regard.  |                  |
| Many thanks.   |                  |
| (Signature)<br>(Name, position, address including telephone and e-mail of the official of AAIG-BD)<br>On behalf of the Head of AAIG-BD   |                  |
| CC: (as applicable)  |                  |





## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### 28. APPOINTMENT OF INVESTIGATION TEAM (AAIT)

- a) Soon after an aircraft occurrence or just prior to the same, if indications are available for any serious incident or accident to take place, the AAIG-BD will take immediate initiative to conduct an investigation through the designation of an investigator-in-charge (IIC) and the appointment of an investigation team, to be known as Aircraft Accident Investigation Team (AAIT), as necessary. The AAIG-BD issues a 'Memorandum' to this effect designating the name of the IIC and the AAIT with the 'Terms and Reference' of the AAIT, as applicable, to conduct investigation, be it a serious incident or accident.
- b) While forming the AAIT, the AAIG-BD ensures that at least one experienced investigator is assigned to each investigation to provide the required level of experience during an investigation. To this effect, the AAIG-BD has published a list of experienced investigators and provide them with appropriate credentials for the appointment of IIC for the investigation.
- c) The AAIG-BD will ensure the protection of investigators against biological hazards and other hazards at the accident site. In this regard, in order to safeguard the investigators, the AAIG-BD shall cater for the adversity of terrain, environmental conditions, wreckage, and hazardous materials such as chemical, explosive, biological and radioactive items those have considerable potential to cause serious physical injury. Hazardous materials (Hazmats) jeopardize the health and safety of all personnel at the occurrence site and are found in various forms such as toxic, flammable corrosive, radioactive, biological and other substances.

Note: Detailed instructions and guidance are available in Part-D of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) developed by the AAIG-BD.

### 29. NOTIFICATION ON SERIOUS INCIDENT AND ACCIDENT

- a) The AAIG-BD forwards accident or incident initial notifications to other States and Agencies as applicable and as per this Guidance Material issued. The AAIG-BD ensures that correct and up-to-date contact information of aircraft accident investigation authorities of other States is made available to, and used by the Head of AAIG-BD for forwarding accident or incident initial notifications. The contact information so stored by the AAIG-BD is having accuracy and made available to the members of AAIG-BD. Timely amendments are made of the contact information based on the contact list published on the ICAO public website as well as CAAB public website.



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- b) The AAIG-BD provides ICAO and other international Agencies, as applicable, with accurate, comprehensive and up-to-date contact information of its own establishment. The contact details of the Head, the Member Secretary and other members of the AAIG-BD Team are kept up-to-date at all times for this purpose and the AAIG-BD ensures by confirming with the ICAO public website the availability of the most current and up-to-date contact list of AAIG-BD Team.
- c) The AAIG-BD has a process to deal with notifications of accidents and incidents (forwarded within the State or forwarded by other States) during office hours as well as out of office hours. To this effect, the AAIG-BD has established the process to report occurrences on a 24-hour basis and in order to ensure this, at least one member from the AAIG-BD will be appointed as Duty Officer who will remain alert and operational on 24 hour basis. The AAIG-BD has devised methods through allocation process to ensure that all members of the AAIG-BD shall have dedicated Cell Phones allocated. Additionally, there should be one dedicated Cell Phone and with all-time fixed Number is allocated to the Duty Officer. The duty officer's Cell Phone contact number is made available to all concerned persons and organizations. The following 'Template' will be used to reflect the duty roster for 24 hours/365 days:

DUTY OFFICER'S ROSTER FOR SERIOUS INCIDENT/ACCIDENT INFORMATION

[MONTH] ...../[YEAR .....]

| DATE OF MONTH<br>(0001-2400 HRS LT) | NAME<br>STBY NAME | POSITION                 | E-MAIL               | CELL<br>CONTACT        |
|-------------------------------------|-------------------|--------------------------|----------------------|------------------------|
| FROM 01 TO 05                       | [NAME]<br>[NAME]  | [POSITION]<br>[POSITION] | [E-MAIL]<br>[E-MAIL] | [CONTACT]<br>[CONTACT] |
| FROM 06 TO 10                       | [NAME]<br>[NAME]  | [POSITION]<br>[POSITION] | [E-MAIL]<br>[E-MAIL] | [CONTACT]<br>[CONTACT] |
| FROM 11 TO 15                       | [NAME]<br>[NAME]  | [POSITION]<br>[POSITION] | [E-MAIL]<br>[E-MAIL] | [CONTACT]<br>[CONTACT] |
| FROM 16 TO 20                       | [NAME]<br>[NAME]  | [POSITION]<br>[POSITION] | [E-MAIL]<br>[E-MAIL] | [CONTACT]<br>[CONTACT] |
| FROM 21 TO 25                       | [NAME]<br>[NAME]  | [POSITION]<br>[POSITION] | [E-MAIL]<br>[E-MAIL] | [CONTACT]<br>[CONTACT] |
| FROM 26 TO END                      | [NAME]<br>[NAME]  | [POSITION]<br>[POSITION] | [E-MAIL]<br>[E-MAIL] | [CONTACT]<br>[CONTACT] |

Note: The Roster is to be developed by the Deputy Head of AAIG-BD on a yearly basis. Minor changes may be made due to prolonged absence of the scheduled official on a case to case basis.





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- d) In case Bangladesh is the State of Occurrence of a serious incident or accident, it will forward the information of an accident/serious incident notifications to other States involved and, when applicable, ICAO using the template outlined in Section 3 e) wherein the Notification document has been duly authenticated by the Head of AAIG-BD in the 'Approval' declaration of Part-F. Hence, the effective implementation of following points will be ensured:
1. Established Procedures, guidelines, checklists, through this Part;
  2. The Notifications documents are authenticated, through this Part;
  3. The documents on Notification will be filed Systematically and Records will be Maintained;
  4. The Notification shall be in compliance with the requirements of the relevant ICAO referenced documents.
- e) In situations where Bangladesh is not the State of Occurrence the accident/serious incident notifications will be forwarded by the AAIG-BD to the States involved and, when applicable, ICAO in the following situations:
1. Bangladesh as a State of Registry, in the case of an occurrence in a non-Contracting State or outside the territory of any State; and,
  2. Bangladesh as State of Registry or State of the Operator, when the State of Occurrence is not aware of a serious incident.
- f) Such records on Notification shall be kept by the AAIG-BD in a systematically and sequential manner.
- g) The initial notifications of aircraft accidents and serious incidents in all cases of serious incident or accident will be forwarded in a timely manner to the States and Organizations concerned as well as ICAO, when applicable. No unnecessarily delay should be made on the forwarding of initial notifications while waiting to compile additional information and that the copies of recent notifications and date of dispatch will be sequentially recorded and such records shall be maintained.
- h) As depicted in Section 3 (e, the format and content of the notification made clear and concise, prepared in English, taking into account the language of the recipient(s). The Format on Notification has been constructed to accommodate all the available and relevant information required as per the guidance provided in ICAO Annex 13.



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### 30. APPOINTMENT OF ACCREDITED REPRESENTATIVE

- a) The provision to appoint an accredited representative, if required has been outlined in Section 3 (d) of this Part. The Memorandum issued by the AAIG-BD to the AAIT provides instruction for the IIC to appoint an accredited representative if it intends to do so. The AAIG-BD has also made the provision within an established procedure to implement that it informs any other State conducting the investigation if it intends to appoint an accredited representative and, if so, will provide the associated details to the State. While performing so, copies of relevant correspondence on the appointment of accredited representatives are systematically maintained and recorded. Please refer to the 'Template of the Memorandum' in this Part.
- b) The accredited representatives, so engaged, shall remain under full control of the AAIT. However, the accredited representatives must be entitled to the following:
  1. Visit the scene of the accident;
  2. Examine the wreckage;
  3. Obtain witness information and suggest areas of questioning;
  4. Have full access to all relevant evidence as soon as possible;
  5. Receive copies of all pertinent documents;
  6. Participate in read-outs of recorded media;
  7. Participate in off scene investigative activities such as component examinations, technical briefings, tests and simulations;
  8. Participate in investigation progress meetings including deliberations related to analyses, findings, causes and safety recommendations; and,
  9. Make submissions of the various elements of the investigation.
- c) The AAIT, while conducting the investigation, should allow advisers and assisting accredited representatives to participate in an investigation to the extent necessary to make the representatives' participation effective.
- d) The IIC of the AAIT will ensure that the proposed advisers by the operator or by the organizations responsible for the type design and the final assembly of the aircraft will be included in the investigation, except circumstances where a clear conflict of interest is evident.
- e) Accredited representative(s), in particular when specifically requested to do so by the State conducting an investigation (for an accident to an aircraft of a maximum mass of over 2 250 kg), will be ensured by the Head of AAIG-BD to participate in the investigation and records of such appointments shall be systematically maintained and stored by the AAIG-BD.
- f) Proposed advisers, as applicable, by the operator or by the organizations responsible for the type design and the final assembly of the aircraft shall also be appointed, if desired and the records of such appointments are to be systematically maintained and stored.



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g) In case any or more citizens of Bangladesh suffer fatalities or serious injuries due to aircraft accident taking place in another State. The Head of AAIG-BD will appoint an appropriate expert to the state of occurrence who shall be entitled to the following :

1. visit the scene of the accident;
2. have access to the relevant factual information which is approved for public release by the State conducting the investigation, and information on the progress of the investigation; and
3. receive a copy of the Final Report.

The Head of AAIG-BG will also ensure that all the needs as to where the expert will come from, by whom he/she will be accompanied, with what mandate and guidance, etc. will be addressed. All records of such appointments will be systematically maintained and stored.

31. INFORMATION REGARDING AIRCRAFT, FLIGHT CREW AND PASSENGERS

- a) The AAIG-BD will provide any State conducting an investigation any relevant information regarding the aircraft and flight crew involved in the aircraft accident or serious incident as soon as possible. While performing so, the AAIG-BD will systematically maintain copies of relevant correspondence on the information provided and recorded.
- b) Wherever required, autopsy examinations will be carried out for Flight Crew, Passengers and/or any other persons involved with the accident. In the event of a fatal accident, the AAIG-BD will make arrangements for complete autopsy examination of fatally injured flight crew and subject to the particular circumstances, of fatally injured passengers and cabin attendants, by a pathologist, preferably experienced in accident investigation. The examinations shall be expeditious and complete.
- c) Expeditious medical examination will be conducted of the flight crew, cabin attendants, passengers and involved aviation personnel by a physician, preferably experienced in accident investigation. Such examinations should be expeditious and may also determine whether the level of physical and psychological fitness of flight crew and other personnel directly involved in the occurrence is sufficient for them to contribute to the investigation.
- d) Relevant and timely information on the progress of the investigation will be provided to the families and accident survivors. In case of legitimate request from the families/survivors, the Head of AAIG-BD will assign, preferably the legal advisor of the AAIG-BD to meet the requirement by means of telephone, e-mails or direct means.

Note: Detailed instructions and guidance are available in the relevant Parts of the Compendium on Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) as well as in the AAIT manual (Handbook) developed by the AAIG-BD.



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### 32. INFORMATION ON DANGEROUS GOODS

The AAIG-BD will provide any State conducting an investigation with the information containing the details of dangerous goods on board the aircraft with a minimum of delay and by the most suitable and quickest means available in the event that Bangladesh is the State of the Operator. The AAIG-BD will also ensure that all these information are kept in Record in a systematic way. To achieve the above, the AAIG-BD shall sign of MoU with all Bangladeshi International Air Operators so as to be able to communicate, within 24 hours, to the State conducting the investigation.

### 33. AIRCRAFT AND EVIDENCE OF WRECKAGE

- a) The IIC will ensure the preservation of all evidences of a transitory nature of the wreckage shall be kept and recorded in the investigation report taken through photography or other appropriate means. To this effect, the Compendium on Aircraft Accident Investigation as well as in the AAIT manual (Handbook) provide instructions to IIC that all such evidences shall be preserved for onward hand over to the AAIG-BD for long-term preservation and record keeping. AAIG-BD shall action MoU across all relevant agencies such as the national Airport Authorities, Air Force, Army, Navy, Police, Boarder guards and alike national agencies for enabling such preservation of evidences.
- b) The aircraft or wreckage as well as the accident site shall be protected against access by unauthorized persons, pilfering or deterioration. In order to achieve this, the AAIG-BD shall action MoU across all relevant agencies such as the national Airport Authorities, Air Force, Army, Navy, Police, Boarder guards and alike national agencies for enabling such preservation of evidences
- c) When needed, examination or testing of aircraft parts or components will be carried out in a thorough manner, if required through supervising examinations and tests with the assistance of manufacturers' facilities. Accredited Representatives will be invited to be present during the test, or, to take part in the discussion of the results of the test

### 34. COMMUNICATIONS, RECORDINGS AND DOCUMENTS

In the event of an accident or serious incident, the AAIT will keep in safe custody all air traffic services (ATS) communication recordings and documents associated with the flight. All such evidences shall be preserved for onward hand over to the AAIG-BD for long-term preservation and record keepings.



PART-F  
EXPANDED GUIDANCE  
ON AIRCRAFT ACCIDENT INVESTIGATION



35. COORDINATION OF ACTIVITIES

- a) Distinct separation will exist between the following two entities in conducting investigation. These two entities are:
  - 1. Investigations shall be conducted under Annex 13 at the accident site by the investigators;
  - 2. Investigations shall be conducted on judicial matters by the judicial authority.
- b) Effective implementation of Legislation/Regulations and/or formal arrangements, such as the Memorandums of Understanding (MoUs) will be established regarding coordination of activities related to securing and custody of evidences, identification of victims, flight recorder read-outs, examinations, tests, etc. Evidence of such MoU for enhanced coordination must be emphasized.
- c) The investigation will entitle the participation of experts of States which have special interest in an accident by virtue of fatalities or serious injuries to its citizens in accordance with Annex 13. In this regard the AAIG-BD shall ensure that States which have special interest in an accident by virtue of fatalities or serious injuries to its citizens will be entitled, under the supervision of the IIC, to:
  - 1. Visit the scene of the accident;
  - 2. Have access to the relevant factual information which is approved for public release;
  - 3. Participate in the identification of the victims;
  - 4. Assist in questioning surviving passengers who are citizens of the State; and,
  - 5. Receive a copy of the final report of the investigation.
- d) Whenever Bangladesh participates in an aircraft accident or serious incident investigation conducted by another State, the Head of the AAIG-BD will timely provide the State conducting the investigation with all the information and elements required throughout the investigation process. The information and elements required in the procedure shall contain at least the following:
  - 1. In all cases, all relevant information requested by that State;
  - 2. In all cases, information on an aircraft which prior to the occurrence of an accident or incident has used or normally would use the State's facilities or services;
  - 3. As State of Registry or State of the Operator, flight recorder records or the associated flight recorders when an aircraft involved in an accident or serious incident lands in a State other than the State of Occurrence; and,
  - 4. As State of Registry or State of the Operator, information on organizations whose activities may have directly or indirectly influenced the operation of the aircraft.



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



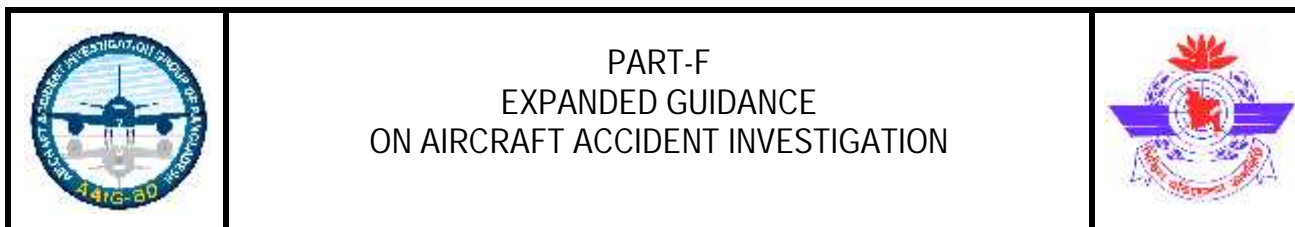
### 36. FLIGHT RECORDERS AND COCKPIT VOICE RECORDER

- a) Timely recovery and read-out of the flight recorders following an aircraft serious incident and accident shall be ensured by the AAIG-BD/AAIT. As an initial step, the Head of AAIG-BD shall ensure that immediately following a serious incident or accident, the aircraft involved shall be isolated or cordoned ensuring that other than only the authorized representative from the AAIG-BD or the assigned AAIT, none will have access to the flight recorder of the aircraft to extract. Care must be taken that, in the case of damaged FDR, the same is extracted from the aircraft or the wreckage, under the directives of the Head of AAIG-BD or the IIC of the assigned AAIT, which shall be done by only technically qualified person to ensure prevention of further damage of the FDR. The FDR recovery procedure for different cases shall be as follows:
  1. The recovery and handling of recorders, including damaged recorders and recorders recovered from water;
  2. The recovery and/or read-out are not impeded or delayed for administrative reasons, e.g. senior management or IIC may feel that it is necessary for the IIC to be present at all investigative activities and therefore delay recorder read-out until on-site documentation is complete;
  3. Any Judicial reasons i.e. apprehensions about chain of custody or the need to delay readout until judicial authorities determine their role and plan;
  4. Any financial reasons e.g. inability of staff to initiate readout without high level travel or funding approval.
- b) The underwater recovery should be clearly planned, initiated, funding arrangements made and overseeing underwater recovery and how these aspects will be conducted should be ensured.
- c) The AAIG-BD shall comply with Attachment D to Annex 13 regarding the choice of the read out facility and the participation of the State of Design/Manufacture and the State of the Operator in the flight recorder read out and analysis activities. In addition to the choice of the read out facility, the mode of participation of the State of Design/Manufacture and the State of the Operator in the flight recorder read out and analysis activities shall have to be considered.

### 37. INVESTIGATION AND VOLUNTARY REPORTING

- a) On completion of investigation, all final reports from aircraft accidents and serious incidents investigations will be made publicly available. To implement the system the final report, so made, shall be hoisted in the public website of the AAIG-BD, [www.caab.gov.bd](http://www.caab.gov.bd) under ACCIDENT INVESTIGATION MENU and distributed to all concerned organizations and agencies, as applicable.





- b) The final reports will be made in different formats depending on the types of occurrences and the extent of the investigation. However, the final report shall comply with the provisions contained in the Appendix to Annex 13. The following 'Template' will be used to display the contents of the final report.

### 38. TEMPLATE OF THE FINAL REPORT

The overall format of the Final Report (including Draft Final Report) is as follows:

#### a) TITLE

The Final Report begins with a title comprising:

1. Name of the operator
2. Manufacturer and model of the aircraft
3. Nationality and registration marks of the aircraft
4. Place and date of the accident

Note: The following statement on the objective of the investigation as spelt out in Annex 13 shall also be incorporated:

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

#### b) SYNOPSIS

Following the title is a synopsis describing briefly all relevant information regarding:

1. Notification of accident to national and foreign authorities
2. Identification of the accident investigation authority and accredited representation
3. Organization of the investigation
4. Authority releasing the report and date of publication
5. Brief summary of the circumstances leading to the accident



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



### c) BODY

The body of the Final Report comprises the following main headings:

- 1 Factual information
- 2 Analysis
- 3 Conclusions
- 4 Safety recommendations
- 5 Safety action

### d) APPENDICES

Materials and any other pertinent information considered necessary for the understanding of the report will be included as appropriate.

- e) The final report shall be completed as soon as possible and that, if the report is not made available within 12 months, an interim statement will be made publicly available on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues raised. The AAIG-BD advises through the Memorandum issued to the AAIT to complete the final report within 12 months and continues monitoring the progress on the investigation with a view to ensuring that the AAIT meets the target date or in case of valid cause, the AAIT makes available the interim report to the AAIG-BD when needed. A flexible format of the report will be considered to be acceptable by the Head of the AAIG-BG depending on the information available and the extent of the investigation. The AAIG-BD will publish the report so considered in [www.caab.gov.bd](http://www.caab.gov.bd) in the ACCIDENT INVESTIGATION menu.
- f) The consultation on the draft final report with all States which participated in the investigation, inviting their substantiated comments on the report should be made within sixty days from the date of the transmittal letter. The draft final report is sent by the IIC to all accredited representatives and that the response time allowed within 60 days.
- g) The correspondences mentioned in f) is intended to reach, in particular to the following:
  1. To the air operator or state involved;
  2. The State of Design;
  3. The State of Manufacture to the organizations responsible for the type design and the final assembly of the aircraft; and,
  4. The associated States will be informed of the transmission of the draft final report to the operator/the organization responsible for the type design and the final assembly of the aircraft.





## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



5. The States and Organizations being referred to are limited to the following:

- a) State that instituted the investigation
  - b) State of Registry
  - c) State of the Operator
  - d) State of Manufacturer
  - e) State of Design
  - f) States that participated in the investigation
  - g) States that provided relevant information, significant facilities or experts
  - h) States that suffered fatalities or serious injuries to its citizen
- h) The AAIG-BD shall systematically keep copies of all these correspondences in record.
- i) The Head of AAIG-BD will either amend the draft final report to include the substance of the comments received or, if desired by the State which provided the comments, append the comments to the final report.
- j) The Head of AAIG-BD shall send the final report to all States involved, including any State having suffered fatalities or serious injuries to its citizens and any State which provided relevant information, significant facilities or experts.
- k) The AAIG-BD shall also send the final report to ICAO for all investigated accidents and incidents when the aircraft is of a mass of over 5 700 kg.
- l) The Head of AAIG-BD must prevent from circulation, publication, or giving unauthorized access to a draft report or any part thereof, or any documents obtained during an investigation without the express consent of the State which conducted the investigation, unless such reports or documents have already been published or released by that latter State.
- m) The Head of AAIG-BD shall ensure that the Preliminary Reports, when the aircraft involved in an accident is of a maximum mass of over 2 250 kg, be sent to all involved States and ICAO. The AAIG-BD shall store and maintain copies of such disseminated reports and distribution list.
- n) The preliminary reports are submitted in English.
- o) The Head of AAIG-BD will send the final report, in electronic format, that includes the accident data involving aircraft of a maximum mass of over 2 250 kg to ICAO, as soon as practicable after the investigation. The AAIG-BD shall systemically document the copies of dispatched accident data reports and dispatch dates.



## PART-F EXPANDED GUIDANCE ON AIRCRAFT ACCIDENT INVESTIGATION



- p) The Head of AAIG-BD will send the final report, in electronic format, that includes the incident data to ICAO for investigations into incidents to aircraft of a maximum mass of over 5 700 kg. The AAIG-BD shall systemically document the copies of dispatched accident data reports and dispatch dates.
- q) The requirement and procedures are in existence within the CAAB. However the AAIG-BD will share the data on yearly basis to identify any potential safety deficiency. Refer the ANO (AW) Letter - as evidence.
- r) The Head of AAIG-BD shall ensure to take accounts of the Mandatory Occurrence Reports (MORs), sent by different air operators with a view to identifying the potential Safety deficiencies. While the deficient areas will be dealt with the safety oversight organization of the CAA, the Head of AAIG-BD shall systemically document the copies of receipt reports with dates and coordinate with different agencies towards minimizing actual or potential safety deficiencies. Template of MOR documentation and Action by the AAIG-BD is as blow:

### TEMPLATE OF MOR DOCUMENTATION AND ACTION BY THE AAIG-BD

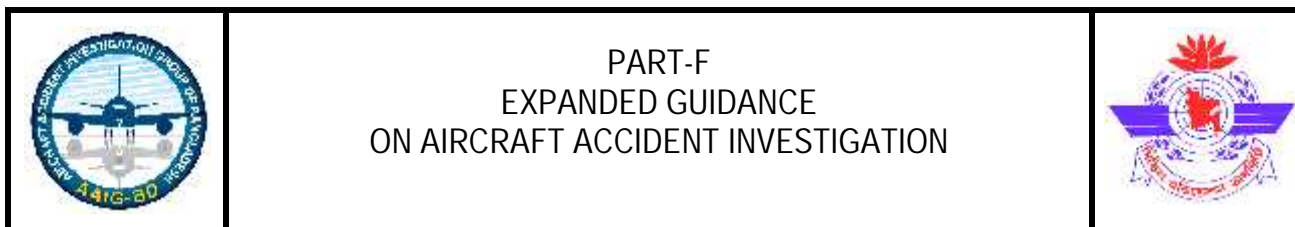
| SL | DATE | OPERATOR | AIRCRAFT | MOR | ACTION BY AAIG-BD | REMARKS |
|----|------|----------|----------|-----|-------------------|---------|
|    |      |          |          |     |                   |         |
|    |      |          |          |     |                   |         |

- s) The Head of AAIG-BD shall ensure to take accounts of the Voluntary Incident Reports (VIRs), sent by different air operators with a view to identifying the potential Safety deficiencies. While the deficient areas will be dealt with the safety oversight organization of the CAA, the Head of AAIG-BD shall systemically document the copies of receipt reports with dates and coordinate with different agencies towards minimizing actual or potential safety deficiencies. Template of MOR documentation and Action by the AAIG-BD is as blow:

### TEMPLATE OF VIR DOCUMENTATION AND ACTION BY THE AAIG-BD

| SL | DATE | OPERATOR | AIRCRAFT | VIR | ACTION BY AAIG-BD | REMARKS |
|----|------|----------|----------|-----|-------------------|---------|
|    |      |          |          |     |                   |         |
|    |      |          |          |     |                   |         |

- t) An accident and incident database is to be established in the following 'Format' to facilitate the effective analysis of information on actual or potential safety deficiencies and to determine any preventive actions required. The AAIG-BD shall review the database information on a regular basis to keep track on the actual or potential safety deficiencies with a view to determining any preventive actions required:



### 39. FORMAT OF ACCIDENT AND INCIDENT DATABASE (YEAR .....)

| OPERATOR | AIRCRAFT | INCIDENT/DATE | SERIOUS<br>INCIDENT/DATE | ACCIDENT/DATE |
|----------|----------|---------------|--------------------------|---------------|
|          |          |               |                          |               |
|          |          |               |                          |               |
|          |          |               |                          |               |

- a) The database created is to be in a standardized format as above to facilitate data exchange. The format is for storing data and keeping records. The format so designed and developed is compatible with ADREP/European Co-ordination Centre for Aviation Incident Reporting Systems (ECCAIRS). **Insert Database Format below ??**
- b) Bangladesh as a State authority responsible for the implementation of the SSP shall have access to the accident and incident database maintained by the AAIG-BD to support their safety responsibilities. To accomplish this, the AAIG-BD will create compatible database to share data of ASRTM established by CAAB. The AAIG-BD will also ensure the agreement with CAAB is accomplished through a MoU signed between the AAIG-BD and CAAB.

### 40. SAFETY RECOMMENDATIONS

- a) The AAIG-BD shall issue safety recommendations to the appropriate authorities, including those in other States, at any stage of an accident or incident investigation. Such safety recommendations may result from diverse sources, including safety studies. The AAIG-BD will keep appropriate documentation of the safety recommendations thus disseminated to all agencies. At the end or during the course of investigations, the IIC in consultation with the AAIT will identify any possible safety concern and will submit proposal on safety recommendations to address the safety concern to the Head of AAIG-BD. In doing this, the IIC and the AAIT should avoid a prescriptive approach in order to allow the final addressee of the safety recommendation to be able to identify the most appropriate solution to the safety issue highlighted. The Head of AAIG-BD will thereafter review the proposed safety recommendations in consultation with the AAIT and prepare the final safety recommendations for onward dispatch to the most appropriate addressees. The draft safety recommendations shall form as a part of the draft final report that needs to be sent to the accredited representatives, concerned agencies or ICAO for consultation. Similarly, proposal of safety recommendations can be prepared and approved in accordance with the same process as a result of safety studies of the series of occurrences as deemed necessary.
- b) Coherent with Section 40 a) the Head of the AAIG-BD will disseminate the safety recommendations to accident investigation authorities in other State(s) concerned and, when ICAO documents are involved, to ICAO.



PART-F  
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ON AIRCRAFT ACCIDENT INVESTIGATION



- c) The AAIG-BD shall ensure that at any stage of the investigation of an accident or incident, it recommends in a dated transmittal correspondence to the appropriate authorities, including those in other States, and to ICAO when ICAO documents are involved, any preventive action that it considers necessary to be taken promptly to enhance aviation safety. A State that receives safety recommendations shall inform the proposing State, in this case the AAIG-BD, 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. Whenever the Head of AAIG-BD receives the safety recommendations issued from any other State, it will record the responses to the safety recommendation issued. When the Head of AAIG-BD will receive a safety recommendation it will monitor the progress of the action taken in response to that safety recommendation. The Head of AAIG-BD will inform the Accident Investigation Section of ICAO's Air Navigation Bureau of safety recommendations of global concern (SRGC) issued, as well as the responses received concerning these recommendations. In brief the Head of AAIG-BD shall ensure the following:
1. Monitor the progress of any action taken in response to these safety recommendations;
  2. Inform the proposing State within 90 days of the preventive action taken or under consideration or the reasons why no action will be taken; and,
  3. Ensure that the organizations, agencies and/or individual implement safety recommendations fully and intimates AAIG-BD following implementation.
- d) The AAIG-BD will keep appropriate documentation of the safety recommendations thus disseminated to all agencies;
- e) The AAIG-BD will keep appropriate documentation of the implementation of the safety recommendations thus received from various organizations, agencies and/or individuals.

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PART-G  
INVESTIGATOR GUIDANCE (AAIT HANDBOOK)  
ON AIRCRAFT ACCIDENT INVESTIGATION



CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

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INVESTIGATOR GUIDANCE (AAIT HANDBOOK)

AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



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PART-G  
INVESTIGATOR GUIDANCE (AAIT HANDBOOK)

FOREWORD

1. This Accidents Investigation Handbook is an internal document of the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD). It contains guidance material and procedures relating to the responsibilities and functions of the AAIG-BD for the purpose of facilitating the AAIG-BD-appointed Investigators known as the AAIT in the performance of their investigation duties.
2. All AAIT Investigators are required to keep themselves fully conversant with the relevant sections of this Handbook. The Handbook provides mainly procedural and administrative guidance and does not necessarily address in detail the technical investigation procedures. For such procedures, the AAIT Investigators shall refer to the detailed guidance in the documents listed in other Parts of this Compendium.
3. This Handbook is intended to cover both accident and incident investigations. For reasons of brevity, applicability to incident investigation may not always be explicitly mentioned. In such cases, the guidance material and procedures provided in this Handbook are deemed to be applicable to incident investigation unless they are clearly not relevant or practical.
4. There are only a few non-Contracting States in the world. The AAIT is unlikely to be involved with them in the context of investigation. Nevertheless, the guidance material and procedures provided in this Handbook may be applied when we have to deal with non-Contracting States, unless the material or procedures are clearly not relevant or practical.
5. This Handbook is not regulatory in nature and is not a binding statement of policy, and is not all inclusive. Deviation from the guidance offered in this Handbook may at times be necessary to meet the specific needs of an investigation.
6. The Handbook will be revised when necessary as per the revision procedure outlined in Part-D and Part-F of this Compendium. The AAIT Investigators are encouraged to contribute ideas for improving the contents of this Handbook.

Capt Salahuddin M Rahmatullah  
Head of AAIG-BD  
30 June 2016



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INVESTIGATOR GUIDANCE (AAIT HANDBOOK)  
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APPROVAL AND AMENDMENT PROCEDURE

1. This Part will be updated or revised as and when necessary (e.g. to comply with new ICAO requirements, to address feedback from operational experience and audits, and make corrections and editorial improvement).
2. The revision will be made by the Head of AAIG-BD himself. He may also assign any member of the AAIG-BD to carry out the revision, in which case he will review and approve the revision eventually proposed by the member of the AAIG-BD concerned.
3. Upon the completion of the revision, Head of AAIG-BD or any member of the AAIG-BD concerned will make notes in the file CAAB/CS/32/AAIG-BD/AAIT to:
  - a) record the completion of the revision exercise; and,
  - b) Document the changes to be made to the Part.
4. A distribution list of the hardcopies of this Part can be found in the file CAAB/CS/32/AAIG-BD/AAIT
5. For amendment of the hardcopies of this Part, Head of AAIG-BD or any member of the AAIG-BD concerned will prepare an amendment instruction and will arrange for the amendment instruction and the related new/amended pages to be distributed and inserted into this Part.
6. The Investigator Guidance ('AAIT Handbook') on Aircraft Accident Investigation is hereby approved.

Capt Salahuddin M Rahmatullah  
Head of AAIG-BD  
30 June 2016





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INVESTIGATOR GUIDANCE (AAIT HANDBOOK)  
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## PART-G

### INVESTIGATOR GUIDANCE (AAIT HANDBOOK) ON AIRCRAFT ACCIDENT INVESTIGATION



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## PART-G INVESTIGATOR GUIDANCE (AAIT HANDBOOK) ON AIRCRAFT ACCIDENT INVESTIGATION



### PART-G INVESTIGATOR GUIDANCE (AAIT HANDBOOK) INTERNATIONAL FRAMEWORK

#### 1. INTERNATIONAL CIVIL AVIATION ORGANISATION

- a) Standards and Recommended Practices for Aircraft Accident Inquiries were first adopted by the ICAO Council on 11 April 1951 pursuant to Article 37 of the Convention on International Civil Aviation (Chicago Convention, 1944) and were designated as Annex 13 to the Convention.
- b) The current version of Annex 13 is the 10<sup>th</sup> Edition dated July 2010, incorporating Amendment 14 which became applicable on 14 November 2013.

#### 2. OBJECTIVE OF INVESTIGATION

- a) Investigators shall bear in mind ICAO's objective of investigation as stated in paragraph 3.1 of Annex 13 to the Chicago Convention, viz.:

The sole objective of an aircraft accident or incident investigation is to prevent future accidents and incidents. The purpose of an investigation is not to apportion blame or liability.

- b) ICAO's emphasis is on remedial action. Any investigation conducted under the (to quote relevant legislation here) the provisions of ICAO Annex 13 is separate from any judicial or administrative proceedings to apportion blame or liability.
- c) The extent of the investigation and the procedure to be followed in carrying out an investigation will depend on the lessons that can be expected to be drawn from the investigation for the improvement of safety.
- d) An aircraft accident or incident suggests hazards or deficiencies in the aviation system. Subject to paragraph 3 above, the investigation will attempt to identify all immediate and underlying systemic causes or contributing factors of an accident or incident. The investigation should also determine the facts, conditions and circumstances pertaining to the survival or non-survival of the occupants of the aircraft.
- e) At the end or even in the course of the investigation, appropriate safety actions may be recommended, aiming at avoiding the hazards and eliminating the deficiencies in the aviation system, as well as improving the crashworthiness of the aircraft (thus preventing or minimizing injuries to aircraft occupants in future accidents).





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### 3. ICAO DEFINITIONS ON ACCIDENT INVESTIGATION

The AAIG-BD has ensured to adopt the definitions as listed in Chapter 1 of Annex 13. While doing so, the AAIG-BD has also ensured that in conformity with the Primary Aviation Legislation as well as the Specific Operating Regulations and through its Air Navigation Orders and Guidance Materials the definitions for “accident”, “incident”, “serious incident” and “investigator-in-charge” as contained in Annex 13 have been adopted. In addition, the AAIG-BD has made necessary amendments to portion of the ‘Definitions’ relevant to Aircraft Accident and Incident Investigation to remain at par with the up-to-date information on the ‘Definitions’ provided in ICAO Annex 13. Accordingly, the following definitions have been compiled:

Aircraft Accident Investigation Team (AAIT) shall mean the Team comprising of the Investigator-in-charge together with the other members assigned by the AAIG-BD to conduct investigation on any serious incident or accident.

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

- a) A person is fatally or seriously injured as a result of:
  - 1. Being in the aircraft, or
  - 2. Direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
  - 3. Direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or
- c) The aircraft sustains damage or structural failure which:
  - 1. Adversely affects the structural strength, performance or flight characteristics of the aircraft, and
  - 2. Would normally require major repair or replacement of the affected component, Except for engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the Radom); or,



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### 3. The aircraft is missing or is completely inaccessible.

Note 1. For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

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

Accredited representative shall mean - 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 shall mean - 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.

AAIG-BD shall mean, Accident Investigation Group of Bangladesh, formed under the Legislative Provision outlined in the Bangladesh ordinance 1960 that makes provision for the Ministry of Civil Aviation and Tourism to enact Civil Aviation Authority Rules empowering the Chairman of the Authority through the designation of a specific agency/commission/board or other specific body to conduct aircraft accident and serious incident investigations

Aircraft shall mean - Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

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

Contributing factors shall mean - 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.

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

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



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

Investigator-in-charge shall mean - A person charged, on the basis of his or her qualifications, with the responsibility for the organization, conduct and control of an investigation. Nothing in the above definition is intended to preclude the functions of an investigator-in-charge being assigned to a commission or other body.

Maximum mass shall mean - Maximum certificated take-off mass.

Operator shall mean - A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Preliminary/Initial Report shall mean - The communication used for the prompt dissemination of data obtained during the early stages of the investigation.

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

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

The incidents listed below are 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:

- a) Near collisions requiring an avoidance maneuver to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate;
- b) Collisions not classified as accidents;
- c) Controlled flight into terrain only marginally avoided;



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- d) Aborted take-offs on a closed or engaged runway, on a taxiway or unassigned runway;
- e) Take-offs from a closed or engaged runway, from a taxiway or unassigned runway;
- f) Landings or attempted landings on a closed or engaged runway, on a taxiway or unassigned runway;
- g) Gross failures to achieve predicted performance during take-off or initial climb;
- h) Fires and/or smoke in the cockpit, in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents;
- i) Events requiring the emergency use of oxygen by the flight crew;
- j) Aircraft structural failures or engine disintegrations, including uncontained turbine engine failures, not classified as an accident;
- k) Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft;
- l) Flight crew incapacitation in flight. Fuel quantity level or distribution situations requiring the declaration of an emergency by the pilot, such as insufficient fuel, fuel exhaustion, fuel starvation, or inability to use all usable fuel on board;
- m) Runway incursions classified with severity A;
- n) Take-off or landing incidents. Incidents such as under-shooting, overrunning or running off the side of runways;
- o) System failures, weather phenomena, operations outside the approved flight envelope or other occurrences which caused or could have caused difficulties controlling the aircraft;
- p) Failures of more than one system in a redundancy system mandatory for flight guidance and navigation;
- q) The unintentional or, as an emergency measure, the intentional release of a slung load or any other load carried external to the aircraft.



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Serious injury shall mean - 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/tendon damage; or
- d) Involves injury to any internal organ; or
- e) Involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or
- f) Involves verified exposure to infectious substances or injurious radiation.

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

State of Manufacture shall mean - The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

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

State of the Operator shall mean - 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 shall mean - The State on whose register the aircraft is entered. In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry.

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

Substantial Damage shall mean damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft which would normally require major repair or replacement of the affected component.



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#### 4. RESPONSIBILITY OF STATES FOR INSTITUTING AND CONDUCTING THE INVESTIGATION

##### 4.1 Accidents or serious incidents in the territory of an ICAO State to aircraft of another ICAO State

- a) Accident - When an accident has occurred, the State of Occurrence shall institute an investigation into the circumstances of the accident. The State of Occurrence shall be responsible for the conduct of the investigation, but it may delegate the whole or any part of the conducting of such investigation to another State, or a regional accident investigation organisation, by mutual arrangement and consent. The State of Occurrence shall use every means to facilitate the investigation.
- b) Serious incident - When a serious incident has occurred, the State of Occurrence shall institute an investigation into the circumstances of the serious incident when the aircraft is of a maximum certificated take-off mass of over 2 250 kg. The State of Occurrence may delegate the whole or any part of the conducting of such investigation to another State, or a regional accident investigation organisation, by mutual arrangement and consent. The State of Occurrence shall use every means to facilitate the investigation.
- c) When the whole investigation is delegated to another State, such a State is expected to be responsible for the conduct of the investigation, including the issuance of the investigation Final Report and the ADREP reporting.

Note: When a part of the investigation is delegated, the State of Occurrence usually retains the responsibility for the conduct of the investigation.

##### 4.2 Accidents or serious incidents in the territory of the State of Registry

If the State of Registry is the State of Occurrence, it will discharge the obligation of the State of Occurrence.

##### 4.3 Accidents or serious incidents in the territory of a non-ICAO State

If the non-Contracting State of Occurrence 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 endeavour to institute and conduct an investigation in co-operation with the State of Occurrence but, failing such co-operation, should itself conduct an investigation with such information as is available.





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4.4 Accidents or serious incidents outside the territory of any State

- a) The State of Registry shall institute and conduct any necessary investigation. However, it may delegate the whole or any part of the investigation to another State by mutual arrangement and consent.
- b) 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.
- c) 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, or to a regional investigation organisation, by mutual arrangement and consent.

5. RESPONSIBILITY OF STATES INVOLVED IN AN INVESTIGATION

Annex 13 provisions concerning the State of the Operator apply only when an aircraft is leased, chartered or interchanged and when the State is not the State of Registry and if it discharges, in respect of Annex 13, in part or in whole, the functions and obligations of the State of Registry.

5.1 Responsibility of the State conducting the investigation

- a) The accident investigation authority shall have independence in the conduct of the investigation and have unrestricted authority over its conduct. The investigation shall normally include:
  - 1. The gathering, recording and analysis of all relevant information
  - 2. The issuance, if appropriate, of safety recommendations
  - 3. The determination, if possible, of the causes and/or contributing factors
  - 4. The completion of the Final Report
- b) The State conducting an investigation may call upon the best technical expertise from any source.
- c) If neither the State of Registry nor the State of the Operator appoints an accredited representative to participate in the investigation, the State conducting the investigation should invite the operator to participate.



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- d) If neither the State of Design nor the State of Manufacture appoints an accredited representative to participate in the investigation, the State conducting the investigation should invite the organizations responsible for the type design and the final assembly of the aircraft to participate.
- e) Any investigation conducted under the provisions of Annex 13 shall be separate from any judicial or administrative proceedings to apportion blame or liability.

5.2 Participation of other States

- a) In the event of an accident or serious incident, the following States will be entitled to participate in the investigation:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State of Design
  - 4. State of Manufacture
  - 5. Any other state which may provide information, facilities or experts
- b) If these States consider it unnecessary to appoint accredited representatives to participate in the investigation, they should so advise the State of Occurrence with a minimum of delay.
- c) However, when the State conducting an investigation of an accident to an aircraft of a maximum certificated take-off mass of over 2,250 kg specifically requests participation by the State of Registry, the State of the Operator, the State of Design or the State of Manufacture, the State(s) concerned shall each appoint an accredited representative.
- d) The State of Registry or the State of the Operator shall appoint one or more advisers, proposed by the operator, to assist its accredited representative.
- e) The State of Design and the State of Manufacture shall be entitled to appoint one or more advisers, proposed by the organizations responsible for the type design and the final assembly of the aircraft, to assist their accredited representatives.
- f) Any State which on request provides information, facilities or experts to the State conducting the investigation will be entitled to appoint an accredited representative to participate in the investigation





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- g) Any State that provides an operational base for field investigations, or is involved in search and rescue or wreckage recovery operations, or is involved as a State of a code-share or alliance partner of the operator may also be invited to appoint an accredited representative to participate in the investigation.
- h) A State which has a special interest in an accident by virtue of fatalities or serious injuries to its citizens shall be entitled by the State conducting the investigation to appoint an expert to participate in the investigation.

5.3 Responsibility of other States

- a) All States shall, on request from the State conducting the investigation of an accident or incident, provide that State with all the relevant information available to them.
- b) Any State, the facilities or services of which have been, or would normally have been, used by an aircraft prior to an accident or an incident, and which has information pertinent to the investigation, shall provide such information to the State conducting the investigation.
- c) The State of Registry and the State of the Operator, on request from the State conducting the investigation, are also obliged to provide pertinent information on any organization whose activities may have directly or indirectly influenced the operation of the aircraft.
- d) When the State of Occurrence is not aware of an accident or serious incident, the State of Registry or the State of the Operator, as appropriate, shall forward a notification of such an incident to the State of Occurrence, the State of Design and the State of Manufacture.
- e) When an aircraft involved in an accident or serious incident lands in a State other than the State of Occurrence, 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.
- f) When an accident or serious incident occurs in a non-Contracting State or outside the territory of any State, and when the State of Registry institutes an investigation, then the State of Registry shall send a notification with a minimum of delay to the State of the Operator, the State of Design, the State of Manufacture and ICAO (if the aircraft involved is of a maximum certificated take-off mass of over 2,250 kg or is a turbojet-powered aeroplane).



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

5.4 Entitlement of Accredited Representatives

- a) A State entitled to appoint an accredited representative shall also be entitled to appoint one or more advisers to assist the accredited representative in the investigation.
- b) Advisers assisting an accredited representative shall be permitted, under the accredited representative's supervision, to participate in the investigation to the extent necessary to enable the accredited representative to make his participation effective.
- c) Participation in the investigation shall confer entitlement to participate in all aspects of the investigation, under the control of the investigator-in-charge, in particular to:
1. Visit the scene of the accident
  2. Examine the wreckage
  3. Obtain witness information and suggest areas of questioning
  4. Have full access to all relevant evidence as soon as possible
  5. Receive copies of all pertinent documents
  6. Participate in readouts of recorded media
  7. Participate in off-scene investigative activities such as component examinations, technical briefings, tests and simulations
  8. Participate in investigation progress meetings including deliberations related to analysis, findings, causes, contributing factors and safety recommendations
  9. Make submissions in respect of the various elements of the investigation
- d) However, participation of States other than the State of Registry, the State of the Operator, the State of Design and the State of Manufacture may be limited to those matters which entitled such States to participate.
- e) The accredited representatives and their advisers shall provide the State conducting the investigation with all relevant information available to them, and shall not divulge information on the progress and the findings of the investigation without the express consent of the State conducting the investigation.



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5.5 Entitlement of the expert of the State having suffered fatalities or serious injuries to its citizens

- a) The expert appointed by the State which has suffered fatalities or serious injuries to its citizens is entitled to:
  - 1. Visit the scene of the accident
  - 2. Have access to the relevant factual information, which is approved for public release by the State conducting the investigation, and information on the progress of the investigation
  - 3. Receive a copy of the Final Report
- b) Such State will not be precluded from also assisting in the identification of victims and in meetings with survivors from that State.

6. OBLIGATION TO INVESTIGATE

- a) The Investigator in Charge (IIC) shall cause an investigation into an accident or a serious incident in the following circumstances:
  - 1. where the accident or serious incident occurs in Bangladesh;
  - 2. where the accident or serious incident occurs in any non-Contracting State which does not intend to carry out an investigation of the accident in accordance with Annex 13 and involves a Bangladesh aircraft or an aircraft operated by a Bangladesh operator;
  - 3. where the accident or serious incident involves a Bangladesh aircraft or an aircraft operated by a Bangladesh operator and the investigation has been delegated to Bangladesh by another Contracting State by mutual arrangement and consent;
  - 4. where the accident or serious incident occurs in a location which cannot be definitely established as being in the territory of any State and involves a Bangladesh aircraft.

Note: ICAO has been requiring States to investigate accidents. ICAO has through Amendment 13 to Annex 13 required that a State shall also investigate a serious incident when the aircraft is of a maximum certificated take-off mass of over 2,250 kg. The Bangladesh investigation legislation requires all serious incidents to be investigated, regardless of the aircraft's maximum certificated take-off mass.

b) The Investigator in Charge may, when he expects to draw air safety lessons from it, cause an investigation to be carried out into an incident, other than a serious incident, which occurs:

1. in Bangladesh; or
2. outside Bangladesh involving a Bangladesh aircraft or an aircraft operated by a Bangladesh operator.

c) The Investigator in Charge (IIC) may, with the approval of the AAIG-BD, delegate the task of carrying out an investigation into an accident or a serious incident to another State or a regional investigation organization by mutual arrangement and consent. However, Bangladesh will still need to facilitate to the best of its ability the investigation carried out by that State or the regional investigation organization.

## 7. BANGLADESH AVIATION LEGISLATION

a) The main instruments are:

1. The Relevant Portions on Aircraft Accident Investigation of the Civil Aviation Ordinance 1960;
2. The Relevant Portions on Aircraft Accident Investigation of the Civil Aviation Rules 1984;
3. The Relevant Portions on Aircraft Accident Investigation of the Air Navigation Orders;
4. The Relevant Portions on the Civil Aviation Authority of Bangladesh (Aerodrome) Regulations

## 8. PREPARATION FOR INVESTIGATION - STANDBY ARRANGEMENT

### 8.1 Duty Officer System

- a) The industry will report accidents and incidents to the AAIG-BD Duty Officer who will then alert the Investigator in Charge (IIC). Please refer to Part-F (Expanded Guidance).
- b) The contact number of the Duty Officer is (+xxxx) xxx xxx xxx (Mobile). Please refer to the Yearly Roster.

- c) The Duty Officer will be supported by a Standby Duty Officer Please refer to the Yearly Roster.

## 8.2 Responding to accident/serious incident

- a) When the Duty Officer receives an accident or serious incident notification, he shall proceed to the accident/incident site quickly, where appropriate. The Deputy Duty Officer will help the Duty Officer arrange for activation of the other investigators so as to allow the Duty Officer to concentrate on the on-site work, and may return to the office to collect the necessary equipment before joining the Duty Officer at the occurrence site.
- b) The other investigators, on being activated, shall proceed to the accident/incident site quickly or to the Accident Investigation Command Centre or to any other location as instructed.
- c) If the accident or serious incident has occurred in Bangladesh, the Duty Officer shall take the necessary actions on site until the investigator-in-charge arrives and keep the Investigator in Charge (IIC) informed of the action taken.

## 8.3 Preparation for Overseas Assignment

All investigators shall arrange their personal affairs to enable them to be ready to depart for overseas investigation with a minimum of delay.

## 8.4 Maintaining Contact with Investigators

- a) The Administration Support Section shall maintain a list of telephone/hand-phone/pager contact numbers of all investigators. All investigators shall inform the Administration Support Section of any changes to their contact numbers as soon as possible.
- b) All investigators shall ensure that their phones and pagers are functioning and, when they are not, shall forward alternate phone/fax/pager contact numbers to the Administration Support Section of AAIG-BD.



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### 9. INVESTIGATOR'S PERSONAL DUTY AND RESPONSIBILITY

#### 9.1 General

Aircraft is a complex machine and aviation is a complex industry. The aviation environment is also complex. Investigators must try their best to keep abreast of all related developments, through reading, gathering information from counterparts and experts in other countries and sharing such information amongst them.

#### 9.2 Safety

- a) AAIT investigators should be aware of the potential hazards at an accident site and the precautions to be taken.
- b) Investigator should be aware of the personal protective equipment needed for use by investigators at the accident site or when performing off-site examinations and tests on wreckage parts.

#### 9.3 Immunization

Investigators shall immunize themselves against tetanus, influenza, and Hepatitis A and Hepatitis B.

#### 9.4 Physical fitness

As they may be required to access difficult terrain (e.g. mountains, deserts, jungles, swamps), investigators should keep themselves physically fit.

#### 9.5 Personal Field kit

- a) AAIT investigators are issued with personal investigation field kit and are responsible for ensuring that the consumables are replenished after each field deployment. The investigators are also required to ensure that life expired items are replaced with new ones.
- b) AAIT investigators are to obtain replenishments from the Administration Support Section of the AAIG. The Administration Support Section will maintain and monitor the list of life limited items issued to the investigators so as to be able to plan the replenishment schedules.



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### 10. INVESTIGATION FIELD KIT

The following is a typical list of items that investigators may need at the accident site. Usually, there is no need for each investigator to bring all the items in the list.

#### 10.1 General

- a) Identification papers, investigator's official tag, armband or high-visibility jacket;
- b) Relevant documents (e.g. regulations, accident investigation manual and handbook, checklists, report forms);
- c) Appropriate aircraft manuals and parts catalogues;
- d) Emergency funds.

#### 10.2 Survey equipment

- a) Large-scale maps of the accident area;
- b) Magnetic compass;
- c) Global Positioning System receiver;
- d) Surveying equipment [Note: Debris mapping may be contracted out.];
- e) Clinometer;
- f) Navigational computer, protractor and dividers;
- g) Measuring tape, at least 20 m long, and a 30-cm-long ruler;
- h) Reel of cord, 50 to 300 m long.

#### 10.3 Marking Equipment

- a) Tie-on tags;
- b) Flag markers and stakes;
- c) Writing material, graph paper, waterproof notebooks and clipboards;
- d) Pens, pencils, grease pencils and permanent markers.

#### 10.4 Tools and Sampling Materials

- a) Tool kit;
- b) Waterproof flashlight with spare batteries and bulbs;
- c) Small magnet;
- d) Multi-purpose knife;
- e) Inspection mirror;
- f) Magnifying glass (x10 magnified);
- g) Containers (e.g. antistatic type for electronic components with non-volatile memory) and sterile bottles (for aircraft fuel, oil and fluid samples, as well as for pathological fluid and tissue samples);
- h) Syringes;





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- i) Plastic bags (assorted) and plastic sheets;
- j) Masking tape, duct tape.

#### 10.5 Miscellaneous Items

- a) First-aid kit
- b) Recording equipment
  - 1. Camera (digital/conventional)
  - 2. Video camera
  - 3. Small tape recorder, spare cassettes and batteries
- c) Model aircraft
- d) Protective gear
  - 1. Heavy gloves, protective overalls and other protective equipment, such as hard hats, goggles and face masks
  - 2. Protective clothing and equipment to protect against biological hazards (see Chapter 6 for more details)
- e) Binoculars
- f) Communication equipment
  - 1. Portable means of on-site communication, e.g. hand-phone
  - 2. Lap-top and computer
- k) Facsimile machine

### 11. DUTY OFFICER'S BAG

#### 11.1 General

The Duty Officer's bag contains basic equipment to enable the officer to carry out urgent actions to preserve any evidence which otherwise may become obliterated. The list of equipment contained in the bag is not meant to be exhaustive.

#### 11.2 Responsibility for the Duty Officer's Bag

During the change of duty, the officer taking over the duty and the Duty Officer's bag should go through the inventory to ensure that all the items in the bag are accounted for and that consumables and life limited items are replenished. He will then sign in a record book in the bag.





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### 11.3 Contents of the Duty Officer's Bag

Following are contents of the Duty Officer's bag:

- a) Hand-phone
- b) Single wheel walking measure
- c) GPS
- d) 18 feet measuring tape
- e) Digital camera
- f) Batteries AA size (4 pieces)
- g) Torchlight (with batteries) - waterproof
- h) Rubber, plastic and leather gloves
- i) Reflective vest
- j) Tape recorder (digital)
- k) Plastic bags
- l) Combination plier - 8"
- m) Screwdriver - plain 8"
- n) Screwdriver - Philips - No. 2
- o) First aid kit
- p) Protective spectacles
- q) Stationery (pen, pencil, marker pen, stapler, scissors, scotch tape, etc)
- r) Accident Investigation Handbook

## 12. PREPARATION FOR INVESTIGATION (HAZARDS AT ACCIDENT SITES)

### 12.1 General

- a) The AAIG-BD shall provide the AAIT investigators with appropriate equipment to enable the conduct of investigations; such as tools, survey equipment, marking equipment, etc. and guidance material/procedures.
- b) There are five kits available for Inspectors for use on various sites and circumstances. Inspectors proceeding on field should determine which of these are required for the particular investigation and obtain the kits before they leave for the site. The Kits are:
  - 1. Personal Issue Kit
  - 2. Investigation field kit
  - 3. Tool kit – tools & equipment
  - 4. Personnel Protective Equipment
  - 5. First Aid Kit



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- c) The AAIG-BD shall make arrangements to ensure that investigators have their investigation field kits and essential personal items packed and ready to proceed without delay to the accident site and provide communication means and transportation to the investigators to enable the conduct of investigations.
- d) The list of the collective and individual equipment available within the AAIG-BD shall be maintained up-to-date.

### 12.2 Personal Issue Kit

One for each assigned Inspector, there are several numbers of personal issue kits.

| ITEM | DESCRIPTION                            | QUANTITY |
|------|--|----------|
| 01   | Tabards- with CAAB logo (free size)    | 07       |
| 02   | Tabards- without CAAB logo (free size) | 07       |
| 03   | Rain Coats – size - medium             | 05       |
|      | Rain Coats – size - Large              | 02       |
| 04   | Hats                                   | 07       |
| 05   | Boots – size - 6                       | 01       |
|      | Boots - size - 7                       | 03       |
|      | Boots - size - 8                       | 02       |
|      | Boots - size - 10                      | 01       |
| 06   | Safety Gloves - Heavy                  | 07       |
| 07   | Safety Gloves - Light                  | 07       |
| 08   | Inspector's Bags                       | 07       |
| 09   | Whistles                               | 06       |
| 10   | Pen Knives (blade length – 3 inch )    | 07       |
| 11   | Flash Lights                           | 07       |
| 12   | Batteries (For flash Light)            | 07       |
| 13   | Pair of scissors                       | 07       |
| 14   | Field Note books                       | 07       |
| 15   | Ruler                                  | 07       |
| 16   | Inspectors Files                       | 07       |
| 17   | Dusting Brush                          | 07       |
| 18   | Mobile Pouches                         | 07       |
| 19   | Corrective Pens                        | 07       |



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12.3 Recording of Personal Issue Kit

It is a requirement that all inspectors sign for their kits as a record of issued to them. The records must be kept in the AAIT's store room.

12.4 Replacement of Clothing and Equipment

- a) Clothing and equipment will be replaced when the relevant items become unserviceable through normal wear and tear having regard to the inspector's duties. Protective equipment shall be replaced at regular intervals in order to maintain the protective value of the equipment where such replacement is recommended by the equipment manufacturer or is contained in the relevant standard.
- b) The AAIT shall provide investigators with protective equipment and guidelines to address biological hazards and other hazards at accident sites and appropriately supply with the required documents to effectively accomplish its functions and responsibilities.



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### 12.5 Investigation Field Kit

| NO                  | ITEM                              | QUANTITY |
|---------------------|-----------------------------------|----------|
| Survey Equipment    |                                   |          |
| 01                  | Map of Bangladesh                 | 01       |
| 02                  | Map of Provincial                 | 07       |
| 03                  | Map of World                      | 01       |
| 04                  | Measuring Tape – 30 m             | 01       |
| 05                  | Measuring Tape -10ft              | 01       |
| 06                  | Nylon Rope                        | 01       |
| 07                  | Twin/Cord                         | 03       |
| 08                  | Cordoning Tape                    | 01       |
| 09                  | GPS                               | 01       |
| 10                  | Compass with Inclinator           | 01       |
| Marking Equipment   |                                   |          |
| 11                  | Sealing Tapes                     | 04       |
| 12                  | Sticker Identification            | 01       |
| 13                  | Marking Pen                       | 02       |
| 14                  | Rubber Bands                      | 02       |
|                     | Graph Papers                      | 03       |
| Miscellaneous Items |                                   |          |
| 15                  | Tape Recorder (Portable)          | 01       |
| 16                  | Recording Tapes ( 1 hr duration)  | 03       |
| 17                  | Digital Voice Recorder (pending ) | 01       |
| 18                  | Stop Watch                        | 01       |
| 19                  | Cloth, Dusting                    | 01       |
| 20                  | Mega Phone                        | 01       |
| 21                  | Batteries for Mega Phone          | 04       |
| 22                  | Digital Camera                    | 01       |
| 23                  | Binocular with a Tripod           | 01       |



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## 12.6 Tool Kit – Tools & Equipment

| NO | ITEM                                     | QUANTITY |
|----|--|----------|
| 01 | Tool Kit                                 | 01       |
| 02 | Mechanic's Mirror                        | 01       |
| 03 | Magnifying Glasses                       | 02       |
| 04 | Containers - volume - 7.2 m <sup>3</sup> | 01       |
|    | - volume - 5.4 m <sup>3</sup>            | 01       |
|    | - volume - 2.3 m <sup>3</sup>            | 01       |
| 05 | Plastic Bags (disposable)                | 10       |
| 06 | Sample Bottles – volume – 1 L            | 04       |
| 07 | Sample Bottles – volume – 250 ml         | 01       |
| 08 | Air Tight Baskets                        | 03       |

## 12.7 Personal Protective Equipment

| NO | ITEM                                      | QUANTITY |
|----|---|----------|
| 01 | Dark blue overalls (Reusable)             | 04       |
| 02 | Goggles (Reusable)                        | 02       |
| 03 | Full face mask with twin filter cartridge | 01       |
| 04 | Half face mask with twin filter cartridge | 02       |
| 05 | Safety helmet                             | 07       |
| 06 | Safety Gloves –Surgical ( 100 numbers)    | 01 box   |

## 12.8 First Aid Kit

| NO | ITEM                      | QUANTITY |
|----|---------------------------|----------|
| 01 | Antiseptic soothing cream | 01       |
| 02 | Cotton wool roll          | 01       |
| 03 | Dettol bottle             | 01       |
| 04 | Dettol soap               | 01       |
| 05 | Gauze packet              | 01       |
| 06 | Mosquito Repellant bottle | 01       |
| 07 | Plaster Roll              | 01       |
| 08 | Siddhalepa packet         | 01       |
| 09 | Pair of scissor           | 01       |
| 10 | Soframycin skin cream     | 01       |
| 11 | Surgical spirit bottle    | 01       |

## 13. INTERVIEWING TECHNIQUES

### 13.1 Purpose of interviews

- a) Information collected from interviews is used to confirm, clarify, or supplement information learnt from other sources. In the absence of other data, interviews can become the singular source of information.
- b) The role of an investigator, as an interviewer, is to obtain from witnesses evidence that is accurate, complete, and as detailed as possible. To accomplish this, the investigator must:
  1. Be prepared
  2. Have a clear objective
  3. Have a good knowledge of the occurrence and related background information
  4. Be able to adapt to the witness' style
  5. Be willing to go beyond the actual facts



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- c) Witnesses for an occurrence investigation can include surviving flight crew and cabin crew, passengers, next-of-kin, eyewitnesses, air traffic controllers, maintenance personnel, training personnel, rescue and firefighting personnel, and management. Interviews should be conducted as soon as practicable to avoid:
  - 1. Loss of perishable information from fading memory
  - 2. Interpretation and rationalization of events
  - 3. Contamination caused by exchange of information (e.g. news media, other witnesses)
- d) If it is not practicable to immediately interview individuals whose information is perishable, the investigators should request that they prepare a written statement.
- e) The investigators shall bear in mind that an interview is NOT an interrogation.

### 13.2 Preparing for the interview

- a) The investigators should take time to thoroughly prepare for the interview and consider doing the following:
  - 1. Follow appropriate company or agency protocol when arranging for the interview
  - 2. Assess the audience and dress accordingly
  - 3. Prepare a brief on the status of the investigation
  - 4. Study the background information (e.g. relevant manuals, regulations)
  - 5. Prepare for technical descriptions and explanations
  - 6. Review the following:
    - a. The facts relating to the crash sequence
    - b. The ATC or CVR/FDR tapes, if applicable
    - c. Technical information (e.g. aircraft systems)
    - d. Any operational peculiarities in procedures
    - e. The crew's personal records
    - f. Human performance references to identify relevant questions
    - g. ATS and airport references, if relevant
    - h. Any legal aspects
  - 7. Ensure all relevant documents and equipment (e.g. models, maps, pictures, diagrams of aircraft seat rows/exits/lavatories/galleys) are available
  - 8. Define the general objectives of the interview



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9. Prepare a set of appropriate questions to address all areas of concern during the interview
10. Request the assistance of experts for interviews of a highly technical nature

### 13.3 The interview process

- a) An interview is normally structured in three parts: an opening, a main body and a closing. An interview session should not last for more than two hours.
- b) The number of people attending the interview should be as few as possible, e.g. two interviewers and the interviewee (plus maybe an expert). The interviewee may be allowed to be accompanied by a third person during the interview, provided that this person is not his superior. This person is not allowed to answer questions or to suggest answers to questions. Permission for his presence may be withdrawn if he is not cooperative.
- c) If possible, the investigators should conduct interviews in a neutral location and select a location that is quiet and comfortable, free from interruptions and familiar to the interviewee (if appropriate).
- d) The investigators should determine the language of choice of the interviewee. If the language is not one spoken by the interviewing investigators, arrangement should be made for another qualified investigator suitably fluent in that language to conduct the interview. If such an investigator is not available or if the interviewee cannot communicate effectively in a language spoken by the investigator, arrangement will have to be made for an interpreter.

#### 1. The Interview Process - Opening

- a) When opening an interview, the investigators should reassure the interviewee about:
  1. The purpose of the investigation (not for blame)
  2. Their roles as investigators in the accident
  3. The goals of the interview
  4. The importance of the information the interviewee may provide
  5. The interviewee's rights
  6. Protection of the statement made by the interviewee
  7. Use of tape recorder, if the interviewee has no objection
  8. The interview procedure to be followed





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2. Establishment of Rapport

a) The investigators should establish a rapport with the interviewee at the outset by:

1. Being polite
2. Introducing themselves
3. Having mobile phones turned off before the interview
4. Behaving in a natural manner and not making the interview seem artificial
5. Keeping interruptions to a minimum
6. Striving for an atmosphere of friendly conversation
7. Intervening only enough to steer the conversation in the desired direction
8. Displaying a sincere interest

3. The Interview Process - Main Body

a) The investigators should begin the main body of the interview with a “free recall” question to let the interviewee talk about what he knows of the occurrence or subject matter. Such a free recall question allows the interviewee:

1. To ease into the interview in a more relaxed manner.
2. To feel that what he has to say is significant.
3. To provide information which is uncontaminated by the investigators.

b) As the interview progresses, the investigators may use a mixture of other types of questions:

1. Open-ended questions would evoke rapid and accurate descriptions of the events and lead to more participation from the interviewee.
2. Specific questions are necessary to obtain detailed information and may also prompt the interviewee to recollect further details.
3. Closed questions produce “yes” or “no” answers.
4. Indirect questions might be useful in delicate situations.

c) Investigators should avoid questions with the definite article unless the object in question has already been mentioned by the interviewee. For example, they should ask “Did you see a broken strut?” rather than “Did you see the broken strut?” They should also use neutral sentences without adjectives or figurative verbs and avoid leading questions. For example, they should ask “Which way was the aircraft travelling?” rather than “Was the aircraft travelling west?”



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4. Other interview tips for the investigators

- a) To design the questions so that they do not mention objects before the interviewee mentions them. A question which mentions some objects (whether the object existed or not) tends to cause the interviewee to assert that he saw the object.
1. To try to get the interviewee to cooperate in a general way before asking them to cooperate in a specific way.
  2. To use indirect questioning for questions of a very personal nature.
  3. To let the interviewee fill in the information gaps himself.
  4. To remain objective and avoid making evaluations early in the interview.
  5. To remember that the interviewee approaches the occurrence from a different perspective than the investigators'.
  6. To adapt to the situation and to the interviewee, as the interview is a dynamic process.
  7. To be aware of possible biases when assessing what was said during the interview.
  8. Not to allow the interviewee's personality to influence our interpretation of the interview.
  9. Not to accept any information gained in an interview at face value, but to use the information to confirm, clarify or supplement information from other sources.

5. The interview process - Closing

- a) In closing an interview, the investigators should consider the following:
1. To summarize the important points.
  2. To give the interviewee an opportunity to expand on any points previously covered, add further points which he feels are significant, or ask questions.
  3. To reassure and thank the interviewee.
  4. To determine the interviewee's availability for further interviews.
  5. To let the interviewee know how to contact the AAIT in the future.

13.4 Eyewitnesses

- a) The investigators should obtain the following information from all eyewitnesses of an accident or incident:
1. Personal data to complete the interview record.



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2. Time of observation of the occurrence, if noted by the eyewitness. Otherwise, time as determined in relation to other events.
3. Location of the eyewitness at the time of the observation, to be pinpointed on a map or aircraft diagram, if necessary.
4. Weather, light and visibility conditions
5. Any obstructions to visibility or sound.
6. What drew the attention of the eyewitness to the aircraft.
7. Anything heard or seen concerning the aircraft, and the actions of other nearby aircraft.
8. Actions taken by the eyewitness relating to the occurrence.
9. Actions taken by others such as rescue and firefighting personnel.
10. Anything taken from the wreckage scene and by whom.
11. Any photographs or video taken and by whom.
12. Any other eyewitnesses, their names and addresses.
13. Any other agency who previously interviewed the witness about the occurrence, such as Police or media.

### b) Tips for the interviewing of eyewitnesses:

1. If possible, to interview eyewitnesses at the location where they observed the occurrence.
2. To conduct the interview one-on-one, away from other people.
3. To get eyewitnesses to tell us everything they saw, by starting with a question like "Tell me what first directed your attention to the aircraft."
4. To let the eyewitnesses demonstrate a maneuver with an aeroplane model rather than describe it verbally.

### c) Eyewitnesses may be re-interviewed for specific information, but it has to be borne in mind that their initial account would likely be the most accurate.

## 13.5 Handling of Difficult Witnesses

- ### a) Crew members – They might be hesitant, defensive or unable to communicate information, possibly because of the following factors:
1. Guilty feelings that they survived while other died, or grief over deaths of friends.
  2. Struggle or torment over their role in the occurrence.
  3. Concern with regulatory actions, loss of their ratings or jobs.
  4. Pressure from their company or union representatives.
  5. Their pride.
  6. Confusion or vulnerability of the situation.



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- b) Reluctant witnesses – When witnesses refuse to be interviewed, the investigators may consider the following:
1. To try to determine why and resolve the problem.
  2. To enlist the assistance of an external party (e.g. the pilot union may be asked to help convince the flight crew to be interviewed).
  3. To appeal to their concern for flight safety.
  4. To allow witnesses to be accompanied by their representatives at the interview.
  5. As a last resort, to apply legal process (to summon under their own hand the attendance of the witnesses).
- c) Uncooperative witnesses – During interviews, if witnesses do not cooperate, refuse to answer or give deliberately evasive answers, the investigators may consider the following:
1. To explain to the witnesses to make sure they understand the purpose of the interview.
  2. To appeal to their concern for flight safety.
  3. To explain that their evidence may contribute to preventing a recurrence of an accident.
  4. To concentrate on the positive, preventive side of the investigation.
  5. To determine if they would be more cooperative if they had representatives present.
  6. As a last resort, to apply legal process.
- d) Emotional or grieving witnesses – When witnesses are emotionally upset or grieving, the investigators may consider the following:
1. To be sympathetic and offer condolences (but an investigator should try not to say "I know how you feel" unless he really had a similar experience).
  2. To maintain your stature as a professional investigator with a job to do.
  3. To explain that our job as investigators is to try to prevent a recurrence.
  4. To anticipate that the witnesses will want to talk about the deceased.
  5. To avoid saying anything that may be interpreted as a negative reflection on the deceased.
  6. For the more sensitive questions, to imply that we as investigators are following standard procedures when asking such questions and that we are protecting them (the witnesses) as best as we can.



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### 13.6 Documenting the Interview

- a) The interview should be documented. This may be done in the following ways:
  1. Transcript
  2. Summary
  3. Written statement
  4. Note-to-file
  5. Hand written notes
  6. Tapes
- b) Personal data of the witnesses should be kept together with the statements. Personal data include name, age or date of birth, occupation, role in the accident/incident (e.g. pilot-in-command, cabin attendant, passenger and eyewitness), address, telephone/fax/e-mail contacts.
- c) If there is a need to get the interviewee sign an interview statement, the following phrases may be incorporated, as applicable:

“I certify that the above statement is a true account of the facts, as far as I am concerned, pertaining to the accident/incident.” or “I declare that the above statement to be a true statement.”
- d) Time may be saved for all concerned (including the interviewee) if the interviewee allows his statement to be shared with other parties which may also wish to interview him. In such a case, the following phrase may be incorporated in the interviewee's statement:

“I have no objection to a copy of this statement being passed to ... (e.g. the Coroner).”

### 13.7 Use of Tape Recorder

- a) Recording the interview on tape is highly recommended because it would enable interviewers to:
  1. Focus their attention on what is said
  2. Direct the interview and adapt and formulate questions based on what is said
  3. Perceive non-verbal signs that might contradict or reinforce what is said



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4. Notice discrepancies or sudden changes in conversation
5. Have a non-biased and accurate summary of what is said
6. Review critical elements of the interview later, if necessary

b) When using tape recording for the interview, the investigators should consider the following:

1. Carry extra batteries
2. Find a quiet place to avoid background noise
3. Test the recorder before and after the interview
4. Position the recorder close enough to all participants to avoid problems of low volume
5. Do not let the recorder's presence be too obvious
6. Ask soft-speaking witnesses to speak louder

### 14. WITNESS STATEMENTS

The following should be noted for the taking of statements:

- a) Statements should, in normal circumstances, be taken by an Investigator of Accidents. The Investigator of Accidents should write down in longhand the information given by the witness. As far as possible, the witness' own words should be used. If there is any difference of opinion regarding the form of wording to be used, the wishes of the witness must prevail.
- b) The witness should be given ample time to read over the written statement before he signs it.
- c) If the witness wishes a solicitor, advisor or friend to be present when a statement is being taken, this should normally be agreed to but it should be appreciated that this is not a right. When the presence of a third person obstructs or impedes the Investigator of Accidents in the exercise of his powers, the witness' request for the third person to be present should be refused or permission for him to be present withdrawn. The solicitor, adviser or friend should not be permitted to answer questions or to suggest answers to questions.
- d) If a third party, such as a Flight Safety Officer or other representative of the operator, wishes to be present at the interview of a witness, this should be refused unless his presence has been specifically requested as an adviser or the witness has been asked, not in the presence of the third party, whether he agrees to the person being present and he has no objection.



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- e) Witnesses should be given copies of their statements as soon as possible. Whenever practicable, copies of the originals should be left with the witnesses. (Typed copies may be sent later if necessary.)
- f) The record of each statement taken from every witness should include the following:
  - 1. The full name in block letters.
  - 2. Age (can be given as "over 18").
  - 3. Occupation.
  - 4. Normal and temporary addresses (if applicable).
  - 5. Date, time and place the statement was taken.
  - 6. Signature of the witness declaring the truth of the statement.
  - 7. Counter signature of the Investigator of Accidents taking the statement.
  - 8. When the statement is of more than one page, items (a) to (g) will appear in each page (e.g. at the bottom).
  - 9. The witness will initial all amendments, alterations or additions to the statement.

15. NOTIFICATION OF OCCURRENCES (REPORTING OF OCCURRENCES TO THE AAIG)

- a) When an accident or serious incident has occurred to a:
  - 1. Civil aircraft in Bangladesh,
  - 2. Bangladesh aircraft or aircraft operated by a Bangladesh operator outside Bangladesh, or
  - 3. Military aircraft during a civilian organized flying display in Bangladesh that is held at an aerodrome or premises other than a naval, military or air force aerodrome or premises, the relevant person shall, as soon as is reasonably practicable, notify the AAIG-BD Duty Officer by the quickest means of communication available, and in the case of an accident that has occurred in or over Bangladesh, notify a Police officer of the accident and of the place where it has occurred.
- b) The relevant person is defined as:
  - 1. The pilot-in-command of the aircraft at the time of the accident or serious incident or if he is killed or incapacitated, the operator of the aircraft;
  - 2. Where the accident or serious incident has occurred on or adjacent to an aerodrome in Bangladesh, the owner or operator of the aerodrome;
  - 3. Where the accident or serious incident has occurred in Bangladesh airspace, the air traffic services provider; or
  - 4. Where the accident or serious incident has occurred during a civilian-organized flying display in Bangladesh held outside military premises, the organizer of the flying display.





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c) The relevant person notifying the AAIG-BD shall furnish the following information as far as possible:

1. Whether the occurrence was an accident or incident
2. Manufacturer, model, nationality and registration marks, and serial number of the aircraft
3. Name of the owner, operator and hirer, if any, of the aircraft
4. Name of the pilot-in-command, and nationality of crew and passengers
5. Date and time (local time or UTC) of the accident or serious incident
6. Last point of departure and point of intended landing of the aircraft
7. Position of the aircraft with reference to some easily defined geographical point, and latitude and longitude (and elevation of the site, if available)
8. Number of persons (crew and passengers): on board, killed and seriously injured; and number of other people killed and seriously injured
9. Description of the accident or serious incident and the extent of damage to the aircraft so far as it is known as well as the extent of damage to any other properties involved
10. Physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site
11. Identification of the person sending the notice, and for an occurrence outside Bangladesh, the means by which the foreign investigator-in-charge or the foreign investigation authority concerned may be contacted
12. Presence and description of dangerous goods on board

d) Where an incident, other than a serious incident, takes place –

1. in or over Bangladesh,
2. or outside Bangladesh to a Bangladesh aircraft or an aircraft operated by a Bangladesh operator,

Note: The Investigator in Charge may, by notice in writing, require the owner, operator, pilot-in-command or hirer of the aircraft to furnish such information as in the latter's possession or control with respect to the incident.





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16. NOTIFICATION - DUTY OFFICER'S ACTION ON RECEIVING NOTIFICATION

- a) When receiving notification of an occurrence by phone, the Duty Officer may use the form in Part-D and F or Section 17 of this Part to note down the details of the occurrence and the contact numbers of the reporter of the occurrence. He shall prompt the reporter for as much information as listed in those Parts
- b) The Duty Officer should cross check the occurrence information with other agencies (e.g. airport operator, air traffic services provider).
- c) The Duty Officer should alert the AAIG-BD or the Investigator in Charge (IIC) about the occurrence.
- d) If there is reason to believe that the Civil Aviation Authority of Bangladesh (CAAB) or, when relevant, the Airport Operator has not been informed or will not be informed soon of the occurrence, the Duty Officer shall inform CAAB or Airport Operator.
- e) When instructed by the AAIG-BD or the Investigator in Charge (IIC), the Duty Officer will activate the other investigators and the Accident Investigation Command Centre (AICC). If any.
- f) The Duty Officer shall proceed to the following location unless instructed otherwise by the AAIG-BD or the Investigator in Charge.
  1. For accident within a specific Airport – that Airport Operator's Airside Operations office for transport to the accident site
  2. For accident outside the airport or in the territorial waters - Police Command Post (PCP)
- g) For accident in international waters involving Bangladesh aircraft or aircraft operated by a Bangladesh operator, the AAIG-BD Duty Officer shall proceed to the AICC, if any.

17. REPORTING OF OCCURRENCES TO THE AAIG-BD AND AAIT (SAMPLE NOTIFICATION FORM)

[Please refer to section 4 (e) – 'Template of the Notification' of Part-F (Expanded Guidance) as below:]

AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
ACCIDENT/INCIDENT NOTIFICATION

REFERENCE: CAAB/CS/32/AAIG-BD/01/MASTER

DATE:



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|  |                              |                                   |                         |   |                         |
|--|------------------------------|-----------------------------------|-------------------------|---|-------------------------|
| ACCIDENT/INCIDENT TYPE   |                              | ACCIDENT <input type="checkbox"/> |                         | SERIOUS INCIDENT <input type="checkbox"/> |                         |
| OPERATOR INFORMATION   |                              |                                   | OWNER INFORMATION       |   |                         |
| NAME   | ADDRESS                      |                                   | NAME                    | ADDRESS                                   |                         |
|  |                              |                                   |                         |   |                         |
| AIRCRAFT INFORMATION   |                              |                                   |                         |   |                         |
| MANUFACTURER   | NATIONALITY                  | MODEL                             | MSN                     | REGISTRATION NUMBER                       |                         |
|  |                              |                                   |                         |   |                         |
| ENGINE   | MANUFACTURER                 |                                   | TYPE                    | MODEL                                     |                         |
|  |                              |                                   |                         |   |                         |
| FLIGHT CREW INFORMATION  |                              |                                   |                         |   |                         |
| POSITION   | NAME                         |                                   | NATIONALITY             | LICENSE TYPE & NUMBER                     |                         |
| PILOT IN COMMAND   |                              |                                   |                         |   |                         |
| CO-PILOT   |                              |                                   |                         |   |                         |
| FLIGHT ENGINEER  |                              |                                   |                         |   |                         |
| FLIGHT NAVIGATOR   |                              |                                   |                         |   |                         |
| CABIN CREW   |                              |                                   |                         |   |                         |
| FLIGHT CREW STATUS   |                              |                                   |                         |   |                         |
| TOTAL NUMBER   | FATAL                        |                                   | SERIOUSLY INJURED       | INJURED                                   |                         |
| COCKPIT CREW   |                              |                                   |                         |   |                         |
| REMARKS:   |                              |                                   |                         |   |                         |
| CABIN CREW   |                              |                                   |                         |   |                         |
| REMARKS:   |                              |                                   |                         |   |                         |
| PASSENGER INFORMATION  |                              |                                   |                         |   |                         |
| TOTAL NUMBER   | FATAL                        |                                   | SERIOUSLY INJURED       | INJURED                                   |                         |
|  |                              |                                   |                         |   |                         |
| FLIGHT INFORMATION   |                              |                                   |                         |   |                         |
| SCHEDULE <input type="checkbox"/> NON-SCHEDULE <input type="checkbox"/> CHARTERED <input type="checkbox"/> CARGO <input type="checkbox"/> OTHER <input type="checkbox"/> |                              |                                   |                         |   |                         |
| DATE   | FLIGHT NUMBER                | TIME OF OCCURRENCE                | LAST POINT OF DEPARTURE | POINT OF INTENDED LANDING                 | POINT OF ACTUAL LANDING |
|  |                              |                                   |                         |   |                         |
| POSITION OF THE AIRCRAFT AT THE TIME OF OCCURRENCE   |                              |                                   |                         |   |                         |
| GROUND <input type="checkbox"/>  | AIR <input type="checkbox"/> | SEA <input type="checkbox"/>      | REMARKS:                |   |                         |



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|  |             |      |
|--|-------------|------|
| DESCRIPTION OF THE ACCIDENT OR THE SERIOUS INCIDENT                                |             |      |
| EXTENT OF DAMAGE SO FAR KNOWN  |             |      |
| DANGEROUS GOODS ON BOARD: YES <input type="checkbox"/> NO <input type="checkbox"/> |             |      |
| REMARKS:   |             |      |
|  |             |      |
| NAME OF THE OFFICIAL REPORTING   | DESIGNATION | DATE |
|  |             |      |

18. NOTIFICATION OF OCCURRENCES (GUIDANCE FOR THE DETERMINATION OF AIRCRAFT DAMAGE)

- a) If an engine separates from an aircraft, the event is considered an accident even if damage is confined to the engine.
- b) A loss of engine cowls (fan or core) or reverser components, which does not result in further damage to the aircraft, is not considered an accident.
- c) An occurrence where compressor, turbine blades, or other engine internal component is ejected through the engine tail pipe is not considered an accident.
- d) A collapsed or missing radome is not considered an accident, unless there is related substantial damage in other structures or systems.
- e) Any missing flap, slat and other lift augmenting device, winglet, etc., that is permitted for dispatch under the Configuration Deviation List is not considered an accident.
- f) Where any retraction of a landing gear leg, or wheels up landing, has resulted in skin abrasion only and if the aircraft can be safely dispatched after minor repairs, or patching, and subsequently undergoes more extensive work to effect a permanent repair, then the occurrence is not considered an accident.
- g) If the structural damage is such that the aircraft depressurizes, or cannot be pressurized, the occurrence is considered an accident.
- h) Any occurrence that entails the removal of any component for inspection following the occurrence, such as the precautionary removal of an undercarriage leg following a low speed runway excursion, while such removal may involve considerable work, is not considered an accident unless significant damage is found.



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- i) Any occurrence that involves an emergency evacuation is not considered an accident unless someone has sustained serious injuries, or the aircraft has sustained significant damage, as a result of the occurrence.

19. NOTIFICATION OF OCCURRENCES (NOTIFICATION OF ACCIDENT OR SERIOUS INCIDENT IN BANGLADESH TO OTHER STATES)

19.1 Bangladesh as State of Occurrence

- a) When an accident or a serious incident has occurred to a civil aircraft in Bangladesh, the Investigator in Charge shall notify as soon as possible and by the quickest means available (e.g. telephone, fax, e-mail, AFTN), the following:
1. State of Registry
  2. State of the Operator
  3. State of Design
  4. State of Manufacture
  5. ICAO (if the aircraft involved is of a maximum certified take-off mass of over 2,250 kg or is a turbojet-powered aeroplane)

19.2 Dispatch of the Notification

- a) The notification shall be in plain language and contain as much of the following details as are available:
1. The identifying abbreviation ACCID for accidents, and INCID for serious incidents
  2. Manufacturer, model, nationality and registration marks, and serial number of the aircraft
  3. Name of the owner, operator and hirer, if any, of the aircraft
  4. Qualification of the pilot-in-command, and nationality of crew and passengers
  5. Date and time (local time or UTC) of the accident or serious incident
  6. Last point of departure and point of intended landing of the aircraft
  7. Position of the aircraft with reference to some easily defined geographical point, and latitude and longitude (and elevation of the site, if available)



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8. Number of persons (crew and passengers): on board, killed and seriously injured; and number of other people killed and seriously injured
9. Description of the accident or serious incident and the extent of damage to the aircraft so far as it is known as well as the extent of damage to any other properties involved
10. An indication to what extent the investigation will be conducted or is proposed to be delegated to another Contracting State
11. Physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site
12. Means by which our investigator-in-charge can be contacted
13. Presence and description of dangerous goods on board (e.g. UN number, dangerous goods class, quantity or weight, location)
- b) The dispatch of the notification shall not be delayed just because information is incomplete. Any omitted details, as well as other known relevant information, can be forwarded to the States concerned and ICAO as soon as they become available.
- c) Section 17 shows an example of a notification based on the example in Appendix 1 to Chapter 4 of Part I of ICAO Manual of Aircraft Accident and Incident Investigation (Doc 9756).

### 1. 20. EXAMPLE AND/OR NOMENCLATURES OF A NOTIFICATION

- a) The following is an example of a notification.

| S/N | Information required per Annex 13  | Example  |
|-----|--|--|
| 1   | Classification of occurrence   | ACCID  |
| 2   | Manufacturer, model, nationality and registration marks, and serial number of the aircraft | Boeing 737-300, United Kingdom, G-AMSW, serial no. 20280 |
| 3   | Name of the owner, operator and hirer, if any, of the aircraft                             | Derby Aviation   |
| 4   | Qualification of the pilot-in-command, and nationality of crew and passengers              | ATPL issued by CAA UK, British                           |
| 5   | Date and time (local time or UTC) of the accident or serious incident                      | 7 October 1983 at 1314 hours local time                  |
| 6   | Last point of departure and point of intended  | London-Heathrow to                                       |



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|    |   |  |
|----|---|--|
|    | landing of the aircraft   | Perpignan-Riversaltes  |
| 7  | Position of the aircraft with reference to some easily defined geographical point, and latitude and longitude (and elevation of the site, if available)                         | 12 km south of Prades, 42-33 N, 02-26 W, elevation 2,200 m                   |
| 8  | Number of persons (crew and passengers): on board, killed and seriously injured; and number of other people killed and seriously injured  | 6 crew and 57 passengers aboard, all fatally injured. Other: none            |
| 9  | Description of the accident or serious incident and the extent of damage to the aircraft so far as it is known as well as the extent of damage to any other properties involved | Aircraft collided with mountainside in the xxxxx Aircraft destroyed by fire. |
| 10 | An indication to what extent the investigation will be conducted or is proposed to be delegated to another Contracting State  | Investigation by xxxx  |
| 11 | Physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site                    | Mountainous area, difficult access, perpetual snow                           |
| 12 | Means by which our investigator-in-charge can be contacted  | Contact Mr Y of xxxx at Tel/Fax/E-mail ...                                   |
| 13 | Presence and description of dangerous goods on board  | Dry ice/ UN1845/Class 9/200kg/hold 5   |

## 21. NOTIFICATION WHEN STATE OF OCCURRENCE IS NOT AWARE OF OCCURRENCE

### 21.1 Bangladesh as State of Registry or State of the Operator

- a) If the AAIG-BD/AAIT is aware of an accident or serious incident involving a Bangladesh aircraft or an aircraft operated by a Bangladesh operator and there is reason to believe that the Bangladesh of Occurrence is not aware of the accident or serious incident, the AAIG-BD/Investigator in Charge (IIC) shall notify the following States of the accident or serious incident:
1. State of Occurrence
  2. State of Design
  3. State of Manufacture
  4. State of the Operator (if Bangladesh is the State of Registry but not the State of the Operator)



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5. State of Registry (if Bangladesh is the State of the Operator but not the State of Registry)
6. ICAO (if the aircraft involved is of a maximum certificated take-off mass of over 2,250 kg or is a turbojet-powered aeroplane)

22. NOTIFICATION FOR OCCURRENCE IN A NON-CONTRACTING STATE INVOLVING A STATE AIRCRAFT

- a) For accidents or serious incidents that occurred in a non-Contracting States and if the non-Contracting State does not intend to conduct an investigation, Bangladesh as the State of Registry will conduct the investigation. The AAIG-BD/Investigator in Charge (IIC) will notify the following States of the accident or serious incident:
  1. State of Design
  2. State of Manufacture
  3. State of the Operator (if Bangladesh is not the State of the Operator)
  4. ICAO (if the aircraft involved is of a maximum certified take-off mass of over 2,250 kg or is a turbojet-powered aeroplane)
- b) Even if the non-Contracting State intends to conduct an investigation, the Investigator in Charge may also notify the States mentioned in paragraph a).

23. NOTIFICATION FOR OCCURRENCE OUTSIDE THE TERRITORY OF ANY STATE INVOLVING A BANGLADESH AIRCRAFT

- a) For accidents or serious incidents outside the territory of any State involving a Bangladesh aircraft, Bangladesh as the State of Registry will conduct the investigation. The Investigator in Charge (IIC) will notify the following States of the accident or serious incident in a similar way as described in Chapter 2 of Section 4:
  1. State of Design
  2. State of Manufacture
  3. State of the Operator (if Bangladesh is not the State of the Operator)
  4. ICAO (if the aircraft involved is of a maximum certified take-off mass of over 2,250 kg or is a turbojet-powered aeroplane)





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24. GENERAL PROCESS OF INVESTIGATION

a) Following the notification to the AAIG-BD of an accident or serious incident in Bangladesh and the AAIG-BD's notification to the other States concerned, the general process of the investigation will be as follows:

1. Appoint an investigator-in-charge and advisors
2. Secure the aircraft or the wreckage and accident site
3. Set up of an Accident Investigation Command Centre
4. Organize the investigation team
5. Carry out field (on-site) investigation
6. Coordinate with Crisis Management Team
7. Move the aircraft wreckage to another location to continue field investigation, if necessary
8. Gather factual data
9. Issue Preliminary Report (within 30 days)
10. Analyze the data gathered (e.g. formulation and proof of hypotheses)
11. Formulate/issue safety recommendations
12. Draft Final Report and seek comments from parties concerned
13. Complete Final Report
14. Release custody of aircraft, wreckage or parts thereof
15. Provide Accident/Incident Data Report to ICAO
16. Disseminate investigation reports to the parties concerned
17. Make the investigation public





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- b) The above activities are not necessarily carried out in the order listed above. Some of the activities may also be carried out in parallel. For example, safety recommendations can be made at any stage of the investigation and custody of the aircraft wreckage and the contents of the aircraft can be released as soon as they are no longer needed in the investigation.
- c) For the investigation of incidents that do not fall into the serious incident category, the AAIG-BD will follow the same general process of investigation as for the investigation of accidents or serious incidents.
- d) For an incident or serious incident in Bangladesh, some of the above investigation activities may not be applicable (e.g. securing of wreckage).

### 25. APPOINTMENT OF INVESTIGATOR-IN-CHARGE AND ADVISERS

- a) The AAIG-BD will designate an investigator-in-charge (IIC) by forming an AAIT. Sometimes the Head of AAIG-BD or any of his panel member may be the Investigator in Charge (IIC) of the investigation.
- b) Where the Head of AAIG-BD is of the view that more than one Investigator of Accidents is needed to carry out an investigation, he may designate one or more Investigators of Accidents to assist the IIC. One of these Investigators of Accidents will be designated as the Deputy IIC or Member Secretary.
- c) The Head of AAIG-BD may also appoint suitable persons as advisors to assist the IIC. When appointing the advisers, the Investigator in Charge (IIC) will specify in the letters of appointment the extent of the advisers' participation.
- d) If the IIC needs more investigation manpower in terms of Investigator of Accidents or advisers, he may propose to the Head of AAIG-BD to consider the necessary appointment.

### 26. POWERS OF ACCIDENT INVESTIGATORS

- a) The Investigator-in-charge (IIC) and his Team of Investigators of Accidents designated to assist the IIC shall have the following access rights and powers where the whole or any part of the investigation is carried out in Bangladesh:
  - 1. To have free and unhampered access to the site of the accident or incident as well as to the aircraft, its contents or its wreckage.



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2. To have immediate and unrestricted access to and use of the contents of the flight recorders, ATS records and any other recordings.
3. To 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.
4. To 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.
5. To 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.
6. To, by summons under his hand:
  - a. call before him and examine any person as he thinks fit;
  - b. require such person to answer any question or furnish any information or produce any books, papers, documents and articles which he may consider relevant; and
  - c. make copies of and retain any such books, papers, documents and articles until the completion of the investigation.
7. To take statements from all such persons as he thinks fit and require any such person to make and sign a declaration of the truth of the statement made by him.
8. To enter and inspect any place, building or aircraft the entry or inspection whereof appears to him to be necessary for the purposes of the investigation. (The IIC, etc., shall produce their credentials, if required.)
9. To remove, test, take measures for the preservation of or otherwise deal with any aircraft other than an aircraft involved in the accident or incident where it appears to him to be necessary for the purposes of the investigation. (The IIC, etc., shall produce their credentials, if required).
10. To take possession of, examine, remove, test or take measures for the preservation of any object or evidence as he considers necessary for the purposes of the investigation.
11. To require an immediate listing of evidence and removal of debris or components for examination or analysis purposes.
12. To require the readout of the flight recorders.



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13. To require, in the case of a fatal accident, a complete autopsy examination of fatally injured flight crew, and, when necessary, passengers and cabin crew by a pathologist (if available, by a pathologist experienced in the investigation of aircraft accidents).
14. To require, where appropriate, the medical and toxicological examination of the crew, passengers and aviation personnel involved in the accident or incident by a medical practitioner (if available, by a medical practitioner experienced in the investigation of aircraft accidents).
15. To require the crew, passengers and aviation personnel involved in the accident or incident to undergo such other tests (including a breathalyser test) as are considered necessary for the purposes of the investigation.
16. To seek such advice or assistance as is considered necessary for the purposes of the investigation.

- b) Any advisor appointed by the Head of AAIG-BD to assist the IIC shall have the access rights and powers as specified in paragraph a) above, but only to the extent specified by the AAIG-BD.
- c) Investigation by the AAIT for the purposes of fulfilling Bangladesh's obligation under Annex 13 to the Chicago Convention does not preclude other competent authorities in Bangladesh (e.g. Civil Aviation Authority, State Police, State Coroner, judicial authorities) from carrying out their own investigations separately for their own purposes as required and in accordance with the relevant legislation. Thus, the IIC shall bear in mind the need for coordination with the other investigating authorities. Particular attention shall be given to evidence which requires prompt recording and analysis for the investigation to be successful, such as the examination and identification of victims and read-out of flight recorder recordings.

### 27. ORGANISATION OF AN INVESTIGATION TEAM

- a) Every investigation conducted by Bangladesh will have an investigator-in-charge (IIC) designated by the Head of AAIG-BD.
- b) Where there are other Investigators of Accidents assisting the AAIG-BD, one of them will be designated by the Investigator in Charge (IIC) as the Deputy IIC or Member Secretary.
- c) The investigation will involve personnel from many parties, including but not limited to the following:
  1. Airlines involved in the accident or serious incident.
  2. Engineering agent of the airline concerned.
  3. Security agent of the airline concerned, if necessary.



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4. Advisers appointed by the Investigator in Charge (IIC). They can come from CAA, Police, Military, Health Organization, Civil Defence Force, Universities, Research Institutions, Air Operators, Maintenance and Repair Overhaul Companies, and other aerospace organisations. The roles of some of these agencies are described in Chapter 5.
5. Accredited representatives from the State of Registry, State of the Operator, State of Design and State of Manufacture\*.

Note: If neither the State of Registry nor the State of the Operator appoints an accredited representative to participate in the investigation, the operator should be invited to participate. Similarly, if neither the State of Design nor the State of Manufacture appoints an accredited representative to participate in the investigation, the organisations responsible for the type design and the final assembly of the aircraft should be invited to participate.

6. Accredited representatives from States that have provided information, facilities or experts at our request\*.
  7. Advisors to the accredited representatives\*, who can comprise people from various organisations, such as aircraft manufacturer, powerplant and aerospace equipment manufacturers, ATC equipment manufacturers.
  8. Experts from States that have suffered fatalities or serious injuries to their citizens\*.
- d) Participation in the investigation is on the basis of the participants' technical qualifications and specialties and their ability to contribute to the success of the technical investigation. The investigation shall exclude members of the news media, attorneys, insurers, Next of Kins (NOKs), and persons representing claimants.
- e) The number of participants in an investigation can be very big, especially for a major accident. Such a big group of participants naturally need to be properly organized to ensure a smooth and effective investigation. Typically these participants are divided into the following investigation groups:
1. Structure group (progression of structural failure, site survey/mapping, impact marks, recovery of wreckage, removal of wreckage/debris, etc.)
  2. Systems group (various aircraft systems, including powerplant)
  3. Maintenance Records group (maintenance logs, abnormal operation reports, life/cycle information of the parts and components)
  4. Flight Operations group (flight/cabin crews, history of flight, aircraft performance, pre-flight preparation, flight environment, dangerous goods, etc.)
  5. Recorders group (read-out and transcription of CVR/FDR data)

Note: Consideration should be given to the participation of a representative from the State of Manufacture or the State of Design who can advise on airworthiness aspects and of a representative from the State of the Operator who can advise on flight operations aspects.



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6. Air Traffic Services group (ATC operations, ATC records/tapes, radar data, navigational aids, communications, weather, etc.)
  7. Aerodrome group (airport operations and maintenance)
  8. Witness group (interviewing)
  9. Airport group (airport physical features, obstacle information, ground facilities, apron operations)
  10. Human Factors group (human physical and psychological conditions, fatigue, environmental factors, medical and pathological factors, organisational and management factors, etc.)
  11. Survival factors group (rescue, firefighting, crashworthiness, emergency egress system, cabin safety, etc.)
- f) The actual grouping will depend on the nature and complexity of the investigation. Some of the groups may not necessarily be formed (at least not necessarily in the initial phase of the investigation) and some of the groups can be further split into more specific groups.
- g) Each group will usually be led by an AAIT investigator designated by the IIC.
- h) In addition, there will be an AAIT Secretariat/Support group to set up the Accident Investigation Command Centre and to take care of such matters as notification, facilitation, logistics and public relations.
- i) The IIC shall bear in mind the participation entitlement of the accredited representatives and their advisers, and of the experts of the States having suffered fatalities or serious injuries to their citizens.
1. The accredited representatives are entitled to participate in all aspects of the investigation, under the control of the IIC, 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 readouts 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, contributing factors and safety recommendations
    - i. Make submissions in respect of the various elements of the investigation



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2. The advisers assisting the accredited representative shall be permitted, under the accredited representatives' supervision, to participate in the investigation to the extent necessary to enable the accredited representatives to make his participation effective.
3. However, participation of accredited representatives and advisers from States other than the State of Registry, the State of the Operator, the State of Design and the State of Manufacture may be limited to those matters which entitled such States to participation.
4. The experts appointed by the States which have suffered fatalities or serious injuries to their citizens are entitled to:
  - a. Visit the scene of the accident
  - b. Have access to the relevant factual information, which is approved for public release by the State conducting the investigation, and information on the progress of the investigation
  - c. Receive a copy of the Final Report

Such State will not be precluded from also assisting in the identification of victims and in meetings with survivors from that State.

## 28. ROLES OF THE VARIOUS LOCAL SUPPORTING ORGANISATIONS

A number of local organisations will be involved in supporting the AAIT investigation of an accident that occurs in Bangladesh. The actions required of these supporting organisations are as follows:

### 28.1 Actions by the Airline Concerned

- a) The airline concerned shall, upon being informed of the accident, carry out the following:
  1. To send an engineer to remove the CVR/FDR/QAR as soon as possible.
  2. To send flight crew members to undergo medical examinations at the Bangladesh General Hospital accompanied by an accident investigator and a Police officer.
  3. To send flight crew members for interview at the AICC by accident investigators immediately after their medical examinations.
  4. To identify and gather survivors for interview by the accident investigators.

Notes: a. Location for the interview shall be arranged with the investigator-in-charge (IIC).





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- b. Foreigners who have to leave Bangladesh soon should be arranged to be interviewed first. If necessary, the details of the survivors could be noted so that they could be contacted for interview later.

5. To dispatch a senior representative to liaise with the IIC on the following;
  - a. Assistance in the removal and weighing, if necessary, of cargo/baggage from the accident aircraft.
  - b. Provisions of diagrams of the location of the CVR/FDR/QAR on the aircraft (for aircraft crash at sea).
  - c. Sea salvage of the wreckage (for aircraft crash at sea).
  - d. Assistance in impounding documents on board the aircraft and maintenance records.
  - e. Assistance in technical investigation and in other engineering expertise.

### 28.2 Actions by the Engineering Agent of the Airline Concerned

- a) The engineering agent of the airline concerned shall, upon being informed of the accident, carry out the following:
  1. To send an engineer to remove the CVR/FDR/QAR as soon as possible.
  2. To dispatch a senior representative to liaise with the IIC on the following;
    - a. Removal of the CVR/FDR/QAR.
    - b. Assistance in impounding maintenance records.
    - c. Assistance in technical investigation and in other engineering expertise (e.g. rendering pressure vessels safe, taking POL samples, defueling aircraft).

### 28.3 Actions by the Police

- a) Assistance of the Police will be required in the following areas:
  1. To provide cordon for the entire accident site and protect the wreckage and its contents from disturbance, loss or further damage.
  2. To photograph the dead before they are removed from the scene.
  3. To provide information on witnesses and their statements.
  4. To assist in identifying and locating witnesses who have seen or have taken photographs of the accident (through the mass media, if necessary).
  5. To provide Police escort as required (e.g. for escorting flight crew members to the Bangladesh General Hospital for medical examinations, for escorting accident investigators to impound documents, etc., where necessary).



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6. To provide manpower to comb accident site for missing parts, if necessary (depending on the terrain and vegetation of the accident site, one person for every 2 to 3 meters may be required).

28.4 Actions by Bangladesh Air Force (BAF)

BAF's assistance may be sought for the aerial survey/photography of the accident site.

28.5 Actions by Relevant Airport Group's Airport Emergency Service (AES)

a) AES shall carry out the following:

1. To ensure minimum movement of the dead, wreckage or debris in the course of their rescue and firefighting operations and before photographic records have been made.
2. To provide post-crash fire protection (for crash within AES turn-out areas).
3. To provide sea transport for investigators to the site of the aircraft ditching if necessary (for aircraft crash at sea)
4. To liaise with the IIC on the following:
  - a. Assistance in identifying survivors, witnesses and AES personnel for interview.
  - b. Provision of manpower to comb accident site for missing parts, if necessary (depending on the terrain and vegetation of the accident site, one person for every 2 to 3 meters may be required).

28.6 Actions by CAAB Air Traffic Services Division

a) CAAB Air Traffic Services Division shall carry out the following:

1. To provide information on condition of radio, navigation and visual aids and ATC facilities at the time of the accident.
2. To assist IIC in impounding ATC tapes, flight plans, strips, meteorological forecast provided to flight crew, etc.
3. To liaise with the IIC on toxicological and drug testing at the Bangladesh General Hospital and interview of air traffic controllers involved, where necessary.

28.7 Actions by the Relevant Airport Group's Airside Operations

Airside Operations shall provide transport for use by the accident investigators.





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28.8 Actions by Bangladesh Civil Defence Force (BCDF)

a) BCDF's assistance may be sought in the following areas:

1. To ensure minimum movement of the dead, wreckage or debris in the course of their rescue and firefighting operations and before photographic records have been made.
2. To provide post-crash fire protection (for crash outside AES turn-out areas).
3. To identify survivors, witnesses and BCDF personnel for interview.

28.9 Actions by Ministry of Health (MOH)

a) The MOH shall carry out the following:

1. To perform medical, toxicological and drug tests on all flight crew members presented to the Bangladesh General Hospital for medical examinations and to provide results to the IIC. (And to arrange for the flight crew members to be sent to the IIC for interview immediately after the medical examinations.)
2. To perform toxicological and drug tests on air traffic controllers presented to the Bangladesh General Hospital for medical examinations and to provide results to the IIC.
3. To provide results of autopsies of deceased flight crew members to the IIC.
4. To provide, upon request, results of autopsies of dead persons on board the accident aircraft to the IIC

29. ACTIONS AT THE ACCIDENT INVESTIGATION COMMAND CENTRE

29.1 Accident in Bangladesh

- a) In the event of an accident in Bangladesh, and as directed by the Investigator in Charge (IIC) or the investigator-in-charge, an Accident Investigation Command Centre (AICC) will be set up at the AAIT office.
- b) The AICC will provide support to the investigator-in-charge (IIC).
- c) The AICC has the following telephone and facsimile numbers:

Tel: [Insert Number] or, If the AICC is not set up (Please contact AAIG-BD)  
Fax: [Insert Number] or, If the AICC is not set up (Please contact AAIG-BD)



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d) The following rooms will be needed:

1. The AAIT Meeting Room will be used for meetings of the investigation teams. It will also double up as the AICC Operations Room.
2. Two syndicate rooms can be used by the accredited representatives and their advisers.

29.2 Tasks of the Accident Investigation Command Centre (AICC)

a) The AICC shall keep an event log and will carry out the following:

1. To recall the other AAIT investigators.
2. To arrange for the security of the AICC, where necessary.
3. To compose and send notifications to the relevant States.
4. To coordinates with these States on the participation and arrivals of their accredited representatives and advisors.
5. To maintain a register of participants (sample registration form in Section 29).
6. To issue AAIT's guidelines on participation in AAIT investigation for non-AAIT participants and require these participants to acknowledge receipt.
7. To arrange for the participants to sign a Non-Disclosure Agreement
8. To issue AAIT identification badges to participants, where applicable, and require them to acknowledge receipt, and to collect the badges from them at the end of the field investigation.
9. To request for external assistance, as necessary.
10. To assist in making travel arrangement for the AAIT investigators.
11. To keep record of investigation expenses.

b) The AICC will monitor the following:

1. Casualty information
2. Media reports (printed material as well as television)

c) The AICC will act as secretary of the investigation team's progress meetings and handle the following tasks:

1. To keeps records of the attendance of the meetings.
2. To keep minutes of the meetings.
3. To prepare for the IIC any necessary information, updates, etc., to the Chairman CAAB.
4. To liaise with the investigation cell of the Crisis Management Directorate (CMD) and prepare any necessary updates for the CMD.
5. To draft any necessary press release.



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- d) The AICC will carry out the following in coordination with the relevant investigation sub-groups:
1. To help arrange for aerial photography of accident site, if necessary.
  2. To help arrange for underwater photography of perishable evidence prior to recovery of wreckage.
  3. To help arrange for video recording of wreckage removal or recovery.
  4. To help arrange for a site to place the wreckage.
  5. To record the date/time of the receipt of all documents/items submitted to the investigation team as evidence.
- e) The AICC will provide other facilities and logistics support, etc., as necessary.

30. SAMPLE REGISTRATION FORM FOR NON-AAIT PARTICIPANTS/REGISTRATION FORM FOR INVESTIGATION TEAM MEMBER

Accident/Incident occurrence: \_\_\_\_\_  
Investigation group (if known): \_\_\_\_\_

|   |  |
|---|--|
| Name  |  |
| NID/Passport No.  | Date of birth  |
| Home address  |  |
| Organization  | Job Title  |
|   | Office Address   |
|   | Tell (Office):   |
|   | Tell (Mobile) :  |
|   | Fax:   |
|   | E-mail:  |
| Hotel in Bangladesh                                     |  |
| How can you be contacted in Bangladesh or while on site |  |
| Immunization against (please ):                         | Person to contact in case of emergency<br>Relation to you<br>Contact no. |
| Hepatitis A ____ Influenza ____                         |  |
| Hepatitis B ____ Tetanus ____                           |  |
| Others (Please specify) _____                           |  |

Signature: \_\_\_\_\_



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### 31. SITE SECURITY

- a) As indicated in Chapter 5, the Police will provide cordon for the entire accident site and protect the wreckage and its contents from disturbance, loss or further damage. For this purpose, the Police will set up a central control point to control entry into the accident site.
- b) Nevertheless, the investigator-in-charge (IIC) or the investigator assigned by the IIC to coordinate on site security matters should bear in mind the following:
  1. To monitor the effectiveness of the following security measures and to highlight any deficiency to the Police:
    - a. Protection of property
    - b. Minimizing disturbance to wreckage
    - c. Protection and preservation of tracks and impact marks made by the aircraft
    - d. Preventing unauthorized entry
  2. To consider the size of the restricted area and liaise with Police accordingly.
  3. To obtain the cargo manifest as soon as possible in order that the condition of the hazardous material on site can be ascertained.
  4. To brief the investigation participants on the security measures and the condition of the hazardous material on site.
  5. To arrange for security for the location where wreckage is stored.

### 32. FIELD INVESTIGATION

#### 32.1 Investigation Procedures

- a) Section 33-43 of this Part provide details on the investigation procedure for different types of occurrence as follows:
  1. Investigation procedure for commercial transport aircraft accident or serious incident
  2. Investigation procedure for commercial transport aircraft incident
  3. Investigation procedure for general aviation aircraft accident or serious incident
  4. Investigation procedure for general aviation aircraft incident
  5. Investigation procedure for air traffic services related serious incident
  6. Investigation procedure for air traffic services related incident



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- b) AAIT investigators involved should keep a log of their investigation activities and highlight significant discoveries to the investigator-in-charge (IIC).
- c) All involved in the investigation shall be mindful of the need to capture as soon as possible evidence of a perishable nature. Damaged documents (e.g. soaked or burnt) may need special handling.

### 32.2 Documentation

- a) When impounding recorders and documents, etc., records should be made. A copy of the records should be given to the persons providing the recorders and documents, etc. This is to facilitate the eventual return of these recorders and documents, etc., to the original provider of the same.
- b) Taking a photograph of the nameplate of a part or component is a quick way of recording details such as part number, serial number, etc.
- c) All recorders and documents impounded shall be kept in a secured place.
- d) Where appropriate, the investigators should return the documents after photocopies are made.
- e) At the end of the field investigation phase, the investigation groups, if formed, are expected to compile their factual data reports or field notes, provide a summary of their findings, sign on the reports/notes and submit them to the IIC. They may have to present a summary of their reports or field notes at an investigation progress meeting before the groups are disbanded.

### 32.3 De-Commissioning of Investigation Team

When an investigation Team, if formed, has completed its tasks, the AAIG-BD should for the record recommend to the IIC the de-commissioning of the Team. The IIC will then de-commission the Team. The de-commission may be announced during the investigation debrief meeting or through an e-mail to the AAIG-BD.

## 33. INVESTIGATION PROCEDURE FOR COMMERCIAL TRANSPORT AIRCRAFT ACCIDENT OR SERIOUS INCIDENT

This procedure is applicable to the investigation of a commercial transport aircraft accident or serious incident. For such occurrence, 3-4 investigators (engineering, operations and recorder) would normally be deployed (but if the accident is a major one, then ALL investigators would be deployed). When necessary, external assistance will be sought.



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33.1 Actions on Receipt of Notification

a) AAIT Duty Officer (DO) to:

1. Inform the Investigator in Charge (IIC) (CI) and activate other investigators
2. Proceed to the occurrence site or the aircraft as soon as possible with the DO kit bag
3. Gather as much information about the accident as possible
4. Confirm with ATS that ATC recordings and other relevant material are impounded
5. Arrange for ATC personnel involved to undergo medical examinations
6. Arrange to impound all maintenance records

b) AAIG-BD to appoint investigator-in-charge (IIC) and advisers

c) AAIG-BD or IIC may direct that the Accident Investigation Command Centre (AICC) be set up

33.2 Actions of the Duty Officer on Site:

a) The DO shall assume the responsibility of the IIC until the arrival of the IIC. He should carry out the following (with the help of other investigators who have turned up) pending the arrival of the IIC:

1. Identify himself to the Police, and assist the Police officer-in-charge in ensuring that the occurrence site or the aircraft is properly secured
2. Identify himself to the rescue force commander (who will be from the aerodrome authority if the occurrence site is at the airport, or who will be from SCDF if the site is outside the airport) and provide advice to him as necessary (e.g. to advise on preservation of evidence for investigation purposes)
3. Arrange for the removal of power from the CVR/FDR/QAR as soon as possible
4. Retrieve and impound the CVR/FDR/QAR at first opportunity
5. Provide the AICC with the necessary information (see Section 4 Chapter 2) to enable it to issue notification to the relevant States
6. Make a preliminary survey of the site and note the wreckage condition and debris distribution
7. Coordinate with the rescue force commander and other on-site personnel to identify hazardous areas, have them marked, and implement any necessary accident site hazards control measures
8. Take steps to preserve, through photography or other means, any evidence of a transitory nature (e.g. before it is washed away by rain water) or which might be removed, effaced, lost or destroyed



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- b) The DO will brief the IIC when the latter arrives on site. The IIC will take over the tasks in paragraph a).

### 33.3 Action by the Investigator-in-Charge (IIC)

- a) Walk through the site and obtain a briefing by the rescue force commander
- b) Assign an investigator to obtain statements from the flight crew members, to accompany them for their medical examinations (with a Police escort if necessary) and to interview them, if possible
- c) Assign an investigator to obtain statements from cabin crew members and other witnesses, and to arrange for interviews, if necessary
- d) Gather the names and contacts of witnesses for future communications
- e) Assign an AAIT staff to set up a field HQ if necessary
- f) Remind all investigation personnel of the possible safety hazards on site
- g) Decide on the investigation groups that need to be formed and assign investigators as group chairmen to set up the investigation groups
- h) Organize the on-site tasks (taking measurements of marks, tracks, etc.)
- i) Carry out the necessary briefing (e.g. regarding arrangements on coordination with other parties concerned, manpower, and equipment needed)
- j) Manage the investigation Team
- k) Conduct regular briefing and debriefing with the investigators involved
- l) Update the AICC/AAIG-BD

### 33.4 Coordination with Security Agency

Confirm with the Police regarding the wreckage security arrangement, provision of Police escort, information on witnesses, and accident site photography

### 33.5 Coordination with Rescue Agency

- a) Perform, or assign a person to perform, accident site risk management
- b) Confirm with the rescue force commander on the hazardous areas and their marking

### 33.6 Coordination with Foreign Investigators

- a) Liaise with the Accredited Representatives
- b) Convene opening meeting and conduct the necessary briefing (e.g. on transport, logistics and administrative arrangements) after Accredited Representatives and their advisers have arrived
- c) Assign the foreign participants to the investigation Team





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33.7 Coordination with Owner/Operator of Aircraft

- a) Liaise with senior representative of the owner or operator of the aircraft concerned on the following, directly or through the investigation groups:
  - 1. Remove CVR/FDR/QAR, if not already done
  - 2. Obtain flight crew's particulars
  - 3. Obtain copies of flight crew's licences, log books and general declaration
  - 4. Obtain copies of all documents on board the aircraft (e.g. certificate of registration, certificate of airworthiness, flight manual, operations manual, technical log, deferred defect log, load sheet, weight and balance schedule, fuel log)
  - 5. Obtain passenger and cargo manifests (to note any dangerous goods)
  - 6. Arrange for medical examinations and interviewing of the flight crew
  - 7. Arrange for recovery of aircraft wreckage from the sea (if judged necessary), in the case of a sea crash
  - 8. Arrange to move the wreckage to another location for storage or continuing examination, if necessary

33.8 Actions of the Accident Investigation Command Centre (AICC)

- a) Compose and send notifications by the quickest means to the relevant States and request for nomination of Accredited representatives
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State of Manufacturer
  - 4. State of Design
  - 5. ICAO
- b) Coordinate with the Accredited Representatives on their arrival details
- c) Alert all the AAIT volunteer investigators
- d) Arrange for the security of the AICC, where necessary
- e) Liaise with the Rescue Coordination Centre in the case of a sea crash
- f) Maintain a register of participants
- g) Assist in making accommodation and transport arrangements for the foreign participants
- h) Issue AAIT's guidelines for foreign participants and require these participants to acknowledge receipt
- i) Arrange for all non-AAIT participants to sign a Non-Disclosure Agreement as necessary
- j) Issue credentials to non-AAIT participants





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- k) Coordinate with the AAIG-BD and crisis management center on regular and timely release of information to NOK and media and on facilitating NOK to visit the accident site, if needed
- l) Request for external assistance, as necessary
- m) Activate sea salvage company (e.g. SMIT), if necessary

33.9 The AICC will monitor the following:

- a) Casualty information
- b) Media reports (to make copy of printed reports and to record TV news)

33.10 The AICC will Provide Secretariat Service to the Investigation Team and Handle the Following:

- a) Take minutes of the investigation meetings and keep records of the attendance
- b) Prepare for the AAIG-BD any necessary information, updates, etc., to Chairman.
- c) Liaise with the AAIG-BD and Crisis Management Directorate (CMD) and prepare any necessary updates for the CMD
- d) Draft any necessary press release

33.11 The AICC will Carry Out the Following in Coordination with the Relevant Investigation Team and AAIG-BD:

- a) Arrange for aerial photography of accident site, if necessary
- b) Arrange for underwater photography prior to recovery of wreckage
- c) Arrange for video recording of wreckage removal or recovery
- d) Arrange for wreckage storage and transporting of wreckage to storage site
- e) Maintain log of receipt of all documents/items received by the investigation team as evidence
- f) Maintain log of activities and events
- g) Recall an aero medically trained investigator to liaise with the coroner for autopsy reports

33.12 The AICC will provide other facilities and logistics support, as necessary

Replenish consumables such as PPE kits, batteries, sample bottles, etc., and any requirements as advised by the AAIT.

33.13 Actions of Accident Investigation Team (AAIT)

- a) Document damages
- b) Document positions and conditions of control surfaces, conditions of wings, fuselage, etc.



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- c) Identify and record/photograph/videotape wreckage pieces and important evidence (e.g. material failures, ground tracks made before the impact, fire/explosion marks)
- d) Take measurements and note locations of marks, tracks, etc.
- e) Arrange with the AICC for survey (including aerial survey) of the site and map out the wreckage distribution
- f) Initiate preparation for wreckage recovery (for a sea crash)

33.14 Recorder Investigators of the AAIT

- a) Inspect and record/photograph/videotape the conditions of the recorders when they are found
- b) Rinse and immerse recorders in fresh water if they are recovered from the water
- c) Transport the recorders to the recorder laboratory
- d) Inspect and document in detail the conditions of recorders
- e) Read out the recorders as soon as possible
- f) Arrange for the recorders to be read out by the recorder laboratory of an appropriate overseas investigation agency if the reading out is beyond the capability of the AAIT

33.15 Flight operations Investigators of AAIT:

- a) Obtain crew particulars, and impound licenses, log books and general declaration, if not already done
- b) Impound all documents on board the aircraft, including certificate of registration, certificate of airworthiness, flight manual, operations manual, MEL/CDL, Jeppesen charts, technical log, bug card, load sheet, passenger and cargo manifests, notice to commander on dangerous goods, NOTAMs, etc., including scraps of paper.
- c) Examine and record/photograph/videotape the settings, readings and positions of control levers, instruments, switches, circuit breakers, indicators, flight/ engine controls, etc., in the cockpit
- d) Interview flight crew members, survivors and witnesses as necessary
- e) Obtain operator's crew scheduling and crew training records

33.16 Power-plant Investigators of AAIT

- a) Examine and record/photograph/videotape the positions and conditions of engines and components, including positions of engine controls, pushrods, cranks, thrust reversers, etc.
- b) Examine and record/photograph/videotape the positions and conditions of engine controls, circuit breakers, switches, etc., in the cockpit.
- c) Collect POL (fuel, oil and hydraulic fluids) samples from the engines
- d) Remove and examine POL filters and magnetic chip detectors
- e) Review engine maintenance records



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- f) Arrange for shop inspection of engine and engine functional checks, where necessary
- g) Arrange for teardown of engine, if necessary

33.17 Systems Investigators of AAIT

- a) Arrange for pressure vessels (oxygen bottles, hydraulic accumulators, etc.), oleos, tyres and dangerous goods to be rendered safe after noting their conditions (e.g. pressure readings)
- b) Examine and record/photograph/videotape the positions and conditions of the various aircraft systems, including positions of switches, circuit breakers, rods, joints, hinges, actuators, wirings, control surfaces, etc.
- c) Examine and record/photograph/videotape fire marks and perishable evidence
- d) Collect POL (fuel, oil, hydraulic fluids) samples from the aircraft or wreckage and also from the handling agent's facilities.
- e) Obtain the relevant aircraft systems manuals for reference

33.18 Maintenance Rerecords Investigators of AAIT

- a) Obtain aircraft maintenance records, including maintenance packages, technical log, deferred defect log, MEL, configuration deviation log, aircraft/ engine modification log books, etc.
- b) Obtain relevant maintenance manuals
- c) Interview maintenance personnel, if necessary
- d) Review aircraft maintenance records

33.19 Air Traffic Services Investigators of AAIT

- a) Arrange for interview of the air traffic controllers involved
- b) Impound ATC communications tapes, radar recordings, etc.
- c) Arrange to listen to the ATC recordings and obtain transcription of the recordings
- d) Impound operations log and maintenance records of navigational aids, etc., if necessary
- e) Arrange for flight checking of navigational aids, if necessary
- f) Obtain NOTAMs, meteorological records, etc.
- g) Obtain copies of the licenses and roster of the air traffic controllers involved



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33.20 Survival Factors Assessing Investigators of AAIT

- a) Impound cabin safety related operations log, manuals and documents
- b) Inspect and record/photograph/videotape the conditions of the aircraft for crashworthiness investigation (e.g. fuselage structure, emergency egress doors, seats and seat belts, overhead compartments, emergency lighting system)
- c) Examine and record/photograph/videotape the conditions and use of emergency equipment (e.g. oxygen masks, emergency exits)
- d) Gather information on the interaction between flight and cabin crews and among cabin crew members
- e) Obtain the seating plan and injury records of the passengers
- f) Interview firefighters, crew members, passengers, survivors, witnesses, etc.

33.21 Analysis and Report Writing Investigators of AAIT or AAIG-BD, as Applicable

- a) Issue safety recommendations to the relevant organizations, if there are immediate safety concerns
- b) For an accident, prepare and issue Preliminary Report within 30 days
- c) Analyze data gathered (e.g. formulation and proof of hypotheses)
- d) Formulate/issue safety recommendations
- e) Coordinate with the Accredited Representatives to draft the Final Report
- f) Invite comments on the draft Final Report, allowing a 60 days comment period:
  - 1. State that instituted the investigation
  - 2. State of Registry
  - 3. State of the Operator
  - 4. State of Manufacturer
  - 5. State of Design
  - 6. States that participated in the investigation
- g) Issue an interim report on the progress of the investigation if the Final Report cannot be released within 12 months
- h) Complete the Final Report
- i) Disseminate Final Report to the States and organizations involved:
  - 1. State that instituted the investigation
  - 2. State of Registry
  - 3. State of the Operator
  - 4. State of Manufacturer
  - 5. State of Design
  - 6. States that participated in the investigation
  - 7. States that provided relevant information, significant facilities or experts
  - 8. States that suffered fatalities or serious injuries to its citizen



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9. ICAO, if the maximum certificated take-off mass of the aircraft is above 5,700 kg

- j) Make public the Final Report
- k) For an accident, send Accident Data Report to ICAO if the maximum certificated take-off mass of the aircraft is above 2,250 kg
- l) For a serious incident, send Incident Data Report to ICAO if the maximum certificated take-off mass of the aircraft is above 5,700 kg.

### 34. INVESTIGATION PROCEDURE FOR COMMERCIAL TRANSPORT AIRCRAFT INCIDENT

This procedure is applicable to the investigation of a commercial transport aircraft incident (non air traffic services related), other than a serious incident, when the Investigator in Charge (IIC) (CI) has become aware of it and has caused an investigation to be carried by an investigator-in-charge (IIC). For such occurrence, 2 investigators (engineering, operations) would normally be deployed.

#### 34.1 Actions to be Taken by IIC

- a) Proceed to the aircraft as soon as possible with the DO kit bag
- b) Gather as much information about the incident as possible
- c) Decide, basing on information gathered, if ATC recordings and other relevant material need impounding and if ATC personnel involved need to undergo medical examinations
- d) Arrange to impound all maintenance records
- e) Arrange for removal of power from the CVR/FDR/QAR, if installed, as soon as possible
- f) Retrieve and impound the CVR/FDR/QAR at first opportunity
- g) Take steps to preserve, through photography or other means, any evidence of a transitory nature (e.g. before it is washed away by rain water) or which might be removed, effaced, lost or destroyed
- h) Interview or obtain statements from the flight crew members
- i) Obtain flight crew's particulars and copies of their licences and log books
- j) Interview or obtain statements from cabin crew members, if necessary
- k) Interview or obtain statements from witnesses
- l) Obtain the names and contacts of other witnesses for future communications
- m) Obtain copies of all documents on board the aircraft (e.g. certificate of registration, certificate of airworthiness, flight manual, operations manual, technical log, deferred defect log, load sheet, weight and balance schedule, fuel log)
- n) Obtain passenger and cargo manifests (to note any dangerous goods)



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o) Notify, if necessary, the States concerned of the incident and request for nomination of Accredited Representatives

1. State of Registry
2. State of the Operator
3. State of Manufacturer
4. State of Design

p) Liaise with respective Accredited Representatives accordingly

Note: The investigation would focus on areas that are relevant, which depends on the nature of the incident.

34.2 Action by the Aircraft Structure, Systems and Power-plant Investigators of the AAIT

- a) Examine and record/photograph/videotape the conditions of the aircraft structure and systems involved
- b) Examine and record/photograph/videotape the settings, readings and positions of control levers, instruments, circuit breakers, switches, indicators, flight/ engine controls, etc., in the cockpit
- c) Identify and record/photograph/videotape important evidence (e.g. material failures, ground tracks, switch positions, etc.)
- d) Take measurement and note locations of marks, tracks, etc.
- e) Collect POL (fuel, oil, hydraulic fluids) samples from the incident aircraft
- f) Interview maintenance personnel, if necessary
- g) Obtain the relevant aircraft systems and engine manuals for reference
- h) Obtain and review aircraft and engine maintenance records
- i) Arrange for testing of aircraft and engine component, if necessary
- j) Arrange for metallurgical examination, if necessary

34.3 Flight Operations Investigators of the AAIT

- a) Interview flight crew members and witnesses as necessary
- b) Obtain crew scheduling and training records
- c) Read out CVR/FDR

34.4 Analysis and Report Writing Investigators of AAIT

- a) Issue safety recommendations to the relevant organizations, if there are immediate safety concerns
- b) Analyze data gathered (e.g. formulation and proof of hypotheses)





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- c) Formulate/issue safety recommendations
- d) Coordinate with respective Accredited Representatives to draft Final Report
- e) Invite comments on the draft Final Report, allowing a 60 days comment period:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State of Manufacturer
  - 4. State of Design
  - 5. States that participated in the investigation
- f) Issue an interim statement on the progress of the investigation if the Final Report cannot be released within 12 months
- g) Complete the Final Report
- h) Disseminate Final Report to the States and organisations involved:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State of Manufacturer
  - 4. State of Design
  - 5. States that participated in the investigation
  - 6. State that provide relevant information, significant facilities or experts
  - 7. ICAO if the maximum certificated take-off mass of the aircraft is above 5,700 kg
- i) Make public the Final Report
- j) Send Incident Data Report to ICAO if the maximum certificated take-off mass of the aircraft is above 5,700 kg

35. INVESTIGATION PROCEDURE FOR GENERAL AVIATION AIRCRAFT ACCIDENT OR SERIOUS INCIDENT

This procedure is applicable to the investigation of a general aviation aircraft accident or serious incident. For such occurrence, 3 investigators (engineering, operations and recorder) would normally be deployed.

35.1 Actions of AAIG-BD/AAIT on Receipt of Notification

- a) AAIG-BD Duty Officer (DO) to:
  - 1. Inform the Head of AAIG-BD who will activate AAIT and other investigators as applicable
  - 2. Proceed to the occurrence site or the aircraft as soon as possible with the DO kit bag
  - 3. Gather as much information about the occurrence as possible





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4. Confirm with ATS that ATC recordings and other relevant material are impounded
5. Arrange for ATC personnel involved to undergo medical examinations
6. Arrange to impound all maintenance records

b) AAIG-BD to appoint investigator-in-charge (IIC) and advisers

### 35.2 Actions of the DO on Site

- a) The DO shall assume the responsibility of the IIC until the arrival of the IIC. He should carry out the following (with the help of other investigators who have turned up) pending the arrival of the IIC:
  1. Identify himself to the Police, and assist the Police officer-in-charge in ensuring that the occurrence site or the aircraft is properly secured
  2. Identify himself to the rescue force commander (who will be from the aerodrome authority if the occurrence site is at the airport, or who will be from Bangladesh CDF if the site is outside the airport) and provide advice to him as necessary (e.g. to advise on preservation of evidence for investigation purposes)
  3. Arrange for removal of power from the CVR/FDR, if installed, as soon as possible
  4. Retrieve and impound the recorders at first opportunity
  5. Make a preliminary survey of the site and note the wreckage condition and debris distribution
  6. Coordinate with the rescue force commander and other on-site personnel to identify hazardous areas, have them marked, and implement any necessary accident site hazards control measures
  7. Take steps to preserve, through photography or other means, any evidence of a transitory nature (e.g. before it is washed away by rain water) or which might be removed, effaced, lost or destroyed
- b) The DO will brief the IIC when the latter arrives on site. The IIC will take over the tasks in paragraph a).

### 35.3 Action of Investigator-in-Charge (IIC)

- a) Walk through the site and obtain a briefing by the rescue force commander
- b) Assign an investigator to obtain statements from the pilots, to accompany them for their medical examinations (with a Police escort if necessary) and to interview them, if possible
- c) Assign an investigator to obtain statements from eyewitnesses and arrange for interview
- d) Gather the names and contacts of witnesses for future communications



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- e) Remind all investigation personnel of the possible safety hazards on site
- f) Decide on the investigation groups that need to be formed and assign investigators as group chairmen to set up the investigation groups
- g) Organize the on-site tasks (taking measurements of marks, tracks, etc.)
- h) Carry out the necessary briefing (e.g. regarding arrangements on coordination with other parties concerned, manpower, and equipment needed)
- i) Manage the investigation groups
- j) Conduct regular briefing and debriefing with the investigators involved
- k) Maintain log of receipt of all documents/items received by the investigation team as evidence
- l) Maintain log of activities and events
- m) Request for external assistance, as necessary
- n) Liaise with the Rescue Coordination Centre in the case of a sea crash
- o) Activate sea salvage company (e.g. SMIT), if necessary
- p) Arrange for video recording of wreckage removal or recovery

### 35.4 Coordination with Security Agency

Confirm with the Police regarding the wreckage security arrangement, provision of Police escort, information on witnesses, and accident site photography

### 35.5 Coordination with Rescue Agency

- a) Perform, or assign a person to perform, accident site risk management
- b) Confirm with the rescue force commander on the hazardous areas and their marking

### 35.6 Coordination with Foreign Investigators

- a) Liaise with the Accredited Representatives
- b) Convene opening meeting and conduct the necessary briefing (e.g. on transport, logistics and administrative arrangements) after Accredited Representatives and their advisers have arrived
- c) Assign the foreign participants to the investigation groups

### 35.7 Coordination with Owner of Aircraft

- a) Liaise with owner of the aircraft concerned on the following:
  - 1. Obtain pilots' particulars
  - 2. Obtain copies of pilots' licenses, log books



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3. Obtain copies of all documents on board the aircraft (e.g. certificate of registration, certificate of airworthiness, flight manual, operations manual, load sheet, weight and balance schedule, fuel log)
4. Obtain passenger details, if applicable
5. Arrange for recovery of aircraft wreckage from the sea (if judged necessary), in the case of a sea crash
6. Arrange to move the wreckage to another location for storage or continuing examination, if necessary

35.8 Coordination with Foreign States

- a) Notify the States concerned of the occurrence and request for nomination of Accredited Representatives:
  1. State of Registry
  2. State of the Operator
  3. State of Manufacturer
  4. State of Design
  5. ICAO (if the maximum certificated take-off mass of the aircraft is above 2,250 kg or if the aircraft is a turbojet-powered aeroplane)
- b) Liaise with the Accredited Representatives accordingly
- c) Issue AAIG-BD's guidelines for foreign participants and require these participants to acknowledge receipt
- d) Arrange for all non-AAIT participants to sign a Non-Disclosure Agreement, as necessary
- e) Issue credentials to non-AAIT participants

35.9 Conduct of Investigation:

- a) Aircraft structure, systems and power-plant Investigators of AAIT
  1. Document damages
  2. Document conditions of aircraft structure and systems involved
  3. Examine and record/photograph/videotape the settings, readings and positions of control levers, instruments, switches, circuit breakers, indicators, flight/ engine controls, etc., in the cockpit
  4. Identify and record/photograph/videotape important evidence (e.g. material failures, ground tracks, switch positions, etc.)
  5. Take measurements and note locations of marks, tracks, etc.
  6. Collect POL (fuel, oil, hydraulic fluids) samples, if necessary
  7. Obtain the relevant aircraft and engine manuals for reference
  8. Obtain and review aircraft and engine maintenance records



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9. Arrange testing of aircraft or engine component, if necessary
10. Arrange for metallurgical examination, if necessary
11. Interview maintenance personnel, if necessary
12. Initiate wreckage recovery (for a sea crash)
13. Record conditions of recorders when found and rinse and immerse recorders, if installed, in fresh water when recovered from the water
14. Read out CVR/FDR

b) Air traffic services Investigators of AAIT

1. Arrange for interview of the air traffic controllers involved
2. Impound ATC communications tapes, radar recordings, etc.
3. Arrange to listen to the ATC recordings and obtain transcription of the recordings
4. Impound operations log and maintenance records of navigational aids, etc., if necessary
5. Arrange for flight checking of navigational aids, if necessary
6. Obtain NOTAMs, meteorological records, etc.
7. Obtain copies of the licenses and roster of the air traffic controllers involved

c) Survival Factors Analyst Investigators of AAIT

1. Inspect and record/photograph/videotape the conditions of the aircraft for crashworthiness investigation (e.g. fuselage structure, emergency egress doors, seats and seat belts)
2. Examine and record/photograph/videotape the conditions and use of emergency equipment (e.g. oxygen masks, emergency exits)
3. Obtain the seating plan and injury records of the passengers
4. Interview firefighters, crew members, passengers, survivors, witnesses, etc.

35.10 Analysis and Report Writing Investigators of AAIT

- a) Issue safety recommendations to the relevant organisations, if there are immediate safety concerns
- b) For an accident, prepare and issue Preliminary Report within 30 days
- c) Analyze data gathered (e.g. formulation and proof of hypotheses)
- d) Formulate/issue safety recommendations
- e) Coordinate with the Accredited Representatives to draft the Final Report
- f) Invite comments on the draft Final Report, allowing a 60 days comment period:
  1. State that instituted the investigation
  2. State of Registry
  3. State of the Operator



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4. State of Manufacturer
  5. State of Design
  6. States that participated in the investigation
- g) Issue an interim statement on the progress of the investigation if the Final Report cannot be released within 12 months
- h) Complete the Final Report
- i) Disseminate Final Report to the States and organizations involved:
1. State that instituted the investigation
  2. State of Registry
  3. State of the Operator
  4. State of Manufacturer
  5. State of Design
  6. States that participated in the investigation
  7. States that provided relevant information, significant facilities or experts
  8. States that suffered fatalities or serious injuries to its citizen
  9. ICAO, if the maximum certificated take-off mass of the aircraft is above 5,700 kg
- j) Make public the Final Report
- k) For an accident, send Accident Data Report to ICAO if the maximum certificated takeoff mass of the aircraft is above 2,250 kg
- l) For a serious incident, send Incident Data Report to ICAO if the maximum certificated takeoff mass of the aircraft is above 5,700 kg

### 36. INVESTIGATION PROCEDURE FOR GENERAL AVIATION AIRCRAFT INCIDENT

This procedure is applicable to the investigation of a general aviation aircraft incident (non air traffic services related), other than a serious incident, when the Investigator in Charge (IIC) has become aware of it and has caused an investigation to be carried by an investigator-in-charge (IIC). For such occurrence, 2 investigators (engineering, operations) would normally be deployed.

#### 36.1 Actions to be Taken by IIC

- a) Proceed to the aircraft as soon as possible with the DO kit bag
- b) Gather as much information about the incident as possible
- c) Decide, basing on information gathered, if ATC recordings and other relevant material need impounding
- d) Arrange to impound all maintenance records
- e) Arrange for removal of power from the CVR/FDR, if installed, as soon as possible
- f) Retrieve and impound the CVR/FDR at first opportunity



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- g) Take steps to preserve, through photography or other means, any evidence of a transitory nature (e.g. before it is washed away by rain water) or which might be removed, effaced, lost or destroyed
- h) Interview or obtain statements from pilots
- i) Obtain pilots' particulars and copies of pilots' licenses and log books
- j) Interview or obtain statements from witnesses
- k) Notify, if necessary, the States concerned of the incident and request for nomination of Accredited Representatives to:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State of Manufacturer
  - 4. State of Design
- l) Liaise with respective Accredited Representatives accordingly

Note: The investigation would focus on areas that are relevant, which depends on the nature of the incident.

### 36.2 Action by Aircraft Structure, Systems and Power-Plant Investigators

- a) Examine and record/photograph/videotape the conditions of the aircraft structure and systems involved
- b) Examine and record/photograph/videotape the settings, readings and positions of control levers, instruments, circuit breakers, switches, indicators, flight/ engine controls, etc., in the cockpit
- c) Identify and record/photograph/videotape important evidence (e.g. material failures, ground tracks, switch positions, etc.)
- d) Take measurement and note locations of marks, tracks, etc.
- e) Collect POL (fuel, oil, hydraulic fluids)
- f) Interview maintenance personnel, if necessary
- g) Obtain the relevant aircraft systems and engine manuals for reference
- h) Obtain and review aircraft and engine maintenance records
- i) Arrange for testing of aircraft systems, engines and components, if necessary
- j) Arrange for metallurgical examination, if necessary

### 36.3 Flight Operations Investigators

- a) Interview pilots and witnesses as necessary
- b) Obtain crew schedule and training records of the pilots

### 36.4 Analysis and Report Writing Investigators





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- a) Issue safety recommendations to the relevant organisations, if there are immediate safety concerns
- b) Analyze data gathered (e.g. formulation and proof of hypotheses)
- c) Formulate/issue safety recommendations
- d) Draft the Final Report
- e) Invite comments on the draft Final Report, allowing a 60 days comment period:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State of Manufacturer
  - 4. State of Design
  - 5. States that participated in the investigation
- f) Issue an interim statement on the progress of the investigation if the Final Report cannot be released within 12 months
- g) Complete the Final Report
- h) Disseminate Final Report to the States and organizations involved:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State of Manufacturer
  - 4. State of Design
  - 5. States that participated in the investigation
  - 6. States that provided relevant information, significant facilities or experts
  - 7. ICAO, if the maximum certificated take-off mass of the aircraft is above 5,700 kg
- i) Make public the Final Report
- j) Send Incident Data report to ICAO if the maximum certificated take-off mass of the aircraft is above 5,700 kg

### 37. INVESTIGATION PROCEDURE FOR AIR TRAFFIC SERVICES RELATED SERIOUS INCIDENT

This procedure is applicable to the investigation of a purely air traffic services (ATS) related serious incident (e.g. loss of separation). For such occurrence, 2 investigators (operations and recorder) would normally be deployed. When necessary, external assistance will be sought.

#### 37.1 Actions on Receipt of Notification

- a) Action by AAIG-BD Duty Officer (DO)
  - 1. Inform the Investigator in Charge (IIC) (CI) and activate other investigators as necessary





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2. Proceed to the aircraft, if necessary
3. Gather as much information about the occurrence as possible
4. Confirm with ATS that ATC recordings and other relevant material are impounded
5. Arrange for ATC personnel involved to undergo medical examinations

b) AAIG-BD to appoint investigator-in-charge (IIC) and advisers

37.2 Actions to be Taken By IIC

a) Aircraft Not Landing in State

1. Alert operator concerned to secure the CVR/FDR when the aircraft has landed at destination
2. Inform the States of Registry and the State of the Operator concerned of the occurrence and seek their assistance in securing the CVR/FDR recordings from the operator
3. Arrange with operator and/or the States concerned for interview of flight crew members and obtain copies of flight crew licences, crew schedule and training records

37.3 Aircraft Landing in State

1. Liaise with the local representative of the operator to secure the CVR/FDR
2. Liaise with the local representative of the operator to round up the flight crew members for medical examination and interview
3. Obtain copies of flight crew licences and log books
4. Obtain crew scheduling and training records
5. Obtain copies of the relevant documents in the cockpit (e.g. technical log, deferred defect log, MEL etc)

37.4 Coordination with Air Traffic Services Investigators

1. Arrange for interview of the air traffic controllers involved
2. Impound ATC communications tapes, radar recordings, etc.
3. Arrange to listen to the ATC recordings and obtain transcription of the recordings
4. Impound operations log and maintenance records of navigational aids, etc., if necessary
5. Arrange for flight checking of navigational aids, if necessary
6. Obtain NOTAMs, meteorological records, etc.
7. Obtain copies of the licenses and roster of the air traffic controllers involved

37.5 Coordination with Foreign Investigators



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- a) Notify the States concerned of the occurrence and request for nomination of Accredited Representatives to:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State of Manufacturer
  - 4. State of Design
  - 5. ICAO (if the maximum certificated take-off mass of the aircraft is above 2,250 kg or if the aircraft is a turbojet-powered aeroplane)
- b) Liaise with the Accredited Representatives accordingly

37.6 Analysis and Report Writing Investigators

- a) Issue safety recommendations to the relevant organizations, if there are immediate safety concerns
- b) Analyze data gathered (e.g. formulation and proof of hypotheses)
- c) Formulate/issue safety recommendations
- d) Coordinate with the Accredited Representatives to draft the Final Report
- e) Invite comments on the draft Final Report, allowing a 60 days comment period:
  - 1. State that instituted the investigation
  - 2. State of Registry
  - 3. State of the Operator
  - 4. State of Manufacturer
  - 5. State of Design
  - 6. State that participated in the investigation
- f) If the Final Report cannot be released within 12 months, IIC to issue an interim statement on the progress of the investigation
- g) Complete the Final Report
- h) Disseminate the Final Report to the States and organizations involved:
  - 1. State that instituted the investigation
  - 2. State of Registry
  - 3. State of the Operator
  - 4. State of Manufacturer
  - 5. State of Design
  - 6. States that participated in the investigation
  - 7. States that provided relevant information, significant facilities or experts



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8. ICAO (if the maximum certificated take-off mass of the aircraft is above 5,700 kg)

- i) Make public the Final Report
- j) Send the Incident Data Report to ICAO if the maximum certificated take-off mass of the aircraft is above 5,700 kg.

### 38. INVESTIGATION PROCEDURE FOR AIR TRAFFIC SERVICES RELATED INCIDENT

This procedure is applicable to the investigation of a purely air traffic services (ATS) related incident (e.g. loss of separation, not involving any aircraft hardware or equipment), other than a serious incident, when the Investigator in Charge (IIC) has become aware of it and has caused an investigation to be carried by an investigator-in-charge (IIC). For such occurrence, 2 investigators (operations and recorder) would normally be deployed. When necessary, external assistance will be sought.

#### 38.1 Actions to be Taken By IIC

##### a) Aircraft Not Landing in State

1. Alert operator concerned to secure the CVR/FDR when the aircraft has landed at destination
2. Inform the States of Registry and the State of the Operator concerned of the occurrence and seek their assistance in securing the CVR/FDR recordings from the operator
3. Arrange with operator and/or the States concerned for interview of flight crew members and obtain copies of flight crew licences, crew schedule and training records

##### b) Aircraft Landing in Bangladesh

1. Liaise with the local representative of the operator to secure the CVR/FDR
2. Liaise with the local representative of the operator to round up the flight crew members for medical examination and interview
3. Obtain copies of flight crew licences and log books
4. Obtain crew scheduling and training records
5. Obtain copies of the relevant documents in the cockpit (e.g. technical log, deferred defect log, MEL, etc)

#### 38.2 Coordination With Air Traffic Services Investigators

- a) Arrange for interview and medical examination of the air traffic controllers involved



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- b) Impound ATC communications tapes, radar recordings, etc.
- c) Arrange to listen to the ATC recordings and obtain transcription of the recordings
- d) Impound operations log and maintenance records of navigational aids, etc., if necessary
- e) Arrange for flight checking of navigational aids, if necessary
- f) Obtain NOTAMs, meteorological records, etc.
- g) Obtain copies of the licences and roster of the air traffic controllers involved

38.3 Coordination With Foreign Investigators

- a) Notify, if necessary, the States concerned of the occurrence and request for nomination of Accredited Representatives
  - 1. State of Registry
  - 2. State of the Operator
- b) Liaise with the Accredited Representatives accordingly

38.4 Analysis and Report Writing Investigator

- a) Issue safety recommendations to the relevant organizations, if there are immediate safety concerns
- b) Analyze data gathered (e.g. formulation and proof of hypotheses)
- c) Formulate/issue safety recommendations
- d) Draft the Final Report
- e) Invite comments on the draft Final Report, allowing a 60 days comment period:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. State that participated in the investigation
- f) If the Final Report cannot be released within 12 months, IIC to issue an interim statement on the progress of the investigation
- g) Complete the Final Report
- h) Disseminate Final Report to the States and organizations involved:
  - 1. State of Registry
  - 2. State of the Operator
  - 3. States that participated in the investigation
  - 4. State that provided relevant information, significant facilities or experts
  - 5. ICAO (if the maximum certificated take-off mass of the aircraft is above 5,700 kg)



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- i) Make public the Final Report
- j) Send Incident Data Report to ICAO if the maximum certificated take-off mass of the aircraft is above 5,700 kg

### 39. INVESTIGATION MEETINGS

#### 39.1 Need for Coordination Meetings

- a) In a major investigation, especially one in which foreign accredited representatives and their technical advisors are participating, the investigation team needs to be organized properly to ensure smooth and effective execution of the investigation tasks. Regular coordination meetings of the investigation team will be necessary.
- b) Members of the media, attorneys, insurers, NOK and persons representing claimants are to be excluded from the coordination meetings.
- c) A member of the Secretariat/Support group will usually serve as Secretary of the coordination meetings.

#### 39.2 Inaugural Meeting

- a) The investigator-in-charge (IIC) shall, at the earliest opportunity when most of the accredited representatives and advisors have arrived, convene an inaugural meeting of the investigation team for the following purposes:
  - 1. To introduce the IIC himself and the Deputy IIC, if designated, and other AAIT members.
  - 2. To get the investigation team members to introduce themselves (including the accredited representatives and their advisers, and the coordinators of the participating external organizations and agencies).
  - 3. To convey the administrative and logistics arrangements.
  - 4. To set the ground rules for the AAIT investigation.
  - 5. To remind all participants that the investigation legislation in State is the Air Navigation (Investigation of Accidents and Incidents) Order.
  - 6. To highlight the entitlement of non-AAIT participants.
  - 7. To highlight the obligations of non-AAIT participants, especially as regards information or documents obtained during the investigation.
  - 8. To brief on all known and potential hazards and safety procedures.
  - 9. To provide a status summary of the investigation efforts.
  - 10. To announce the date/time for the next progress meeting.



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### 39.3 Progress Meetings During Field Investigation Phase

- a) The IIC will convene a progress meeting (typically once a day in the evening) for the following purposes:
  1. Each investigation group to provide a summary update of their activities and key findings, if any.
  2. Work planning for the following day.
  3. Preparation for press conference for the day, if necessary.
- b) The accredited representatives and the representative/coordinator of each of the organizations participating in the investigation are expected to be present at the progress meetings
- c) The various investigation groups may be requested to present a summary of their factual data reports or field notes at a progress meeting before the groups are disbanded.

### 39.4 Coordination Meetings After Field Investigation Phase

- a) These may be convened as decided by the IIC.

## 40. SAMPLE IIC OPENING STATEMENT AT INAUGURAL INVESTIGATION MEETING IIC's OPENING STATEMENT

Ladies and Gentlemen,

Good morning/afternoon/evening.

### Welcoming

- a) First of all, I would like to welcome you to the investigation team. We are here to investigate the accident involving [airline, flight #, aircraft type] that crashed at [location], at [time, if available] on [date]. My name is \_\_\_\_\_ and I am the investigator-in-charge. My deputy is \_\_\_\_\_.
- b) I would also like to introduce my other AAIT investigators. They are:

Mr ...

Mr ...

### Guidelines for participants





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- c) I have distributed our guidelines on participation in AAIT investigation (see Appendix 2 to Chapter 9) that addresses several pertinent AAIT procedures regarding the conduct of aircraft accident investigations. Please read the guidelines and make sure that you understand all of the information given. We appreciate your cooperation in adhering to the guidelines. Please bear in mind that these guidelines are not intended to be all-encompassing. If you have any questions concerning procedures during the investigation or believe that you will not be able to follow a procedure, please see me.
- d) If you have not completed a Registration Form and an Acknowledgement Form on Entitlement and Obligations of your participation, please see the [Secretary of the meeting].
- e) You may wish to note that the legislation that governs investigation in Bangladesh is the Air Navigation (Investigation of Accidents and Incidents) Order, which is in line with the Annex 13 Standards and Recommended Practices.
- f) The AAIT allows the participation in its accident investigations of those organisations or agencies whose employees, functions, activities, or products were involved in the accident and which can provide suitable qualified technical personnel to actively assist in the field investigation. Therefore, you may be asked to describe your qualifications and the qualifications of the individuals you nominate to participate in this investigation. The AAIT may require a person to leave the investigation team if it is determined that he is not in a position to contribute knowledge or skills that could be relevant to the investigation.
- g) Each participating organization will have to appoint a person to supervise the members of his organization and coordinate with me and his accredited representative. This coordinator should possess sufficient authority within his organization to be able to make decisions on behalf of his organization during this field phase of the investigation. He will be the AAIT's direct and official point-of-contact for the organization and, therefore, should maintain contact with me at all times while we are here. Please fill in the investigation team registration form, if you have not done so, so that we will have your contact numbers.

### Identification passes

- h) Each member of the investigation team will be given an AAIT identification badge allowing entry to the AAIT Accident Investigation Command Centre. The badge may have to be exchanged at the Police Command Post on site for a Police security pass before you can access the accident site. Please wear the AAIT badge and/or the Police pass at all times when you are on site. Please also remember to return to us your badge and other relevant items issued to you before you leave the field investigation.

### Safety on site





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- i) As you know, an aircraft accident site can be a very dangerous environment. So please be very careful when you are working on or near the accident site and wear appropriate protective clothing and gloves, boots, goggles, and the like. No smoking on site, of course. You may also not be admitted onto the accident site if you have not been suitably immunized. Please also be prepared for possible psychological effects that a tragedy such as this accident can have on you.

### Investigation groups

- j) Ladies and Gentlemen, before I explain the grouping of the investigation participants, I would like all of us to introduce ourselves, giving our names, organizations and job titles or specialty areas.
- k) [After the introduction] Thank you, Ladies and Gentlemen. Now, I would like to introduce you to the various investigation groups.
- l) At this stage, we will have the following investigation groups, namely: [Power Plant Group, Systems Group, Structure Group, Maintenance and Record Group, Weather Group, Recorder Group, Operations Group, Human Factors Group, ATC Group, Cabin Safety Group, etc.]
- m) The group chairmen are investigators from the AAIT. I am going to call out their names now. Please stand up when your names are called:
- |                                 |           |
|---------------------------------|-----------|
| 1. Power Plant Group            | Mr/Dr ... |
| 2. Systems Group                | Mr/Dr ... |
| 3. Structure Group              | Mr/Dr ... |
| 4. Maintenance and Record Group | Mr/Dr ... |
| 5. Weather Group                | Mr/Dr ... |
| 6. Recorder Group               | Mr/Dr ... |
| 7. Operations Group             | Mr/Dr...  |
| 8. Human Factors Group          | Mr/Dr ... |
| 9. ATC Group                    | Mr/Dr ... |
| 10. Cabin Safety Group          | Mr/Dr ... |
- n) Participants from the various organizations will be assigned to the appropriate investigation groups. Please decide which area you are able to best contribute and note the group you would like to participate in. Please report to the AAIG-BD of the group you would like to be in after this meeting.



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- o) If the organizations' coordinators wish to bring in additional members from their organizations to assist the investigation team, please let me know beforehand.

### Progress meetings

- p) We will have daily progress meetings to share the facts that we have gathered during the course of the day, and to plan for subsequent investigation activities. The timing of the meetings will be notified to you.
- q) I would like the accredited representatives and the various organizations' coordinators to be present at these meetings.

### Confidentiality of information

- r) The AAIT will disseminate to the public all information regarding the accident at the appropriate times.
- s) Please refrain from discussing the accident in public, or giving information about it to the media. I would like to remind you of your obligations in this regard as highlighted in your Acknowledgement Form on Entitlement and Obligations.

### Closing

- t) Are there any questions?
- u) Ladies and Gentlemen, I thank you for your attention and cooperation and I hope we will have a smooth investigation.

## 41. GUIDELINES ON PARTICIPATION IN AAIT FIELD INVESTIGATION

### 41.1 For Non-AAIT Participants

- a) To verify your eligibility to participate in the AAIT investigation with your accredited representative (if you are from the State of Registry, the State of the Operator, the State of Design or the State of Manufacture) or with the investigator-in-charge (for State participants or if you are not from any of the above-mentioned States).
- b) To complete an AAIT Registration Form and indicate a way for you to be contacted.
- c) To update the AICC if there are changes to the particulars provided during the initial registration.



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- d) To wear your AAIT identification badge, if given.
- e) To sign the Acknowledgement Form on Entitlement and Obligations of your participation.
- f) To bear in mind that the legislation that governs investigation in Bangladesh is the Air Navigation (Investigation of Accidents and Incidents) Order, which is in line with Annex 13 Standards and Recommended Practices.
- g) To abide by the procedures and instructions of the AAIT or the IIC.
- h) To be suitably immunized before you may be admitted onto the accident site.
- i) To be responsible for your own safety, and wear appropriate protective clothing.
- j) To maintain contact with the leader of your organization and/or your accredited representative at all times.
- k) To provide to the AAIT or the IIC with all relevant information available to you.
- l) To inform the IIC (or the AICC), the leader of your organization and/or and your accredited representative when you are leaving the field investigation.
- m) To return to the AICC the AAIT identification badge and other relevant items issued to you before you leave the field investigation.

42. ACKNOWLEDGEMENT FORM ON ENTITLEMENT AND OBLIGATIONS

(To be completed in duplicate. One copy is for the Investigator-in-charge and one copy is for the investigation participant.)

Section 1: Authorization to participate by Investigator-in-charge (IIC)

This is to confirm that, (Name) \_\_\_\_\_ of (Organisation) \_\_\_\_\_, whose signature appears in Section 3 below, is authorised to participate in the following AAIT investigation in his/her capacity as Accredited Representative / Adviser / Expert / Others (delete accordingly):

|                |                        |
|----------------|------------------------|
| Aircraft type: | Aircraft registration: |
| Location:      | Date of occurrence:    |

Name of IIC: \_\_\_\_\_



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Signature of IIC: \_\_\_\_\_

### Section 2: A participant's entitlement and obligation

| General  |   |
|--|---|
| Entitlement:   | Obligations   |
| <p>)] To participate to the extent as authorised by the IIC.</p> <p>Note: Participation of States other than the State of Registry, the State of the Operator, the State of Design and the State of Manufacture may be limited to those matters which entitled such States to participate.</p> | <p>)] To participate in the investigation under the control and supervision of the IIC.</p> <p>)] To provide the AAIT with all relevant information available to him/her.</p> <p>)] Not to divulge information on the progress and the findings of the investigation without the express consent of the IIC.</p> <p>)] To adhere to security and accident site access procedures and to wear an appropriate security pass issued or arranged by the AAIT.</p> <p>)] To abide by the health /safety (H&amp;S) procedures implemented by the IIC or his/her H&amp;S advisors.</p> |

| Accredited Representative  |  |
|--|--|
| Entitlement  | Obligations  |
| <p>)] To visit the scene of the accident/incident.</p> <p>)] To examine the wreckage.</p> <p>)] To obtain witness information and suggest areas of questioning.</p> <p>)] To have full access to all relevant evidence as soon as possible.</p> <p>)] To receive copies of all pertinent documents.</p> <p>)] To participate in read-outs of recorded media.</p> <p>)] To participate in off-scene investigative activities such as component examinations, technical briefings, tests and simulations.</p> <p>)] To participate in investigation progress meetings including deliberations related to analysis, findings, causes, contributing factors and safety recommendations.</p> <p>)] To make submissions in respect of the various elements of the investigation.</p> | <p>)] To supervise his/her Advisers, allowing them to participate in the investigation only to the extent necessary to make his/her participation effective.</p> |



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|  |  |
|--|--|
|  |  |
|--|--|

| Advisor   |   |
|---|---|
| Entitlement   | Obligations   |
| <ul style="list-style-type: none"> <li> </li> </ul> | <ul style="list-style-type: none"> <li> </li> </ul> |

| Expert (appointed by a State having suffered fatalities or serious injuries to its citizens) |             |
|--|-------------|
| Entitlement:   | Obligations |
| <ul style="list-style-type: none"> <li> </li> <li> </li> <li> </li> </ul>                    |             |

## Section 3: Acknowledgement by Accredited Representative / Advisor / Expert / Others

By placing my signature hereon, I acknowledge that I have read and understood my entitlement and obligations as described in Section 2 above.

Name: \_\_\_\_\_

Signature:\_\_\_\_\_

### 43. FLIGHT RECORDER READ-OUT

- a) The investigator-in-charge (IIC) shall make effective use of flight recorders in the investigation of an accident or incident.
- b) The AAIT has a flight recorder read-out facility. If the read-out need is beyond the capability of the AAIT facility, the IIC shall arrange for the read-out of the flight recorders at other facilities as soon as possible. In choosing a read-out facility available from other States, considerations should be given to the following:
  1. The capabilities of the read-out facility



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2. The timeliness of the read-out
  3. The location of the read-out facility
- c) In general, the IIC may consider using the read-out facilities in Australia, Canada, China, France, Taiwan, the UK and the US.
- d) The investigator or adviser assigned to supervise the reading out of the flight recorders shall control the number of people participating in the read-out and transcription process. The relevant investigation group (typically the Recorder group or the Flight Operations group) shall verify the read-outs and transcription before seeking the IIC's clearance for the read-outs and transcripts to be released to the other investigation groups for reference.

### 44. SPECIALISED EXAMINATIONS AND TESTING

#### 44.1 General

- a) Specialized examinations may include component testing, examination using scanning electron microscope, chemical analysis, systems testing, flight testing (with an actual aircraft or in a simulator), complete or partial reconstruction of the aircraft or specific systems.
- b) Laboratory examination and testing generally entails the use of specialized equipment not available in the fields and often beyond the capability of an aircraft maintenance facility. Consideration should be given to using the component manufacturer's facilities where specialized equipment and trained personnel are readily available.
- c) For flight testing in a simulator, the aircraft manufacturer's facilities may have to be considered.
- d) Laboratory testing should not be limited to standards tests. In addition to testing for compliance with appropriate specifications, it is sometimes necessary to determine the actual properties of the specimen (such as metal, material, fuel and oil).
- e) The investigator-in-charge should assign an investigator to supervise the Specialized examination and testing, or delegate the supervision to a suitable person (e.g. an accredited representative or one of his advisors, or an official of a foreign accident investigation authority).
- f) Where necessary, non-disclosure agreement with the examination or testing service providers should be worked out.

#### 44.2 Documentation



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- a) A test plan should be formulated for the test to be conducted. As far as possible, the test plan should identify the following:
  - 1. Item/system to be tested
  - 2. Objective of the test
  - 3. Test venues
  - 4. Test methods
  - 5. Test equipment
  - 6. Test conditions
  - 7. Test procedures
  - 8. Test schedule
  - 9. Responsibilities of the various parties
  - 10. Data to be collected from the test
- b) Adequate records should be kept and reports compiled for the examination or testing. Photographs should be taken. Videotaping of the examination process should also be considered.

### 45. COMPONENT TESTING INVESTIGATION CONDUCTED BY AAIT

#### 45.1 General

When choosing a system and components for specialized examination and testing, it is desirable to include as many components of the system as practicable, e.g. wiring harnesses, relays, control valves and regulators. Tests conducted on a single component will reveal information about the operation of that particular unit only, whereas the problem may actually have been in one of the related components. The most valid test results will be obtained by using as many of the original system component as possible.

#### 45.2 Information pertinent to failed parts or components to be examined

- a) Each component should be tagged with its name, part number, serial number and the accident identifier. The investigators should maintain a listing, descriptive notes and photographs of all components which are to be tested. The components themselves should be kept in protective storage until ready for shipping.
- b) When investigators forward failed parts or components for laboratory testing, they should provide as much information as possible relative to the circumstances contributing to the failure of such parts or components, including a detailed history of the parts or components and their own suspicions, if any. The information in respect of a part or component may include the following:





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1. The date it was installed on the aircraft.
  2. The total number of service hours.
  3. The total number of hours since last overhaul or inspection.
  4. Previous difficulties reported.
  5. Any other pertinent data that might shed light on how and why the part or component failed.
  6. Relevant manuals
- c) The information provided by the investigator is intended only as a guideline to the specialist carrying out the examinations who should, nevertheless, explore all relevant aspects.

### 45.3 Transporting of parts or components

- a) Components should be packed to minimize damage during transport. Particular care should be taken to ensure that fracture surfaces are protected by appropriate packing material so that they are not damaged by mating surfaces coming into contact with each other or with other parts.
- b) Whenever possible, power-plants should be shipped in their special stands and containers. Other heavy components, such as flight control power units, stabilizer screw jack assemblies and actuators, should be packed in protective wrapping and placed in separate wooden containers. Blocks or bracing should be installed inside the containers to prevent any movement of the component during transport.
- c) Smaller and lighter components may be shipped in the same manner with more than one to a box but in a manner which will prevent them from coming into contact with one another.
- d) Very light units may be packaged in heavy corrugated pasteboard cartons with sufficient packing material to prevent damage from mishandling during transport.
- e) The investigators should label all boxes and cartons appropriately and should make an inventory list for each container.

### 45.4 Notes and test results

- a) Notes concerning the Specialized examinations should be kept by the facility personnel, and the results should be recorded on the standard forms used by the facility for such work. The investigator supervising the work should also take notes.
- b) Prior to conducting the examinations, the supervising investigator should brief the investigators and the facility personnel involved on the type and extent of the



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examinations and tests to be carried out and review with them the test procedures to ensure their adequacy.

- c) Any discrepancies found during testing should be photographed and documented with an explanation as to their bearing on the operation of the system or component. It should be kept in mind that the tolerances called for in the test procedures may only apply to new or overhauled components and that components which have been in service for some time may have acceptable limits outside these tolerances. If the nature of the discrepancy warrants, a component should be disassembled following completion of the tests to ascertain the cause of failure. Photographs should be taken of the parts prior to and during disassembly, and the findings should be documented.
- d) Following completion of the examinations, the supervising investigator should review and discuss the results with the investigators and the facility personnel. When there is agreement that the data gathered present a true and factual picture of the component's condition and capabilities, the notes and test results should be reproduced to serve as a record of the examination and testing of the system or component.

### 46. FRACTURE INVESTIGATION

Listed below are ten general areas of inquiry in any fracture investigation. Although these areas could be interrelated, the sequence in which these areas are considered is not important.

#### 46.1 Surface of fracture

- a) What is the fracture mode? For example, shear, cleavage, inter-granular, fatigue.
- b) Are the origins of the fracture visible? Are they located at the surface or below the surface?
- c) How many fracture origins are there? The answer concerns the relative magnitude of the actual stress to the actual strength of the part at the location of failure.
- d) Is there evidence of corrosion, paint or some other foreign material on the fracture surface? Possibility of a pre-existing crack prior to the fracture?
- e) What is the relation of the fracture direction to the direction of the stress that caused the fracture and to the normal or expected fracture direction?
- f) Was the stress unidirectional or was it reversed in direction? Is the assumption regarding the operation of the mechanism correct?

#### 46.2 Surface of part



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- a) What is the contact pattern on the surface of the part and on the surface of the mating parts?
- b) Has the surface of the part been deformed by loading during service or by damage after fracture?
- c) Is there any evidence of damage on the surface of the part from manufacture, assembly, repair or service? For example, tool marks, grinding damage, poor welding or plating, arc strikes, corrosion, wear, pitting fatigue, fretting.

#### 46.3 Geometry and design

- a) Are there any stress concentration related to the fracture?
- b) Is the part intended to be relatively rigid, or is it intended to be flexible?
- c) Does the part have a basically sound design?
- d) How does the part and its assembly work?
- e) Is the part dimensionally correct?

#### 46.4 Manufacturing and processing

- a) Are there internal discontinuities or stress concentrations that could cause a problem?
- b) Wrought metal - Does it contain serious seams, inclusions, or forging problems such as end grain, laps or other discontinuities that could have an effect on performance?
- c) Casting - Does it contain shrinkage cavities, cold shuts, gas porosity, or other discontinuities, particularly near the surface of the part?
- d) Weld - Was the fracture through the weld itself or through the heat-affected zone in the parent metal adjacent to the weld? If through the weld, were gas porosity, undercutting, under-bead cracking, lack of penetration, or other problems a factor? If through the heat-affected zone adjacent to the weld, how were the properties of the parent metal affected by the heat of the welding?
- e) Heat treatment - Was the treatment properly performed? Evidence of inadequate heat treatment like too shallow or too deep a case depth, excessive decarburization, very coarse grain size, over-tempering, under-tempering, and improper microstructure?

#### 46.5 Properties of the material

- a) Are the mechanical properties of the metal within specified range?
- b) Are the specifications proper for the application?
- c) Are the physical properties of the metal proper for the application? For example, coefficient of thermal expansion (for close-fitting parts), density, melting point, thermal and electrical conductivity.

#### 46.6 Residual and applied stress relationship



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### 46.7 Adjacent parts

- a) What was the influence of adjacent parts on the failed part? Possibility that the fractured part may not be the primary or original failure?
- b) Were fasteners tight?

### 46.8 Assembly

- a) Is there evidence of misalignment of the assembly?
- b) Is there evidence of inaccurate machining, forming, or accumulation of tolerances?
- c) Did the assembly deflect excessively under stress?

### 46.9 Service conditions

- a) Were there any unusual occurrences such as strange noises, smells, fumes, or other happenings that could help explain the problem?
- b) Is there evidence that the mechanism was overspeeded or overloaded?
- c) Is there evidence that the mechanism was abused during service or used under conditions for which it was not intended?
- d) Did the mechanism or structure receive normal maintenance with the recommended materials (e.g. lubricants)?
- e) What is the general condition of the mechanism?

### 46.10 Environmental reactions

- a) What chemical reactions could have taken place with the part during its history (manufacturing, shipping, storage, assembly, maintenance and
- b) Service)? For example, exposure to hydrogen (during acid pickling, electroplating, etc.), exposure to corrosive environment.
- c) To what thermal conditions has the part been subjected during its existence? For example, abnormally high temperature, localized electrical arcing, grinding damage, adhesive wear, frictional heat.

## 47. MEDICAL AND AUTOPSY EXAMINATIONS

- a) The investigator-in-charge shall arrange expeditiously for medical examination (including toxicological examination) of the crew and, where appropriate, passengers and aviation personnel involved by a medical practitioner. Preferably, a medical practitioner experienced in accident investigation should be used.
- b) The investigator-in-charge shall also arrange expeditiously for complete autopsy examination of fatally injured flight crew and, where necessary, fatally injured passengers



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and cabin attendants by a pathologist. If a pathologist experienced in accident investigation is not available, the IIC should consider assigning aviation medicine trained Investigators of Accidents to liaise with and assist the pathologist.

- c) The investigator-in-charge shall also require the crew, passengers and aviation personnel involved to undergo such other tests (including a breathalyzer test) as he considers necessary for the purposes of the investigation.
- d) Guidance material related to medical, toxicological and autopsy examinations is available in the ICAO Manual of Civil Aviation Medicine (Doc 8984) and Manual of Aircraft Accident Investigation (Doc 6920).

### 48. BIRD STRIKE

#### 48.1 Investigating Occurrences Involving Bird Strikes

- a) If possible, invite a local ornithologist to the occurrence site to assist in an investigation involving a bird strike. The ornithologist will be able to advise, among other things, whether additional tasks need to be performed, such as getting evidence from live birds at the site.
- b) It may be necessary to examine a carcass and compare it with live individuals near an accident site to determine whether dead individuals have disproportionately more parasites, were contaminated with chemicals or had diseases. This may provide clues to the possible environmental issues within the airport and its surroundings.
- c) If an ornithologist is not on site to advise, the following suggestions should be considered:

#### Record the following information:

- 1. Date and time of the bird strike
  - 2. Location of the bird strike. Provide a layout or map if available.
  - 3. Weather condition
- d) Take photographs of all bird carcasses and their body parts before these are disturbed. Where possible, take the photographs with a suitable sized ruler to provide a reference to estimate the size of the bird. The photographs should include parts of the aircraft which had been impacted by the birds. If there are live birds present in the vicinity, photographs should be taken of these live birds as well, for future reference purposes.



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- e) Threat all bird carcasses and parts with caution, as they may carry diseases or parasites. Always use protective gloves and tweezers or tongs when picking up bird carcasses and parts. Wear face masks and/or eye protection as appropriate.
- f) Preserve the specimen of the damaged bird by wrapping it and all its parts in a sterile plastic bag or container and keep it in a freezer as soon as possible. Collect every feather, beak, feet or any parts that may be part of the carcass. If the bird had been reduced to a pulpy mess (such as being ingested through the engine), all remnants of the bird tissues should be collected.
- g) Look out for any ring tags that the bird might be carrying on its leg. Take close-up photographs of the ring tags. Keep the ring tags with the rest of the bird carcass.
- h) Inspect the aircraft, the runway/taxiway and the accident/incident site for any remnants of other bird carcasses. There may be more than one bird involved.
- i) Always practice good hygiene and observe basic safety measures when collecting bird remains. After completing the gathering of the remains, wash hands thoroughly, including any equipment used for collecting the remains. Masks, gloves and disposable items used during the gathering of the remains should be disposed of properly.
- j) Sending bird remains (even an entire bird) to a local ornithologist may not be a problem. However, there may be some shipping constraints when bird remains need to be sent overseas for identification, and the following should be noted:
  - 1. For a whole bird, pluck a variety of feathers, such as feathers from the breast, back, wing and tail. It is neither necessary nor desirable to send the whole carcass.
  - 2. For a partial bird, collect a variety of feathers with obvious colour or pattern.
  - 3. Where only the feathers are available, send all material found.
  - 4. Do not cut feathers from birds. The down at the base of the feather is needed for identification.
  - 5. Do not use any sticky substances with the feathers collected, such as tape or glue.
  - 6. Place the remains in a re-sealable bag. If remains are fleshy or moist, the material can be folded in paper towel or coffee filters. Use more than one re-sealable bag as appropriate.





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7. When only a small amount of material is available, wipe the impact area with paper towel and send all material/entire paper towel in a re-sealable bag. If necessary, spray the area with alcohol or water to loosen the material for collection.

### 49. WRECKAGE IN WATER

#### 49.1 Locating the Wreckage

- a) For aircraft crash at sea, the investigator-in-charge (IIC) should try to obtain the best technical expertise available. The Navy, Maritime and Port Authority, marine salvage services and accident investigation of other States known to have experience in this field (e.g. US NTSB, UK AAIT, Canada TSB) should be consulted. Advice may also be obtained from people (e.g. fishermen) with local knowledge of sea beds and currents, etc. To establish a sound system of communication and prompt response on the available assistance, the Head of AAIG-BD will create a bondage with the abovementioned organizations through signing of MoUs as applicable.
- b) The first step is to ascertain the most probable point of impact basing on floating wreckage, witness reports, search and rescue reports and radar recordings. Buoys should be positioned at the estimated point of impact.
- c) If the water is shallow (less than 60 m), search methods using divers can be effective. If the wreckage is located in deeper water, or conditions make it difficult to use divers, use of the following equipment should be considered:
  1. Underwater equipment used to locate underwater locating devices on the flight recorders.
  2. Underwater videos and cameras.
  3. Side-scan sonar equipment.
  4. Manned or unmanned submersibles.

#### 49.2 Decision to Recover the Wreckage

- a) The Head of AAIG-BD or the IIC will ascertain the circumstances and location of an accident will determine whether salvage of the wreckage is practicable. In most cases, wreckage should be recovered if it is considered that the evidence it might provide would justify the expense and effort of a salvage operation.





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- b) A decision to discontinue recovery operation should be made by the Head of AAIG-BD or the IIC in consultation with the parties concerned (the accident airline in particular).

### 49.3 Wreckage Distribution

- a) Once the wreckage has been located, a chart plotting the wreckage distribution should be prepared. In shallow waters, this can be achieved by divers. In deep waters, underwater video cameras from remotely controlled submersibles may be used.
- b) The state of the various pieces of wreckage, their connection by cables or pipes, the cutting of these connections for the salvage operations, etc., should be recorded before lifting the various pieces of wreckage from the bottom. As divers will not be experienced in accident investigation, they will need detailed briefings.

### 49.4 Preservation of the Wreckage

- a) The rates at which various metals react with salt water vary considerably. Magnesium components react quite violently and, unless recovered within the first few days, may be completely dissolved. Aluminum and most other metals are less affected by immersion in salt water. However, corrosion will rapidly accelerate once the component is removed from the water, unless steps are taken to prevent it.
- b) Once the wreckage has been recovered, its components should be thoroughly rinsed with fresh water. It may be convenient to hose the wreckage as it is raised out of the water prior to it being lowered onto the salvage vessel. Freshwater rinsing does not stop all corrosion action. When large aircraft are involved, it may not be practicable to take further anti-corrosion action on large structural parts. However, all components that require metallurgical examination will require further preservation. The application of a water-displacing fluid will provide additional corrosion protection; fracture surfaces should then be given a coat of corrosion preventives such as oil or inhibited lanolin.
- c) When organic deposits, such as soot deposits or stains, require analysis, organic protective substances should not be used. Freshwater rinsing should be employed followed by air drying. When the component is completely dry, it should be sealed in a plastic bag with an inert desiccant such as silica gel.
- d) Flight recorders should not be dried but should be kept immersed in fresh water until the assigned flight recorder specialist assumes responsibility for them.

### 49.5 Precautionary Measures



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- a) When recovering the wreckage, consideration should be given to deflating tyres and pressure containers as early as possible. Corrosion of magnesium wheel assemblies can progress rapidly to the extent that the wheel assemblies become safety hazards. Other pressure containers should be discharged as soon as their contents have been evaluated.
- b) The operation of recovery equipment and the supervision of salvage personnel should be left to the salvage contractor. The investigator may provide advice on how to attach cables, hooks, etc., to the wreckage to ensure that it is not unnecessarily damaged during the recovery. When salvage barges, which are equipped with large machinery, hoists, cables, nets, rigging equipment, etc., are used, investigators should exercise caution and, in particular, should remain clear of equipment and sling loads.

### 50. INVESTIGATION ACTIONS - DEBRIS TAGGING AND DOCUMENTATION

#### 50.1 Debris Data System

- a) Proper records should be kept of the items found from the recovery operation. The records should contain details related to each piece, such as recovery location, extent and type of damage, photographs, sketches, and the manufacturer's engineering drawings showing the part's location on the aircraft.
- b) A debris data management team should be set up to systematically record all the wreckage pieces recovered. The team should be headed by an AAIT investigator or a member of the Structures Sub-group. The team should comprise or be supported by members of the Structures Sub-group, who will examine the debris items to try to identify the portions of the aircraft where they may have come from.

#### 50.2 Tagging of Wreckage Pieces

- a) All large and small wreckage items recovered from the sea that are identifiable and considered significant should be tagged for reference. The tag should carry a reference number and the following information:
  - 1. Location where the wreckage piece was found
  - 2. Date/time of the recovery
  - 3. The recovery team involved
- b) If necessary, color-coded tags may be used to readily identify the different zones of the debris field from which the items have been recovered. For example, the debris



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fields may be divided into the Red, Green and Yellow Zones and red, green and yellow tags are then used respectively for the items recovered from these zones.

- c) Tags are usually attached to the items promptly upon recovery and before the items are transported to the shore or storage area. Nevertheless, items found and brought in by other parties (e.g. volunteers) may not carry any tags.

### 50.3 Logging Into a Debris Database

- a) After the specialists of the data management team has examined the items and identified the portions of the aircraft where they have come from, the items are assigned a log number for input into a debris database together with any other details and sketches or photographs. The log number is written on the wreckage piece itself and on a separate tag that is to be attached to the piece.
- b) It is possible that one tagged item may spawn many more log numbered items. For example, during salvage and reconstruction efforts it may occasionally become necessary to cut or separate objects (previously tagged as a whole) into more than one piece; some objects may have been extracted from an entangled group of debris (recovered and tagged as a unit); pieces may have been received in a bag, net or box full of other items with one tag assigned to the container; or some parts may have broken during handling and transport. In all of these situations, the recovery position information on the original tag must be transferred to the log numbered tags assigned to the separated objects
- c) For easier referencing, a classification system for the log numbers may be created. For example, the following nomenclature was used by NTSB for the TWA 800 wreckage (XX denotes the number assigned to an individual piece):

|          |  |
|----------|--|
| LF-XX    | Left fuselage                            |
| RF-XX    | Right fuselage                           |
| LW-XX    | Left wing                                |
| RW-XX    | Right wing                               |
| H-XX     | Horizontal stabilizer (both sides)       |
| LE-XX    | Left elevator                            |
| RE-XX    | Right elevator                           |
| V-XX     | Vertical stabilizer                      |
| R-XX     | Rudder                                   |
| CW-1XX   | Wing center section - upper skin         |
| CW-2XX   | Wing center section - lower skin         |
| CWS-10XX | Wing center section - rear spar          |
| CWS-11XX | Wing center section - butt line zero rib |
| FBM-XX   | Floor beam                               |



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LG-XX            Landing gear

### 51. CABIN SAFETY INVESTIGATION

- a) To assist investigators in investigating cabin safety related accidents and incidents, the following guidelines are attached for reference.
  - 1. Checklist for documenting cabin condition (Please refer to Section 57)
  - 2. Checklist for information to be gathered from cabin crew (Please refer to Section 57)
  - 3. Checklist for information to be gathered from passengers (Please refer to Section 57)
- b) The information gathered may be used in conjunction with the information gathered by other investigation groups (medical, human factors and operations) to determine the cause of the injuries and the survival aspects of the accidents and incidents, as well as to develop related recommendations.

### 52. CHECKLIST FOR DOCUMENTING CABIN CONDITION

#### 52.1 General Information

- a) Weather conditions
- b) Engineering drawing of interior that depicts seat layout, seat pitch galleys, lavatories and emergency exit(s)

#### 52.2 Damage to Cabin Interior

- a) Document overall condition of cabin (e.g. intact, broken apart, fire damaged).
- b) Location of debris such as galley equipment, seats, luggage and areas with indication of fire or smoke damage.
- c) Use photographs to supplement written report.

#### 52.3 Cabin Crew and Passenger Seats

- a) Manufacturer, model number, serial number, date of manufacture and rated loads.
- b) Evidence of impact.
- c) Description of the integrity of tie-downs and rails.
- d) Measurement and description of the deformation/separation of seats and tie-downs.
- e) Location of child restraint system (CRS), seat-loaded cargo, stretchers and bassinets.

#### 52.4 Seat Belts and Shoulder Harnesses



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- a) Seat belt manufacturer, model number, serial number, date of manufacture and rated loads.
- b) Condition of seat belts and seat belt extensions (e.g. damaged, detached, intact and cut).

#### 52.5 Stowage Compartments

- a) Describe damage to storage areas, such as overhead bins, closets and compartments.
- b) Condition of latching mechanisms for storage areas.

#### 52.6 Carry-on Luggage

Location of carry-on luggage found in cabin (e.g. overhead bins, under seat storage, closets and piled near exits)

#### 52.7 Communication

- a) Conduct functional check of the PA system.
- b) Conduct functional check of the interphone system.
- c) Describe the positions of switches for emergency evacuation alarm systems (cockpit and cabin).
- d) Describe the positions of switches for the emergency lighting systems (cockpit and cabin).
- e) Describe the content of the pre-departure safety briefing and how the information is conveyed to passengers (PA system, recording, or video demonstration).
- f) In what language(s) was the briefing conducted?
- g) Describe the airline's procedures for exit row briefing.

#### 52.8 Exits

- a) Describe the location of all exits (cockpit and cabin). Were they open or closed?
- b) Describe the location of emergency exit hatches.
- c) Describe the deployment of ropes, tapes or inertia reels.
- d) Describe the damage to exit and surrounding fuselage.
- e) Describe the position of arm/disarm lever or girt bar.
- f) Describe the position of exit opening handle.
- g) Describe the condition of power-assist device (record pressure, if appropriate).
- h) Describe the assist space available at exit.
- i) Measure the height of the exit sills above the terrain if the aircraft has an unusual attitude.

#### 52.9 Evacuation Slides and/or Slide/Rafts



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- a) Position of the device (deployed, stowed, inflated, deflated, removed from aircraft).
- b) Name of manufacturer, date of manufacture, model number, serial number, Technical Standard Order (TSO) number, and date of last overhaul.
- c) Describe any damage to the slide.

### 52.10 Emergency Equipment

- a) Using a cabin crew manual as a guide, document the location and condition of emergency equipment in the cabin:
  1. Flashlights
  2. Megaphones
  3. Fire extinguishers
  4. Protective breathing equipment (PBE)
  5. Crash axe/pry bar
  6. Portable oxygen bottles
  7. First aid kits
  8. Medical kits
  9. Defibrillator
  10. Emergency location transmitters (ELT)
  11. Protective gloves
  12. Smoke barriers
  13. Smoke detectors
  14. Lavatory waste bin automatic extinguishers
  15. Emergency lights
  16. Floor proximity lighting system

### 52.11 Accidents Involving Water Contact

- a) Document the condition and location of:
  1. Life rafts or slide/rafts
  2. Life vests
  3. ELT
  4. Water conditions at time of accident (wave height, swell height and temperature)
  5. Survival kits

## 53. CHECKLIST OF INFORMATION TO BE GATHERED FROM CABIN CREW





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### 53.1 General Information

- a) Weather conditions
- b) List of cabin crew members
- c) Passenger manifest with names and seat assignments of occupants (including lap-held infants)
- d) Cabin crew member manual (used to determine emergency procedures, cabin layout and emergency equipment location)
- e) Cabin crew member training records (initial, transition and recurrent)
- f) Safety briefing card
- g) Engineering drawing of interior that depicts seat layout, seat pitch galleys, lavatories and emergency exit(s)

### 53.2 Cabin Crew Member

- a) Name, business address and phone number
- b) Gender, age, height and weight
- c) Operational experience on the accident aircraft type in hours or years
- d) Work category-cabin crew member, purser, lead crew member, etc.
- e) Number of different aircraft types/models that the cabin crew member is qualified on
- f) Medical history and medication taken at the time of the event
- g) Current medical condition and medication taken at time of the interview
- h) Experience as a cabin crew member (in years) with current carrier/previous carrier
- i) Flight and duty schedule 72 hours prior to the event
- j) Food and beverage consumed during the 24 hours period before the occurrence
- k) Sleep/wake cycle for the 7 day period before the occurrence
- l) Travelling time to airport
- m) Were you injured? Describe your injuries. When and how were you injured?

### 53.3 Pre-Flight/In-Flight Activities

- a) Describe the pre-flight crew briefing. What was covered? Who are present? Who conducted the briefing?
- b) Describe any cabin system(s) that was unserviceable at the beginning of, or during the flight?
- c) Describe observations of, or interaction with, maintenance, ground service personnel and flight crew that may be pertinent to the investigation.
- d) Describe the location of passengers with special needs/children travelling alone.
- e) Describe the location of infant/child restraint system(s).
- f) Describe the location of passengers with disabilities.
- g) Describe the passenger safety briefing. Were passengers attentive to the briefing?





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- h) Describe the amount and stowage of carry-on baggage.
- i) Describe your pre-departure cabin activities.
- j) Was alcohol served before/during the flight? If yes, approximately how many drinks did you serve?
- k) When did you prepare your emergency exit(s) for departure?
- l) Where were you seated for take-off and landing?
- m) Describe the type of seat restraint system used at your jump-seat.

### 53.4 Occurrence Information

- a) Describe if and how you were informed of a problem. If briefed by the Captain, what information were you given? If briefed by another crew member, what information were you given?
- b) Describe your location during occurrence.
- c) Describe if and how the passengers were informed of a problem? What was their reaction?
- d) Describe the pre-occurrence preparations (i.e. type of warning, cabin preparation).
- e) Describe the occurrence.
- f) Describe the impact.
- g) Describe the emergency commands you used, if any.
- h) Describe the passenger reaction to your commands.
- i) Describe the passenger's brace positions.
- j) Describe your brace position.
- k) Describe the security of cabin furnishings in your area.
- l) Describe any difficulties you may have had with your seat/seatbelt/shoulder harness.
- m) Describe any safety or emergency equipment you used. Why and how did you use it? Was it effective?
- n) Describe your view of the cabin. If your view was obstructed, please explain.

### 53.5 Evacuation

- a) How did you decide to evacuate?
  - 1. Captain's order?
  - 2. Personal judgment?
  - 3. Evacuation alarm?
  - 4. PA announcement?
  - 5. Firefighter's order?
- b) Describe the evacuation.



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- c) Which exit(s) did you open?
- d) What was your assigned exit(s)?
- e) If you did not open an exit, explain why.
- f) Did you have a direct view of your primary/secondary exits from your jump-seat?
- g) Did you assess the conditions? How?
- h) Were there any difficulties assessing outside conditions? Opening the exit? Deploying or inflating the evacuation slide? If yes, please describe
- i) Did the emergency lights operate? Which emergency lights did you observe?
- j) Describe the illumination inside/outside the aircraft.
- k) Describe passenger reactions during the evacuation (calm, panic, etc.).
- l) Did the passengers attempt to take carry-on baggage during the evacuation?
- m) Did you have passengers' assistance at your exit? How did the passengers assist?
- n) Describe any problems with the passengers during the evacuation.
- o) Describe any difficulties with passengers with special needs or children travelling alone.
- p) Approximately how long did the evacuation take? What is the estimate based on? (Note: Time estimates may be unreliable)
- q) Did you see other cabin crew members evacuate the aircraft? Which exits did they use?
- r) Did you take emergency equipment with you? Which equipment? How was it used?
- s) Describe the flight deck crew activities outside the aircraft.
- t) Describe the rescue/fire fighting activities.
- u) Were you injured? Describe your injuries and how they were sustained.
- v) Were you transported to a hospital or medical facility?
- w) Approximately how long did the rescue efforts take?
- x) Describe your clothing and its suitability for the evacuation.

### 53.6 Training

- a) Describe your initial and annual emergency/safety training.
- b) Did your training include basic instructions in aerodynamics and aircraft performance?
- c) When was your last evacuation drill? Describe the drill. How often is the drill conducted?
- d) When was your last door drill? Describe the drill. How often is the drill conducted?
- e) Describe your firefighting training.
- f) Describe your initial and annual ditching training.
- g) Do you participate in a wet ditching drill? Describe the drill.
- h) Describe your practical training with respect to the use of emergency/safety equipment.
- i) Did you participate in crew resource management training with pilots or other members of your company? Explain.
- j) Did your training prepare you for what happened?



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53.7 Turbulence

- a) Describe your company's crew communication procedures for turbulence.
- b) Describe the crew communication procedure used in this event.
- c) Were you warned before you experienced the turbulence? How?
- d) Was the seatbelt sign on? If yes, for how long?
- e) Were passengers seated when the seat belt sign was on?
- f) Were you seated at your cabin crew member assigned seat? If you were not seated, why not?
- g) Where were you when the turbulence occurred?
- h) What announcement was made regarding the turbulence? Were passengers instructed to remain seated? When were the announcements made?
- i) Were there problems with stowing equipment before or after the turbulence event?
- j) Were you injured? Describe your injuries. Were you able to assist others following the turbulence?
- k) Describe injuries that you observed in other crew members or passengers.

53.8 Smoke/Fire/Fumes

- a) When did you become aware of smoke fire, or fumes?
- b) Where did you first observe smoke or fire? Describe what you saw and/or smelled (color, density and odor)
- c) Where were you when you first became aware of fumes?
- d) Did the conditions increase, decrease or change during the occurrence?
- e) Did you have difficulty breathing? Did you use PBE or other protection?
- f) Did you have problems communicating with other crew members or passengers? If yes, describe the problems
- g) Did you use fire-fighting equipment? Describe.

53.9 Ditching/Inadvertent Water Landing

- a) Were there any problem deploying, inflating or boarding the slide/rafts or life rafts?
- b) Did you move a slide/raft or life raft from one location to another? Describe any difficulties
- c) What type of personal flotation device did you use? From where did you obtain it?
- d) Did you have any problems obtaining it or using it?
- e) What personal flotation devices did passengers use?
- f) Did passengers have any problems obtaining or donning their life preservers? (adults/infants/children)
- g) Who commanded the lift raft or slide/raft that you boarded? Were there other crew members in that raft?
- h) Describe the rescue operation.



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- i) Describe sea survival procedures that were used.
- j) Did you retrieve an ELT? If yes, from where? Was the ELT used?

### 53.10 Additional Comments

- a) Based on your experience, can you suggest any improvements to procedures or equipment?
- b) Do you have any further information that you think you may assist in the investigation of this occurrence?
- c) Do you know of any passengers who would like to or could provide information?

## 54. CHECKLIST OF INFORMATION TO BE GATHERED FROM PASSENGERS

### 54.1 Personal Data

- a) Name, gender, age, height and weight
- b) Address
- c) Phone number
- d) Occupation
- e) Seat number and location
- f) Aviation experience
- g) Any disability that could impair egress from the aircraft
- h) Languages spoken
- i) Were you injured? Describe your injuries. When and how were you injured?

### 54.2 Pre-Flight Preparations

- a) Describe the weight, size and stowage of your carry-on baggage.
- b) Describe the clothing and footwear that you were wearing when the accident occurred.
- c) Was there a pre-departure safety briefing? How was it provided (i.e. pilot, cabin crew member, video or other means)? Did you understand the safety briefing?
- d) Did you read the safety card?
- e) Did you understand the information on the safety card?
- f) Did you note the locations of more than one exit near your seat?
- g) Were you seated adjacent to an emergency exit?
- h) Were you briefed prior to departure on the operation of the exit? If yes, by whom?
- i) Describe the observations of maintenance, ground service personnel (de-icing) or flight crew that might be pertinent to the investigation.

### 54.3 Occurrence Information



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- a) How and when did you first become aware of a problem? Where were you when you first became aware of a problem?
- b) How did the crew prepare you for the emergency? Were you given instructions over the PA system? By an individual crew member? Shouted instructions?
- c) Did you hear any shouted commands? If yes, what did you hear? Did the information help you?
- d) Did you brace for impact? Describe your brace position.
- e) Were you travelling with infants/children? How were they restrained? Were there any problems?
- f) How tightly was your seat belt fastened? Did you have any problems releasing your seat belt? If yes, describe them
- g) Did you remove your shoes? Why? If you did not remove them, did they stay on during the impact and evacuation?
- h) Describe the impact sequence. What happened to you during the impact sequence?
- i) Did anything happen to your seat during impact?
- j) Did you remain seated until the aircraft stopped?

54.4 Evacuation

- a) Which exit did you use? Why?
- b) Did you encounter problems reaching your exit? If yes, describe.
- c) Did you attempt to take anything with you when you left the aircraft? If yes, what did you take?
- d) Did you assist anyone during the evacuation?
- e) Did anyone assist you?
- f) Did you open an exit? If so, which one? Did you experience difficulty operating or using the exit?
- g) Did you notice any lights on in the cabin? Where?
- h) Approximately how long did it take you to evacuate the aircraft? What is your estimate based on?
- i) What did you see when you got out of the aircraft?
- j) Did help arrive quickly? Describe the rescue efforts.
- k) Did a rescuer assist you? How?
- l) Did you sustain any injury? If yes, please describe your injury and, if known, its causes.

54.5 Turbulence

- a) Where were you when the turbulence occurred?
- b) Was your seat belt fastened? If not, why not?
- c) Was the seat belt sign on?
- d) Did you hear any announcement regarding seat belts? If yes, describe what you heard.



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- e) Who do you think made the announcement(s)? Flight deck crew and/or cabin crew members(s)?
- f) Were you injured? Describe your injuries. Were you given first aid by a cabin crew member or passenger?
- g) If you were travelling with an infant/child, what happened to the infant/child? How were they restrained?

54.6 Smoke/Fire/Fumes

- a) When did you become aware of smoke, fire, or fumes?
- b) Where did you first observe smoke or fire? Describe what you saw and smelled (color, density, odor)
- c) Where were you when you first became aware of fumes?
- d) Did the conditions increase, decrease or change during the occurrence?
- e) Did you have difficulty breathing? If yes, what action did you take to protect yourself?
- f) Did you observe fire-fighting procedures? Describe.

54.7 Ditching/Inadvertent Water Contact

- a) What types of flotation devices were available?
- b) Did you obtain a life preserver?
- c) Where was it stored?
- d) Did you have a problem retrieving it?
- e) Did you put it on?
- f) When did you inflate it?
- g) Did it work properly?
- h) If you were travelling with an infant or child, was a life preserve provided for the child?
- i) Did you use the seat bottom cushion as a flotation device? Describe how the cushion was used and its effectiveness.
- j) Did you board a life raft or slide/raft
- k) Were there any difficulties?
- l) Describe the type of raft you boarded.
- m) What equipment in the life raft (slide/raft) was used?
- n) How many people were in the life raft?
- o) Describe the water conditions.
- p) Describe any sea survival procedures that were used.
- q) Describe the weather conditions.
- r) Describe the rescue effort.

54.8 Additional Comments





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- a) Based on your experience, can you suggest any improvements to procedures or equipment?
- b) Do you have any further information that you think may assist in the investigation of this occurrence?

### 54.9 Others

- a) Reports of follow-up component tests
- b) Photographs
- c) Written statements

## 55. OCCURRENCES INVOLVING UNLAWFUL INTERFERENCE

- a) If, in the course of an investigation into an accident or incident, it becomes known or is suspected that an act of unlawful interference was involved, the investigator-in-charge shall, after consultation with the Investigator in Charge (IIC) and the AAIG-BD, immediately inform the Police or take steps to ensure that the aviation security authorities of other States concerned are informed.
- b) Unless otherwise directed, the IIC will continue his technical investigation in parallel with any security investigations that may be initiated by the relevant authorities. This is because there may still be other issues than security to be looked into by the IIC and in respect of which safety lessons can be drawn.

## 56. PROVISION OF INFORMATION TO ACCIDENT VICTIMS AND THEIR FAMILIES

- a) The provision of family assistance should be separate from the accident investigation. The investigator-in-charge (IIC) must remain focused on the investigation of the accident.
- b) However, the IIC should bear in mind that the AAIT has a responsibility to provide relevant and timely information to the families of the victims and the accident survivors. The IIC should be aware of the concerns of the families and survivors and anticipate the need to provide, through the appropriate channels (e.g. public relations, airlines, Police), information to the families and survivors on issues of immediate concern, such as the release of personal effects held as part of the investigation, and progress on the investigation.
- c) If any personal effects need to be retained by the investigators for aircraft accident investigation purposes, the investigators shall coordinate with the party concerned (the protection of personal effects is usually the responsibility of the aircraft operator concerned in conjunction with the Police).
- d) The IIC may also need to facilitate visits through the appropriate channels to the accident site by the families of the victims. However, it shall be noted that there will be occasions





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when visits to the accident site are impractical for accessibility reason. Visits to the site may also be restricted by the Police.

- e) During visits to the accident site by the families of the victims, whether the investigators will be required to brief the families will have to be coordinated in advance. In the longer term, the investigators may also need to provide the families and the survivors through the appropriate channels from time to time with updates on the progress of the investigation. The investigators shall be circumspect as to the information to be given to the families.
- f) Some families and survivors may consider that they should be entitled to listen to the cockpit voice recording and to have access to a transcript of the cockpit voice recording. Such requests shall not be acceded to as disclosure of cockpit voice recordings and transcripts is contrary to the international Standards in Annex 13 and to the provisions in the Air Navigation (Investigation of Accidents and Incidents) Order.
- g) To shield the IIC from a large number of direct inquiries, the IIC should if necessary arrange for an officer to be the liaison person for such inquiries.
- h) The expectation of the accident victims or their families (e.g. dissemination of timely information) should be borne when communicating with them. The following actions may also have to be considered:
  - 1. To remind accident victims and their families that an investigation results in safety recommendations based on the causes, contributing factors and conclusions of the investigation, and that these safety recommendations are aimed at preventing a repetition of such a tragedy, not at determining any blame or liability.
  - 2. To reassure accident victims and their families that neither political bias nor cultural orientation nor economic considerations will affect the conclusions of the investigation.

### 57. PUBLIC RELATIONS

- a) Public relations will be handled by the MOT Corporate Communications Section. The AAIT and the investigator-in-charge (IIC) will support the information needs of the MOT Corporate Communications Section.
- b) When the Crisis Management Directorate (CMD) is in operation following a major occurrence, the AAIT and the investigator-in-charge will support the public relations activity of the CMD through the MOT Corporate Communications Section.

#### 57.1 Release of Information



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- a) Examples of information that may be needed/considered for release to the public are:

1. Initial (field investigation) phase

a. Brief description of the accident

- Aircraft's flight number, nationality and registration marks
- History of the flight
- Weather condition at the time of the accident, etc.

- b. Nature of the injuries sustained by the persons on board (especially the flight and cabin crew members)
- c. Damage sustained by the aircraft and other properties
- d. Completion of search and rescue operation
- e. Whether the CVR and FDR have been recovered
- f. Arrangement for the reading out of the CVR/FDR
- g. Size of the accident site
- h. Securing of the accident site
- i. Distribution of wreckage and debris pieces
- j. Aircraft's airworthiness
- k. Name of the investigator-in-charge appointed by the Investigator in Charges of Accidents
- l. Participants of the investigation team (number, nationality, agencies/ organizations/companies)
- m. Organization of the investigation team
- n. Progress of the investigation
- o. Updated factual information

### 57.2 Analysis phase

- a) Progress of the investigation
- b) Safety recommendations being contemplated
- c) Important milestones of investigation (e.g. follow-up meetings in particular areas of investigation)

### 57.3 Final Phase



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- a) Release of Final Report
- b) Safety recommendations made

### 57.4 Handling of Media by The AAIG-BD/AAIT

- a) As far as possible, all media enquiries received should be re-directed to the MOT Corporate Communications Section.
- b) If making a statement by the AAIT is unavoidable, this should be made only by the investigator-in-charge or the Investigator in Charge.
- c) In making a statement, NEVER say "No comment" and NEVER speculate. The following types of statement may be judiciously used, as applicable:
  - ) "We are currently in the data gathering stage."
  - ) "We are investigating all aspects."
  - ) "We will look into all the areas, for example, aircraft maintenance, flight operations, air traffic control, airport operations, weather, ..."
  - ) "We would like to appeal for eyewitnesses to come forward."
  - ) "I am sorry I cannot comment at this stage on whether ..."

### 57.5 Visit of Accident Site

From time to time, there may be requests for visit of the accident site by the media. Such requests will be coordinated by the MOT Corporate Communications Section. The IIC will facilitate such requests. Where necessary, the IIC will specify a safety distance from the aircraft wreckage or debris.

### 57.6 Public Notification of Investigation

There may be times when information pertaining to the circumstances of a accident or incident needs to be sought from members of the public. A public notice that an investigation is taking place and to invite input from members of the public should be considered. Issuing of public notice of investigation is provided for in paragraphs 8(8) and (9) of the Air Navigation (Investigation of Accidents and Incidents).

## 58. SAMPLE PUBLIC NOTICE OF CIVIL AIRCRAFT ACCIDENT INVESTIGATION



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Notice is hereby given, pursuant to Civil Aviation Ordinance 1960, Part XIII of CAR '84 and Rule 3 (a) of CAR '84, that an investigation under the said Order is taking place into the circumstances and causes of the accident to [aircraft type/ model], [registration number], which occurred [at/near \_\_\_\_\_] on [date].

Members of the public who have information which they believe may relate to the circumstances, causes or contributing factors of the accident are invited to write as soon as possible and preferably by [date] to:

Head of AAIG-BD/Investigator in Charge (IIC)  
Aircraft Accident Investigation Group of Bangladesh  
Civil Aviation Authority  
Headquarters, Kurmitola, Dhaka-1229  
Bangladesh

Dated this \_\_\_ day of \_\_\_\_\_ 20XX.

59. AIDE-MEMOIRE FOR INVESTIGATOR-IN-CHARGE

The aide-mémoire below serves to assist the investigator-in-charge (IIC) in ensuring that the key tasks are not overlooked during the hectic moments following a major occurrence. This aide-mémoire is not exhaustive and is not intended to be a detailed checklist of things-to-do, but a reminder of the major tasks.

- a) Notification to other States and ICAO
- b) Security of site
- c) Setting up the Accident Investigation Command Centre (AICC)
- d) Liaise with the rescue force commander
- e) Survey of accident site for biological hazards
- f) Gathering basic information about the occurrence as soon as possible
- g) Linking up with accredited representatives
- h) Getting the investigation groups organized
- i) Investigation meetings and periodic briefing and debriefing of the investigation team



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- j) Recovery of CVR/FDR/QAR
- k) Medical examination of crew members
- l) Interview of crew members
- m) Deploying an aero-medically trained investigators to liaise with the coroner
- n) Activation of sea salvage company (e.g. SMIT, SEMCO) (for sea salvage)
- o) Keep abreast of activities of the investigation groups and their findings
- p) Updating the Investigator in Charge, the AICC and the Crisis Management Directorate
- q) Assistance to victims and their families
- r) Issuance of safety recommendations, if applicable
- s) Preparation and issue of Preliminary Report (ADREP P) within 30 days

60. COORDINATION WITH CRISIS MANAGEMENT TEAM

- a) For aircraft accidents of a more serious nature (e.g. involving fatalities), the AAIG-BD may set up a Crisis Management Group (CMG). The CMG will be located at the AAIG-BD Office located at CAAB Headquarters, Kurmitola, Dhaka-1229. The Head of AAIG-BD or his delegated person will assume the role of Crisis Manager. The Crisis Manager will keep Chairman CAAB informed at all times on the role and actions performed by the Crisis Manager.
- b) If advised by Chairman and/or MOCAT, the AAIG-BD may also set up a Transport Crisis Management Group (TCMG) with an Advisor appointed from the MOCAT.
- c) The CMG will have the following groups:
  - 1. Coordination Group
  - 2. Information Management Group
  - 3. Accident Investigation Group
  - 4. Service Support Team
- d) The Accident Investigation Command Centre (AICC) will serve as the investigator-in-charge's (IIC) link with the CMG. The AAIG-BD should liaise and coordinate with CMG's Accident Investigation Group on exchanges of accident information.

61. COORDINATION WITH CRISIS MANAGEMENT TEAM - FREQUENTLY ASKED QUESTIONS



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- a) The investigators should be aware of the questions that may be asked arising from an accident. Such questions provide a guide as to the facts that they can help gather for the purpose of dealing with the public or releasing information on the accident. The following is a list of possible FAQs.
- b) First 10 key questions (after confirmation of the accident):
1. Which airline does the aircraft belong to? What was the flight number? What was the aircraft type? Age of the aircraft?
  2. What time did the accident occur?
  3. Where did the aircraft crash (exact location)? Could the exact position of the crash site be pin-pointed on a map? How deep is the water (for sea crash)?
  4. Where was the aircraft heading?
  5. What was the problem with the aircraft before the accident?
  6. What was the number of passengers on board (POB)? Passengers' manifest? Breakdown of crew and passengers? Breakdown of passengers according to nationalities?
  7. What is the number of fatalities? How many people survived?
  8. Have the black boxes been found?
  9. How was the weather condition at the time of the accident?
  10. What was the cause of the accident?
- c) Other possible questions:
11. Was the aircraft intact or broken into pieces?
  12. Details of the pilots (e.g. age, experience, flying hours that they have clocked, medical status, etc.
  13. What hospitals were the casualties sent to?
  14. Were there any VIPs on board?



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14. Was the aircraft carrying any dangerous goods?
15. Were there any radioactive substance on board?
16. Did the pilot alert the control tower before the accident?
17. When did the first rescue vehicle respond? When did the first ambulance arrive?
18. What equipment were used in the rescue operations?
19. What other agencies were involved in the rescue operations?
20. How many men were deployed for the rescue operations?
21. Who heads the rescue operations?
22. When was the last time the aircraft was checked? Results of the check available?
23. Is the AAIG-BD visiting the accident site?
24. Can the press visit the accident site?
25. A description of the damages to the aircraft.
26. Have the next-of-kins or relatives been notified? How can they get in touch with the airlines?
27. How is the aircraft being removed from the accident site?
28. When will the airport be reopened?

62. CUSTODY OF AIRCRAFT AND WRECKAGE - ACCESS TO AND REMOVAL OF AIRCRAFT

62.1 Custody of Aircraft and Wreckage

When an accident or serious incident has occurred, the aircraft, its parts, aircraft wreckage, or any contents of the aircraft will come under the custody of the AAIG-BD followed by the AAIT.

62.2 Requests from other States





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If a request is received from the State of Registry, the State of the Operator, the State of Design or the State of Manufacture that the aircraft, its contents, or any other evidence remain undisturbed pending inspection by an accredited representative of the requesting State, the IIC shall take all necessary steps to comply with the request, so far as this is reasonably practical and compatible with the proper conduct of the investigation, provided that the aircraft may be removed to the necessary extent as indicated in paragraph 67.3 below and provided that it does not result in undue delay in returning the aircraft to service where this is practicable.

### 62.3 Access to Aircraft

- a) No person other than the Investigator in Charge, the AAIT investigator-in-charge, the AAIT investigators and Investigators or an authorized person shall have access to the aircraft involved in the accident or serious incident, the contents thereof or the site of the accident or serious incident.
- b) No person shall move or interfere with the aircraft, its contents or the site of the accident or serious incident except under the authority of the Investigator in Charge, the Deputy Investigator in Charge (IIC) or the investigator-in-charge.

Note: "authorized person" means:

1. any person authorized by the Investigator in Charge or the investigator-in-charge either generally or specifically to have access to any aircraft involved in an accident or a serious incident and includes any police officer or any officer of customs; and
  2. in relation to an accident involving a military aircraft belonging to the Bangladesh Armed Forces, includes any person authorized by the Chief of Air Force.
- c) Nevertheless, the aircraft involved in an accident or a serious incident may be removed or interfered with to such extent as may be necessary for all or any of the following purposes:
1. extricating persons or animals;
  2. removing any mail, valuables or dangerous goods carried by the aircraft;
  3. preventing destruction by fire or other cause;
  4. preventing any danger or obstruction to the public, air navigation or to other transport;



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Note: If the aircraft is wrecked in water, the aircraft or any contents thereof may be removed to such extent as may be necessary for bringing the aircraft or its contents to a place of safety.

#### 62.4 Removal of Aircraft

- a) If the aircraft involved in the accident or serious incident is likely to be a danger or obstruction to the public, air navigation or to other transport, the Investigator in Charge or the investigator-in-charge (IIC) may order the owner, operator or hirer of such aircraft to remove it to such place as the Investigator in Charge or the IIC shall indicate.
- b) In the absence of the owner, operator or hirer or when the owner, operator and hirer fail to comply with the order by the Investigator in Charge (IIC) or the IIC to remove the aircraft, the Investigator in Charge or the IIC shall be empowered to remove or cause the removal of the aircraft. The Investigator in Charge or the IIC will not be liable for any damage occurring to the aircraft during its removal.

Note: The removal of aircraft after an accident or incident at the airport will usually be handled by the respective Airport Group.

#### 62.5 Preservation of Evidence

If there is a need to move the aircraft or pieces of the wreckage to another location before the completion of the field investigation, every effort to photograph the aircraft or wreckage should be made prior to disturbing the items.

Note: The moving of aircraft after an accident or incident at the airport to another location for continuation of the field investigation will usually be handled by the respective Airport Group, with the AAIT providing direction.

#### 62.6 Continued Retention of Parts by the AAIT

If any wreckage parts or aircraft equipment need to be removed from site and retained under the AAIT's custody, the owners of the parts or equipment should be informed and proper records should be kept.

#### 62.7 Examination of Aircraft and Wreckage by other Investigating Authorities

- a) Other investigating authorities in Bangladesh (e.g. Coroner, Police, CAAB) may also need to examine the aircraft and wreckage for their own investigation purposes. The AAIT will facilitate such examinations.



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- b) If such an investigating authority needs to possess any part for its investigation, the AAIT will facilitate the “loaning” of the part. The authority shall be accountable for the safekeeping and condition of the part and shall return to the AAIT as soon as possible. Appropriate “loan” agreement shall be executed and proper records and photographic evidence shall be kept.

63. CUSTODY OF AIRCRAFT AND WRECKAGE - REMOVAL OF GOODS AND PASSENGER BAGGAGE

63.1 Authorization for the Removal of Goods and Passenger Baggage

No person shall remove any goods or passenger baggage from the aircraft involved in an accident or serious incident in Bangladesh, or to release any goods or passenger baggage from the custody of the Investigator in Charge (IIC) or the AAIG-BD without the concurrence of the Investigator in Charge or the IIC.

63.2 Supervision and Clearance for the Removal and Customs Clearance of Goods and Passenger Baggage

- a) Even when the Investigator in Charge or the IIC has authorized the removal of goods and passenger baggage, the removal of goods or passenger baggage will still be subject to the supervision of a police officer not below the rank of Investigator of police.
- b) Furthermore, the release of goods or passenger baggage from the custody of the Investigator in Charge or the IIC will still be subject to clearance by or with the consent of an officer of customs, if the aircraft has come from a place outside Bangladesh.
- c) After the Investigator in Charge or the IIC has given the necessary authorisation, it shall be the responsibility of the airline concerned to arrange with the Police and the ICA/Customs Department for the removal and customs clearance of goods and passenger baggage, etc. The IIC shall, if necessary, remind the airline concerned.

64. CUSTODY OF AIRCRAFT AND WRECKAGE -RELEASE OF AIRCRAFT AND WRECKAGE FROM AAIT’S CUSTODY

- a) If the retention of the aircraft involved in an accident or incident, parts of the aircraft or aircraft wreckage, or any contents of the aircraft is no longer necessary for the purposes of



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an investigation, the Investigator in Charge (IIC) shall release custody of the aircraft, parts, wreckage or contents.

- b) The aircraft, parts of the aircraft or aircraft wreckage, or any contents of the aircraft may be released to the following person or persons:
  - 1. If the aircraft is a Bangladesh aircraft,
    - a. the owner of the aircraft, parts, wreckage or contents;
    - b. where the owner is dead, his personal representative; or
    - c. a person authorized in writing by the owner or his personal representative to take custody on his behalf;
  - 2. In any other case, to the person or persons designated by the State of Registry or the State of the Operator, as the case may be.
- c) To enable the person or persons concerned to take possession of the aircraft or aircraft wreckage, etc., the AAIT will facilitate access by such person or persons to the aircraft or aircraft wreckage, etc. If the aircraft or aircraft wreckage, etc., lies in an area for which it is impractical for such person or persons to be granted access, the AAIT will facilitate the removal of the aircraft or aircraft wreckage, etc., to a point where access can be given.
- d) When releasing the aircraft or aircraft wreckage, etc., to the designated person or persons, a record shall be kept of the items released; and the recipients of the items shall be asked to acknowledge receipt by signing on the relevant record.
- e) If a person to whom custody of the aircraft, parts, wreckage or contents is to be released refuses to take custody thereof or fails to take custody within a reasonable period, the aircraft, parts, wreckage or contents may be disposed of in such manner as the Investigator in Charge deems fit.

## 65. INVESTIGATION REPORT - PRELIMINARY REPORT

### 65.1 Issue of Preliminary Report



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- a) Basic factual and circumstantial information on an accident is usually available within the first two to four weeks of the investigation. A Preliminary Report using the ECCAIRS software shall be compiled for reporting such preliminary information to the ICAO.
- b) The investigator-in-charge (IIC) shall, unless an Accident Data Report has already been sent, send the Preliminary Report within 30 days of the accident, to the ICAO States identified in paragraph 2.1 below if the accident involved:

1. aircraft of a maximum certificated take-off mass of more than 2,250 kg; or
2. aircraft of a maximum certificated take-off mass of 2,250 kg or less and when airworthiness or matters considered to be of interest to other ICAO States are involved.

Note: If an accident investigation can be completed and the Accident Data Report can be compiled within 30 days of the date of the accident, there is no need to send a Preliminary Report. In such cases, besides sending the Accident Data Report to the ICAO, the AAIG-BD shall also send the Accident Data Report to the ICAO States which normally would have received the Preliminary Report.

- c) Preliminary Reports are not required to be completed for incidents.

#### 65.2 Dissemination of Preliminary Report

The Preliminary Report shall be sent to the following parties:

1. State that instituted the investigation
2. State of Registry
3. State of Occurrence
4. State of the Operator
5. State of Design
6. State of Manufacture
7. Any State that have provided relevant information, significant facilities or experts
8. ICAO (email address: ADREP@icao.int), only in the case where the aircraft is of a maximum certificated take-off mass of more than 2,250 kg

#### 65.3 Means of Dispatch

- a) The Preliminary Report may be sent by fax, e-mail or airmail.



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- b) When matters directly affecting safety are involved, the Preliminary Report shall be sent as soon as the information is available and by the most suitable and quickest means possible.

65.4 Use of ECCAIRS

- a) ICAO is recommending the use of the European Coordination Centre for Aviation Incident Reporting System (ECCAIRS) software package for the reporting of occurrences. The ECCAIRS reporting system is based on the ICAO ADREP standards, which can be used to collect, exchange, integrate and analyze aviation related accident and incident reports.
- b) The AAIG-BD will use either the ECCAIRS or ADREP or simple as attachment to e-mail send Preliminary Report to ICAO.

66. INVESTIGATION REPORT - DRAFTING OF THE FINAL REPORT

66.1 Draft Final Report

- a) The investigator-in-charge (IIC) is responsible for drafting the Final Report. He shall send a copy of the Draft Final Report to the following States as soon as possible to invite their comments on the draft Final Report:
  - 1. State that instituted the investigation
  - 2. State of Registry
  - 3. State of Occurrence
  - 4. State of the Operator
  - 5. State of Design
  - 6. State of Manufacture
  - 7. State that participated in the investigation
- b) The IIC may also send the Draft Final Report to the operator, through the State of the Operator, and to the organizations responsible for the type design and the final assembly of the aircraft, through the State of Design and the State of Manufacture, to enable the recipients to submit comments on the Draft Final Report, either through their respective States or to the IIC directly.
- c) The IIC may also send the Draft Final Report to the persons whose reputation may be affected by the investigation report or to their next-of-kin if these persons are deceased.





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- d) The IIC will give the parties mentioned in paragraphs 1.1 to 1.3 above 60 days to comment on his Draft Final Report. (Note: The length of the comment period starts on the date on which the Draft Final Report is sent out.)
- e) If comments are received from the States concerned within 60 days as requested, the IIC shall consider the comments and amend as necessary the Draft Final Report to include the substance of the comments received. If the IIC does not agree with a comment, he shall inform the State concerned, and if desired by that State, append the comment to the Final Report.
- f) If no comments are received by the deadline set by the IIC and no extension of time has been requested and agreed upon, the IIC may proceed to finalise the Final Report and submit it to the AAIG-BD.
- g) When sending out the Draft Final Report for comments, the IIC shall remind the recipients in writing that they shall not circulate, publish, disclose or give access to the Draft Final Report without his express consent. Similarly, the IIC and /or the Head of AAIG-BD will take all necessary measures to ensure that any documents obtained during an investigation will not be circulated, published, disclosed or given access to, unless such reports or documents have already been officially published or released.

66.2 Format and Contents of the Draft Final Report and Final Report

- a) The Draft Final Report and the Final Report of the investigation into an occurrence should follow the ICAO format in Section 67. The format is to facilitate the presentation of the reports in a convenient and uniform manner for easy reference by readers. However, the format may be adapted to the circumstances of the accident or incident.
- b) The detailed format of the body of the Draft Final Report or the Final Report is given in Section 68.
- c) Tips for the formulation of the statement of the causes are given in Section 69.
- d) In preparing a Final Report or a Draft Final Report according to the prescribed format, the following are to be noted:
  - 1. The Final Report and the Draft Final Report shall state that the sole objective of the investigation of an accident or incident shall be the prevention of accidents and incidents and it shall not be the purpose of this activity to apportion blame or liability.





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2. All information relevant to an understanding of the factual information, analysis and conclusions shall be included under each appropriate heading or sub-heading.
3. Where information in respect of any of the items in the "Factual information" section is not available or is irrelevant to the circumstances leading to the accident, a note to this effect should be included under the appropriate sub-headings.
4. Records listed in Annex 13 paragraph 5.12 of Annex 13 shall be included in the Draft Final Report and the Final Report only if pertinent to the analysis of the accident or incident. Parts of the records not relevant to the analysis shall not be disclosed.
5. The names of the persons involved in the accident or incident shall not be disclosed.

### 67. INVESTIGATION REPORT - OVERALL FORMAT OF THE FINAL REPORT

The overall format of the Final Report (including Draft Final Report) is as follows:

#### 67.1 TITLE

The Final Report begins with a title comprising:

1. Name of the operator
2. Manufacturer and model of the aircraft
3. Nationality and registration marks of the aircraft
4. Place and date of the accident

The following statement on the objective of the investigation as spelt out in Annex 13 shall also be incorporated:

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

#### 67.2 SYNOPSIS

Following the title is a synopsis describing briefly all relevant information regarding:



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1. Notification of accident to national and foreign authorities
2. Identification of the accident investigation authority and accredited representation
3. Organization of the investigation
4. Authority releasing the report and date of publication
5. Brief summary of the circumstances leading to the accident

### 67.3 BODY

The body of the Final Report comprises the following main headings:

- 1 Factual information
- 2 Analysis
- 3 Conclusions
- 4 Safety recommendations
- 5 Safety action

Each heading may consist of a number of sub-headings as outlined further in Section 72.

### 67. APPENDICES

Materials and any other pertinent information considered necessary for the understanding of the report will be included as appropriate.

### 68. INVESTIGATION REPORT - DETAILED FORMAT OF THE BODY OF THE FINAL REPORT

The detailed format for the body of the Final Report (including Draft Final Report) is as follows:

#### 68.1 FACTUAL INFORMATION

##### a) History of the Flight (A brief narrative giving the following information):

1. Flight number, type of operation, last point of departure, time of departure (local time or UTC), point of intended landing.
2. Flight preparation, description of the flight and events leading to the accident, including reconstruction of the significant portion of the flight path, if appropriate.
3. Location (latitude, longitude, elevation), time of the accident (local time or UTC), whether day or night.



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b) Injuries of Persons (Completion of the following, in numbers):

| Injuries   | Crew | Passengers | Others |
|------------|------|------------|--------|
| Fatal      |      |            |        |
| Serious    |      |            |        |
| Minor/None |      |            |        |

Note: Fatal injuries include all deaths determined to be a direct result of the injuries sustained in the accident.

c) Damage to Aircraft

Brief statement of the damage sustained by aircraft in the accident such as, destroyed, substantially damaged, slightly damaged, no damage etc.

d) Other Damage

Brief description of damage sustained by objects other than the aircraft.

e) Personal Information

1. Pertinent information concerning each of the flight crew members including: age, validity of licences, ratings, mandatory checks, flying experience (total and on type) and relevant information on duty time.
2. Brief statement of qualifications and experience of other crew members.
3. Pertinent information regarding other personnel, such as air traffic services, maintenance, etc., when relevant.

f) Aircraft Information

1. 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).
2. Brief statement on performance, if relevant, and whether the mass and centre of gravity were within the prescribed limits during the phase of operation related to the accident. (If not and if of any bearing on the accident give details.)
3. Type of fuel used.



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### g) Meteorological Information

1. 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.
2. Natural light conditions at the time of the accident (sunlight, moonlight, twilight, etc.).

### h) Aids to Navigation

Pertinent information on navigation aids available, including landing aids such as ILS, MLS, NDB, PAR, VOR, visual ground aids, etc., and their effectiveness at the time.

### i) Communications

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

### j) Aerodrome information

Pertinent information associated with the aerodrome, its facilities and condition, or with the take-off or landing area if other than an aerodrome.

### k) Flight recorders

Location of the flight recorder installations in the aircraft, their condition on recovery and pertinent data available therefrom.

### l) Wreckage and impact information

General information on the site of the accident and the distribution pattern of the wreckage; detected material failures or component malfunctions. Details concerning the location and state of the different pieces of the wreckage are not normally required unless it is necessary to indicate a break-up of the aircraft prior to impact. Diagrams, charts and photographs may be included in this section or attached in the appendices.

### m) Medical and Pathological Information

Brief description of the results of the investigation undertaken and pertinent data available therefrom. Medical information related to flight crew licences should be included in Personal Information.



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n) Fire

If fire occurred, information on the nature of the occurrence, and of the fire fighting equipment used and its effectiveness.

o) 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.

p) Tests and Research

Brief statements regarding the results of tests and research.

q) 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 limited to, organizational structure and functions, resources, economic status, management policies and practices, and regulatory framework.

r) Additional information

Relevant information not already included in 73.1 a) to 73.1 q).

s) Useful or Effective Investigation Techniques

When useful or effective investigation techniques have been used during the investigation, briefly indicate the reason for using these techniques and refer here to the main features as well as describe the results under the appropriate sub-headings 73.1 a) to 73.1 r).

### 68.2 ANALYSIS

Analyze, as appropriate, only the information documented in "1 Factual information" and which is relevant to the determination of conclusions and causes.



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### 68.3 CONCLUSIONS

#### a) Finding

List the findings established in the investigation. Include the following preamble before listing the findings:

Note: From the evidence available, the findings shall be made. These findings should not be read as apportioning blame or liability to any particular organization or individual.

#### b) Causes

List the causes established in the investigation. Causes are those events which alone, or in combination with others, resulted in injuries and damage. A cause is an act, omission, condition or circumstance which if eliminated or avoided would have prevented the occurrence or would have mitigated the resulting injuries or damage. The list of causes should include both the immediate and the deeper systemic causes. See Section 69 for tips on formulation of the statement of the causes.

#### c) Contributing factors.

List the contributing factors established in the investigation.

### 68.4 SAFETY RECOMMENDATIONS

State any recommendations made for the purpose of accident prevention.

### 68.5 SAFETY ACTION

Identify safety actions already implemented

## 69. INVESTIGATION REPORT - STATEMENT OF THE CAUSES

- a) There are a number of ways to present the statement of the causes. The causes may be listed chronologically or they may be prioritized in terms of primary causes and contributing



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causes. Whichever way, the causes should be presented in a logical order, bearing in mind that all causes should be presented.

- b) When we are certain of a cause, a definite statement should be used. If we are only reasonably sure of a cause, a qualifying word such as “probable” or “likely” should be used.
- c) In lieu of a statement of the causes, the causes may be expressed under another heading, such as conclusions, significant findings, significant factors, causal factors or causal findings. This approach is particularly useful when systemic causal factors were involved.
- d) When there is insufficient evidence to establish why an accident occurred, there should be no hesitation in stating that causes remain undetermined. The most likely scenario may be stated provided that a qualifier, such as “likely” or “probable”, is included. However, a list of possible causes should not be given.
- e) The causes or significant failures or contributing/significant factors should be formulated with preventive action in mind and linked to appropriate safety recommendations. They should also be formulated in such a way which minimizes as much as possible the implication of blame or liability. However, we should not refrain from reporting a cause merely because blame or liability might be inferred from the statement of that cause.

### 70. INVESTIGATION REPORT - TIMEFRAME FOR COMPLETION OF INVESTIGATION

- a) ICAO recommends that, in the interest of accident prevention, the Final Report of an investigation should be released in the shortest possible time and, if possible, within 12 months.
- b) However, it is noted from our own experience and the experience of the major investigation authorities that the 12 months timeframe for the completion of an investigation can be difficult to achieve, even if the case concerned is not complex. It may not always be possible for the investigator-in-charge (IIC) to dictate the pace of the investigation. He often has to depend on the cooperation and time availability of the parties involved. Thus, the reasons for needing more than 12 months for the investigation may include the following:
  - 1. Dependence on the parties involved to provide data, explanation, opinion, test results, feedback, inputs, etc.
  - 2. Difficulties for scheduling interviews (especially when the interviewees live overseas) and aircraft inspection (without demanding that the operator ground the aircraft just for this purpose).
  - 3. Difficulty in arranging for a time that is convenient to all the parties concerned for testing/inspection, discussion, meeting, analysis, testing, etc., especially when overseas parties are involved.





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4. Difficulty in arranging/contracting a test facility (especially one that is located overseas) to perform testing.
  5. New aircraft type/equipment/system being involved.
  6. New safety issues being unearthed (e.g. fuel icing, fuel explosion)
  7. Need for more thorough or more in-depth investigation as determined in the course of the investigation. For example, when evidence of fatigue is discovered, there would be a need to investigate into the causes of the fatigue (e.g. wear and tear, manufacturing defect).
  8. High quality of investigation wished by the investigators, necessitating more evidence collection effort, more discussions during the analysis stage of the investigation, more effort in the drafting of the investigation report and more intense vetting of the draft investigation report.
- c) In view of the above, while the IIC will bear in mind ICAO's recommended investigation completion timeframe, a more realistic investigation timeframe will be as follows:
1. General Aviation
    - No fatality - 12 months
    - With fatality - 18 months
  2. Commercial Transport
    - Non-major - 18 months
    - Major but no fatality - 24 months
    - With fatality - 30 months
  3. Air Traffic Control
    - Simple cases - 12 months
    - More complicated cases - Refer to 1 and 2 above
- d) The completion status of the investigation will be reviewed during the AAIT departmental meeting.
- e) The following has to be noted if an investigation is targeted to take more than a year to complete:
- f) Safety recommendations can be made at any stage during the course of an investigation. They need not be made only at the completion of an investigation.



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1. During the first year of the investigation, the IIC shall prepare for release established factual information and indicate the progress of the investigation in a timely manner. Thereafter, the IIC shall make an interim statement publicly available on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues raised.

71. INVESTIGATION REPORT - ACCIDENT DATA REPORT

- a) When the Final Report of the investigation of an accident involving an aircraft of a maximum certificated take-off mass of more than 2,250 kg has been completed, an Accident Data Report shall be compiled using the ECCAIRS software.
- b) The purpose of this Accident Data Report is to provide ICAO with accurate and complete information regarding the accident, including factors (causes) and safety recommendations.
- c) The investigator-in-charge shall send the Accident Data Report to the ICAO (email address: [ADREP@icao.int](mailto:ADREP@icao.int))
- d) If an accident investigation can be completed and the Accident Data Report can be compiled within 30 days of the date of the accident, there is no need to send a Preliminary Report. In such cases, besides sending the Accident Data Report to the ICAO, the investigator-in-charge shall also send the Accident Data Report to the ICAO States which normally would have received the Preliminary Report.
- e) If some of the information in the Preliminary Report was not correct or was incomplete, this should be reflected in the Accident Data Report in order for the ICAO to update the Preliminary Report information accordingly.
- f) If an investigation is reopened, the information previously reported should be corrected by a new Accident Data Report.
- g) Upon request, the AAIT will provide other States with pertinent information additional to that made available in the Accident Data Report.
- h) The AAIG-BD will use ECCAIRS, ADREP or normal E-mail to send Accident Data Report to ICAO.

72. INVESTIGATION REPORT - INCIDENT DATA REPORT



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- a) There is no obligation to conduct an investigation into an incident. However, if an incident is significant enough to warrant an investigation (e.g. in the case of a serious incident), and if the incident involves an aircraft of a maximum certificated take-off mass of more than 5,700 kg, then an Incident Data Report shall be compiled using the ECCAIRS software.
- b) The investigator-in-charge shall send the Incident Data Report to the ICAO (email address: [ADREP@icao.int](mailto:ADREP@icao.int)) as soon as is practicable after the investigation.

Note: A copy of the Final Report of the investigation of the incident will also be sent to ICAO if the Final Report has been released.

- c) If an investigation is reopened, the information previously reported should be corrected by a new Incident Data Report.
- d) Upon request, the AAIG-BD will provide other States with pertinent information additional to that made available in the Incident Data Report.
- e) The AAIG-BD will use ECCAIRS, ADREP or normal E-mail to send Accident Data Report to ICAO.

## 73. INVESTIGATION REPORT - RELEASE OF FINAL REPORT

### 73.1 Release of the Final Report

- a) When the investigator-in-charge (IIC) has completed the Final Report of an investigation of an accident or incident, he shall inform the Investigator in Charge (IIC).
- b) The IIC shall disseminate the Final Report with minimum delay to the following parties:
  - 1. State that instituted the investigation
  - 2. State of Registry
  - 3. State of Occurrence
  - 4. State of the Operator
  - 5. State of Design
  - 6. State of Manufacture
  - 7. State that has participated in the investigation
  - 8. States that have provided relevant information, significant facilities or experts
  - 9. States that have suffered fatalities or serious injuries to its citizens
  - 10. ICAO (email address [ADREP@icao.int](mailto:ADREP@icao.int)), only in the case where the aircraft is of a maximum certificated take-off mass of more than 5,700 kg
  - 11. The operator, directly or through the State of the Operator



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12. The organisations responsible for the type design and the final assembly of the aircraft, directly or through the State of Design and the State of Manufacture
13. Persons whose reputation may be affected by the investigation report
14. Next-of-kin (if applicable)

- c) The Head of AAIG-BD will make the Final Report publicly available by having it posted on the AAIG-BD website as soon as possible.

### 73.2 Interim Statement or Report

If the Final Report cannot be made publicly available within 12 months, the AAIG-BD will release, during the first year of the investigation, established factual information and indicate the progress of the investigation in a timely manner and will make an interim statement publicly available on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues raised.

## 74. INVESTIGATION REPORT - SAFETY RECOMMENDATIONS

### 74.1 Safety Recommendation

A safety recommendation shall in no case create a presumption of blame or liability for an accident or incident.

### 74.2 Safety Recommendations Arising from the Investigation

- a) The Investigator in Charge (IIC) or the investigator-in-charge (IIC) may recommend to ICAO and the relevant persons and authorities, including those in other Contracting States, any preventive action that the IIC considers necessary to be taken promptly to enhance aviation safety. The Investigator in Charge or the IIC may make the recommendations at any stage of the investigation. They do not need to wait till the completion of the investigation to make the safety recommendations. Intended safety recommendations shall also be included in the Draft Final Report.
- b) The Investigator in Charge shall cause a safety recommendation to be communicated to the relevant person or authority in State. The IIC will be the person who will communicate the safety recommendation to the relevant person or authority in State.
- c) The IIC will address the safety recommendations made to relevant persons and authorities in other Contracting States to the accident investigation authorities of the respective Contracting States. The IIC may address to these authorities as soon as the safety recommendations are made.



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- d) The IIC will address to ICAO the safety recommendations made to ICAO, including where ICAO documents are involved. The IIC may address to ICAO as soon as the safety recommendations are made.

Note: When Final Reports contain safety recommendations addressed to ICAO, these reports must be accompanied by a letter from the Head of AAIG-BD outlining the specific action proposed.

- e) The Investigator in Charge, the IIC and the AAIG-BD do not have the power to enforce the safety recommendations. Nevertheless, the Head of AAIG-BD will monitor the progress of the action taken in response to the safety recommendations.

Note: In respect of safety recommendations made to a person or authority in State, the person or authority concerned shall be required to:

1. take those recommendations into consideration and, where appropriate, act upon them;
2. provide the Investigator in Charge with the full details of the measures, if any, that he or it has taken or proposed to take to implement the recommendations (including the schedule of implementation); or
3. provide a full explanation as to why no measures will be taken to implement the recommendations.

- f) In respect of safety recommendations made to a person or authority outside State, Investigator in Charge or the AAIG-BD will endeavour to obtain such information through the accident investigation authorities of the Contracting States concerned.

#### 74.3 Safety Recommendation of Global Concern

- a) ICAO has established a system to make accessible, to all aviation stakeholders and the public, safety recommendations of global concern (SRGC) issued by States, as well as the responses to the recommendations. ICAO requires States to inform ICAO of SRGCs as well as the responses to the SRGCs.
- b) ICAO defines a SRGC as 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.



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c) ICAO's criteria of SRGC are as follows:

1. The deficiency underlying the recommendation is systemic and not solely a local issue.
2. The probability of recurrence of the accident and the adverse consequences are high.
3. The risk to persons, equipment and/or environment is high.
4. The urgency for taking effective remedial safety action is high.
5. There is a history of recurrence of the relevant deficiency.
6. The deficiency underlying the recommendation constitutes a risk to the airworthiness, design, manufacture, maintenance, operation and/or regulation of the involved aircraft type.
7. The deficiency underlying the recommendation constitutes a risk to more than one aircraft type, to more than one operator, to more than one manufacturer and/or to more than one State.
8. The mitigation of the risks associated with the deficiency will require coordinated efforts of more than one entity of the air transport industry, such as civil aviation authority(ies), manufacturer(s) and operator(s).

75. INVESTIGATION CONDUCTED BY ANOTHER STATE - APPOINTMENT OF ACCREDITED REPRESENTATIVE AND ADVISERS FROM BANGLADESH

- a) The Head of AAIG-BD may appoint an accredited representative to participate in a foreign accident/incident investigation, and one or more advisers to assist the accredited representative, in the following cases:
1. where Bangladesh is the State of Registry, State of the Operator, State of Manufacture or State of Design of the aircraft involved in the accident or incident; or
  2. where Bangladesh has, at the request of the State conducting the investigation, provided information, facilities or experts to the State in connection with the investigation.
  3. In particular, in the case of an accident or a serious incident where Bangladesh is the State of Registry, the State of the Operator, the State of Design or the State of Manufacture of the aircraft concerned, and when the State conducting the investigation specifically request participation by Bangladesh, the Head of AAIG-BD will appoint an accredited representative to the investigation.
  4. Where Bangladesh is the State of Registry or the State of the Operator, the Head of AAIG-BD will appoint one or more advisers, proposed by the operator, to assist the accredited representative.





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5. Where Bangladesh is the State of Design or the State of Manufacture, the Head of AAIG-BD may appoint one or more advisers, proposed by the organisations responsible for the type design and the final assembly of the aircraft, to assist the accredited representatives.
- b) If the accredited representative needs advisers to assist him, he may propose to the Head of AAIG-BD to consider the necessary appointment.
76. INVESTIGATION CONDUCTED BY ANOTHER STATE - SAMPLE PRESS RELEASE ON APPOINTMENT OF ACCREDITED REPRESENTATIVE AND ADVISERS (SAMPLE PRESS RELEASE)

The Aircraft Accident Investigation Group of Bangladesh (AAIG-BD) has sent a team of specialists to assist in the investigation by [name of foreign investigation authority] of the accident at \_\_\_\_\_ on \_\_\_\_\_ involving an [ABC Airlines] [aircraft model] aircraft [e.g. during landing].

The team is led by \_\_\_\_\_, a senior AAIG-BD investigator, who has been named Bangladesh's Accredited Representative in accordance with the procedures of the International Civil Aviation Organization.

Mr. \_\_\_\_\_ is joined by AAIG-BD specialists in [e.g. aircraft engines, aircraft systems, flight operations and survival factors], plus [an] investigator(s) from [the Civil Aviation Authority of Bangladesh, ABC Airlines, etc.].

All information on the progress of the investigation will be released by the [name of foreign investigation authority].

77. INVESTIGATION CONDUCTED BY ANOTHER STATE - TASKS OF STATE'S ACCREDITED REPRESENTATIVE

77.1 General

- a) The accredited representative shall bear in mind that he is a representative of the government of Bangladesh.
- b) The accredited representative shall ensure that he and his advisers act professionally.
- c) The accredited representative and his advisers:





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1. will provide the State conducting the investigation with all relevant information available; and
2. shall not divulge information on the progress and the findings of the investigation without the express consent of the State conducting the investigation

77.2 Entitlement of Accredited Representative and Advisers

- a) The accredited representative is entitled to participate in all aspects of the investigation, under the control of the investigator-in-charge of the State conducting the investigation, in particular to:
  1. Visit the scene of the accident
  2. Examine the wreckage
  3. Obtain witness information and suggest areas of questioning
  4. Have full access to all relevant evidence as soon as possible
  5. Receive copies of all pertinent documents
  6. Participate in readouts of recorded media
  7. Participate in off-scene investigative activities such as component examinations, technical briefings, tests and simulations
  8. Participate in investigation progress meetings including deliberations related to analysis, findings, causes and safety recommendations
  9. Make submissions in respect of the various elements of the investigation
- b) Advisers assisting the accredited representative are permitted, under the accredited representative's supervision, to participate in the investigation to the extent necessary to enable the accredited representative to make his participation effective.
- c) However, our participation other than as the State of Registry, the State of the Operator, the State of Design and the State of Manufacture may be limited to those matters which entitled Bangladesh to participate.

77.3 Tasks of the Accredited Representative

- a) The key tasks of the accredited representative are as follows:



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1. To request, if necessary, the State of Occurrence to keep the aircraft, its contents, and any other evidence undisturbed pending his arrival and inspection.
2. To coordinate with the parties concerned in Bangladesh regarding participation of their personnel in the foreign investigation.
3. To keep the Accident Investigation Command Centre, if set up, informed of the progress of the field investigation.
4. To request for factual data concerning the accident from the State conducting the investigation.
5. To coordinate with the parties concerned in Bangladesh and provide input and suggestions to the State conducting the investigation.
6. To conduct his own analyses basing on the factual data collected.
7. To request, where necessary, for progress meetings and analysis discussions with the State conducting the investigation.
8. To ensure his advisers are aware of the non-disclosure protocol as per paragraph 1.3(b).
9. To disseminate the draft Final Report from the State conducting the investigation to the parties concerned in Bangladesh and invite their official comments and to conduct, if necessary, review meetings with these parties as soon as possible.
10. To reply to the State conducting the investigation with comments on the draft Final Report, if any, within the deadline given.
11. To request, if necessary, for an extension of the deadline to provide comments on the draft Final Report.
12. To disseminate the Final Report from the State conducting the investigation to the parties concerned in Bangladesh and to highlight the safety recommendations addressed to them, if any.
13. To require the parties in Bangladesh to whom safety recommendations have been made by the State conducting the investigation in the Final Report to inform him of the preventive action taken or under consideration or the reasons why no action will be taken.
14. To inform the Bangladesh conducting the investigation of the follow-up action taken by the parties concerned in Bangladesh or the reasons why no action will be taken by these parties.

78. INVESTIGATION CONDUCTED BY ANOTHER STATE - POWERS OF BANGLADESH'S ACCREDITED REPRESENTATIVES AND ADVISERS



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- a) The accredited representative may, for the purposes of the investigation in which he is participating, exercise all or any of the rights and powers specified in paragraph 1 of Chapter 3 of Section 5 of this Handbook in respect of any aircraft, records, information, documents, objects, witnesses or other evidence in Bangladesh or held by any person in Bangladesh which or whom the accredited representative considers to be relevant or necessary to the investigation.
- b) An advisor shall have the same access rights and powers as the accredited representative, but only to the extent specified by the Investigator in Charge (IIC).

79. INVESTIGATION CONDUCTED BY ANOTHER STATE - ACTIONS AT THE ACCIDENT INVESTIGATION COMAND CENTRE

79.1 Setting up of the Accident Investigation Command Centre (AICC)

- a) If directed by the Head of AAIG-BD, an AICC will be set up at the AAIG-BD office.
- b) The Head of AAIG-BD will arrange for an adequate number of telephone and facsimile lines.

79.2 Tasks of the AICC

- a) The AICC will maintain links with the accredited representative and his team of advisers.
- b) The AICC also provide the necessary support, in particular:
  - 1. To recall the other AAIG-BD investigators.
  - 2. To arrange for the security of the AICC, where necessary.
  - 3. To keep an event log.
  - 4. To monitor accident casualty information.
  - 5. To coordinate with the Bangladesh operator involved in the accident.
  - 6. To request for external assistance, as necessary (e.g. from local agencies and aerospace organisations).
  - 7. To liaise with other organisations as necessary.
  - 8. To provide other facilities and logistics support, etc., as necessary
  - 9. To assist in making travel arrangement for the AAIT investigators.
  - 10. To prepare any necessary information, updates, etc., to Chairman CAAB and the MOCAT.
  - 11. To draft any necessary press release.

80. INVESTIGATION CONDUCTED BY ANOTHER STATE - FOREIGN ACCIDENTS INVOLVING FATALITIES OR SERIOUS INJURIES TO BANGLADESH CITIZENS



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### 80.1 Appointment of Expert

- a) Where Bangladesh is not the State of Registry, the State of the Operator, the State of Design or the State of Manufacture, and its citizens have suffered fatalities or serious injuries in a foreign accident, the AAIG-BD may appoint an expert to participate in the foreign investigation.
- b) The Investigator in Charge (IIC) may recommend a person for AAIG-BD's consideration of appointment as an expert to participate in the foreign investigation.
- c) If the expert is not an AAIG-BD investigator, the Investigator in Charge (IIC) will arrange for him to be briefed accordingly.

### 80.2 Entitlement of the Expert

- a) The Bangladesh expert is entitled to:
  1. visit the scene of the accident;
  2. have access to the relevant factual information, which is approved for public release by the State conducting the investigation, and information on the progress of the investigation; and
  3. receive a copy of the Final Report.
- b) The Bangladesh expert is not precluded from also assisting in the identification of victims and in meetings with Bangladesh's survivors.

## 81. INVESTIGATION REPORT - SAFETY RECOMMENDATIONS BY ANOTHER CONTRACTING STATE

### 81.1 Safety Recommendation

A safety recommendation shall in no case create a presumption of blame or liability for an accident or incident.

### 81.2 Safety Recommendations by Another Contracting State



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- a) Where any safety recommendation has been forwarded to Bangladesh by another Contracting State, the Head of AAIG-BD shall cause the safety recommendation to be communicated to the relevant person or authority in Bangladesh. If a Bangladesh accredited representative has been appointed for the related investigation by the Contracting State, he will be the person who will communicate the safety recommendation to the Head of AAIG-BD for onward implementation.
- b) The Head of AAIG-BD will disseminate and monitor the progress of the action taken in response to the safety recommendations and update the Chairman CAAB for onward intimation to MOCAT of the Recommendations Status Review Panel accordingly.
- c) The Head of AAIG-BD shall notify the Contracting State that has forwarded the safety recommendation to Bangladesh, within 90 days of the date of the transmittal correspondence, of the preventive action taken or under consideration by the relevant person or authority in Bangladesh or the reasons as to why no action will be taken by them.

82. DISCLOSURE AND DISPOSAL OF RECORDS AND INFORMATION

- a) The accredited representatives from the various States and their advisors taking part in an investigation conducted by the AAIT, as well as the experts who participate by virtue of their States having suffered fatalities, are not allowed to disclose any information on the progress and findings of the investigation without the express consent in writing of the Head of AAIG-BD.
- b) Likewise, when AAIG-BD investigators are taking part in an investigation conducted by another State, they must not disclose information on the progress of the investigation and findings without the written consent of the IIC concerned. They must also help ensure that non-AAIT personnel taking part in the investigation as advisors to our accredited representative do not disclose such information without proper authorization.
- c) Also, States have an obligation not to circulate, publish or give access to a draft report or any part thereof, or any documents obtained during an investigation of an accident or incident without the express consent of the Head of AAIG-BD, unless such reports or documents have already been published or released by the AAIT.
- d) The names of the persons involved in the accident or incident shall not be disclosed to the public by the AAIT.
- e) No person is allowed to disclose or make available to any other person any of the following records for any purpose other than an investigation carried out under this Order unless the



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High Court determines that the benefits resulting from disclosure outweighs the adverse domestic and international impact the disclosure may have on that or any future investigation:

1. any statement taken from persons in the course of an investigation;
  2. any communication between persons having been involved in the operation of the aircraft;
  3. any medical or private information regarding persons involved in the accident or incident;
  4. any cockpit voice recording and transcript from such recording;
  5. any ATS recording and transcript from such recording;
  6. any cockpit airborne image recording and any part or transcript from such recording;
  7. any opinion expressed in the analysis of information, including flight recorder information.
- f) Accordingly, a record referred to in paragraph e(1)-(7) above may be included in a Final Report or its appendices, or in any other report only when it is relevant to the analysis of the accident or incident. Such parts of the record which are not relevant to the analysis of the accident or incident shall not be included in the Final Report.

### 83. DISCLOSURE AND DISPOSAL OF RECORDS

- a) The Head of AAIG-BD and/or an investigator-in-charge are not required to hold aircraft records or factual information concerning an accident or incident beyond such time as is necessary for the completion of the investigation and reports.
- b) The records and information referred to in paragraph a) include:
  1. photographs;
  2. written statements; and
  3. documents pertaining to the accident or incident, the circumstances of the accident or incident, or the aircraft or personnel involved.
- c) Such records shall be returned to the persons from whom they were obtained and if not claimed by such persons after a reasonable period, may be disposed of in any manner that the Head of AAIG-BD and/or the Investigator in Charge deems fit.

### 84. EXPENSES AND LIABILITY - INVESTIGATION EXPENSES





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Any expenses incurred by reason of anything done by the investigator-in-charge or the persons designated to assist him in exercise of any access rights or powers for the purposes of the investigation shall be borne by the owner or operator of the aircraft and be recoverable from either or both of them.

85. EXPENSES AND LIABILITY - EXPENSES FOR REMOVAL OF AIRCRAFT

- a) Any expenses incurred in removing the accident aircraft shall be borne by the owner, operator or hirer of the aircraft.
- b) Where the aircraft is removed by the Head of AAIG-BD or the investigator-in-charge (IIC) either because of the absence of the owner, operator or hirer of the aircraft, or because of failure by the owner, operator or hirer to comply with the order by the Investigator in Charge (IIC) to remove the aircraft, the expenses incurred in removing the aircraft by the Investigator in Charge (IIC) shall be recoverable from the owner, operator or hirer of the aircraft or all of them.

86. EXPENSES AND LIABILITY - EXPENSES FOR DISPOSAL OF AIRCRAFT AND WRECKAGE

- a) Any expenses incurred in disposing the accident/incident aircraft, parts, wreckage or contents shall be borne by the owner or operator of the aircraft.
- b) If a person to whom custody of the aircraft, parts, wreckage or contents is to be released refuses to take custody thereof or fails to take custody within a reasonable period, the Investigator in Charge may dispose of the aircraft, parts, wreckage or contents in such manner as he deems fit.
- c) The expenses incurred by the Investigator in Charge in disposing of the aircraft, parts, wreckage or contents shall be recoverable from the owner or operator of the aircraft or both.

87. EXPENSES AND LIABILITY

- a) Section 30 of the Air Navigation Act excludes liability for damages and compensation for anything done under the Act or subsidiary legislation.
- b) As such, for an accident/incident in Bangladesh, the Head of AAIG-BD and the investigator-in-charge (IIC) will not be liable for any damage done to the accident/incident aircraft during its removal by the Investigator in Charge (IIC) or the Head of AAIG-BD either because of the absence of the owner, operator or hirer of the aircraft, or because of failure by the owner, operator or hirer to comply with the order by the Investigator in Charge (IIC) or the Head of AAIG-BD to remove the aircraft.





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- c) Similarly, the Head of AAIG-BD, the Investigator in Charge (IIC), the Investigators assisting the IIC, the Bangladesh accredited representative and any of their advisors will also not be liable for any damage done to the accident/incident aircraft (for accident/incident in Bangladesh) in the course of the investigation, or to any other aircraft or object or evidence required by them in the course of the investigation, where there has been no negligence on their part.
- d) Nevertheless, investigators are reminded to exercise due care and to minimize damage to any aircraft or object or evidence in the course of the investigation.

88. REOPENING OF INVESTIGATION CONDUCTED BY AAIT

88.1 Reopening of Investigation Into an Accident or a Serious Incident

Only AAIG-BD has the power to reopen an investigation into an accident or a serious incident. If evidence has been disclosed after the completion of the investigation which, in his opinion, is new and significant, the Head of AAIG-BD will be obliged to cause a reopening of the investigation.

88.2 Reopening of Investigation of an Incident Other than a Serious Incident

The Head of AAIG-BD, the Investigator in Charge (IIC) has the power to reopen an investigation into an incident other than a serious incident. If evidence has been disclosed after the completion of the investigation which, in his opinion, is new and significant, the Head of AAIG-BD and/or the Investigator in Charge (IIC) may cause a reopening of the investigation.

89. OFFENCES

- a) Any person who contravenes the following paragraphs shall be guilty of an offence:
  - 1. Failure to notify an accident or a serious incident to the Head of AAIG-BD or the Investigator in Charge (IIC)
  - 2. Failure to furnish information with respect to an incident, other than a serious incident, to the Head of AAIG-BD or the Investigator in Charge (IIC) as required
  - 3. Unauthorized access to an aircraft involved in an accident or serious incident or moving or interfering with the aircraft
  - 4. Unauthorized circulation, publication, disclosure or provision of access to any draft report or any part of its contents or any documents obtained during an investigation
  - 5. Unauthorized disclosure of records



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6. Obstructing investigation

7. Failure to comply with summons of the Head of AAIG-BD or an investigator-in-charge

b) Such person will be liable on conviction to a fine of BDT 5,000 or to imprisonment for a term not exceeding 12 months or to both.

90. LISTS OF CONTACTS AND LOCAL ORGANISATIONS

The Head of AAIG-BD will be responsible to publish the required information in the CAAB website [www.caab.gov.bd](http://www.caab.gov.bd) in the dedicated Menu by the name 'ACCIDENT INVESTIGATION'.

91. REFERENCES (SOURCES OF TECHNICAL INFORMATION)

Listed below are useful materials (please use the latest and updated materials, as applicable) that all Investigators of Accidents should familiarize themselves with:

1. ICAO Annex 13;
2. ICAO Manual of Aircraft Accident and Incident Investigation (Doc 9756);
3. ICAO Manual of Aircraft Accident Investigation (Doc 6920, which is replaced by Doc 9756);
4. ICAO Accident Prevention Manual (Doc 9422);
5. ICAO Accident/Incident Report Manual (ADREP Manual, Doc 9156);
6. ICAO Manual of Civil Aviation Medicine (Doc 8984);
7. ICAO Human Factors Training Manual (Doc 9683);
8. ICAO Human Factors Digests;
9. ICAO Safety Management Manual (Doc 9859);
10. ICAO Manual on Accident and Incident Investigation Policies and Procedures (Doc 9962);
11. ICAO Policy on Assistance to Aircraft Accident Victims and their Families (Doc 9998);
12. ICAO Guidance on Assistance to Aircraft Accident Victims and their Families (Circular 285);
13. ICAO Technical Instruction for the Safe Transport of Dangerous Goods by Air (Doc 9284);
14. IATA Dangerous Goods Regulations;
15. ICAO Circular on Hazards at Aircraft Accident Sites (Circular No. 315);
16. ICAO Emergency Response Guidance for Aircraft Accidents involving Dangerous Goods (Doc 9481); and,
17. The compendium of Aircraft Accident Investigation of AAIG-BD.

END



PART-H  
EVIDENCES RELATED TO  
AIRCRAFT ACCIDENT INVESTIGATION



CIVIL AVIATION AUTHORITY OF BANGLADESH  
HEADQUARTERS KURMITOLA DHAKA-1229  
BANGLADESH

COMPENDIUM ON  
AIRCRAFT ACCIDENT INVESTIGATION IN BANGLADESH

PART-H  
EVIDENCES RELATED TO AIRCRAFT ACCIDENT INVESTIGATION

AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH  
(AAIG-BD)



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AIRCRAFT ACCIDENT INVESTIGATION




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PART-H  
EVIDENCES

APPROVAL AND UPDATING OF THIS PART

1. Information contained in Part-H portion of this Compendium is an internal document of the Aircraft Accident Investigation Group of Bangladesh (AAIG-BD). It contains 'Evidences' relating to the Compendium.
2. Except for material which has been approved for public distribution, the contents of this Part are not intended to be communicated to persons outside the AAIG-BD without the consent of the Head of AAIG-BD.
3. The contents of this Part are not regulatory in nature and is not a binding statement of policy, and is not all inclusive. Deviation from the guidance offered in this Part may at times be necessary to meet the specific needs of an investigation.
8. The contents of this Part will be updated or revised as and when necessary (e.g. to comply with new ICAO requirements, to address feedback from operational experience and audits, and make corrections and editorial improvement). The Investigators of Accidents and AAIG-BD panel are encouraged to contribute ideas for improving the contents of this Part.
9. The revision may be made by Head of AAIG-BD himself. He may also assign an officer such as a Member Secretary AAIG-BD, to prepare the draft of the revision, in which case he will review and submit the revision for approval by the Head of AAIG-BD.
10. A distribution list of the Soft/hardcopies of the evidences shall be maintained with AAIG-BD.
11. For amendment of the hardcopies, Head of AAIG-BD or the Member Secretary AAIG-BD will prepare an amendment instruction and will arrange for the amendment instruction and the related new/amended pages to be distributed and inserted into the evidences.
12. For the Soft/hardcopies of the evidences, Head of AAIG-BD or the Member Secretary AAIG-BD will arrange for an updated version and shall distribute as applicable.
13. This evidences on Aircraft Accident Investigation are hereby adopted.

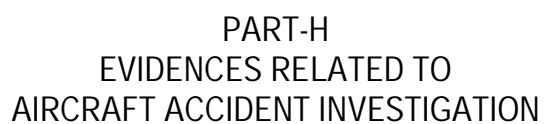
  
Capt Salahuddin M Rahmatullah  
Head of AAIG-BD  
30 June 2016



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## AMENDMENTS

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# PART-H EVIDENCES RELATED TO AIRCRAFT ACCIDENT INVESTIGATION



## PART-H EVIDENCES

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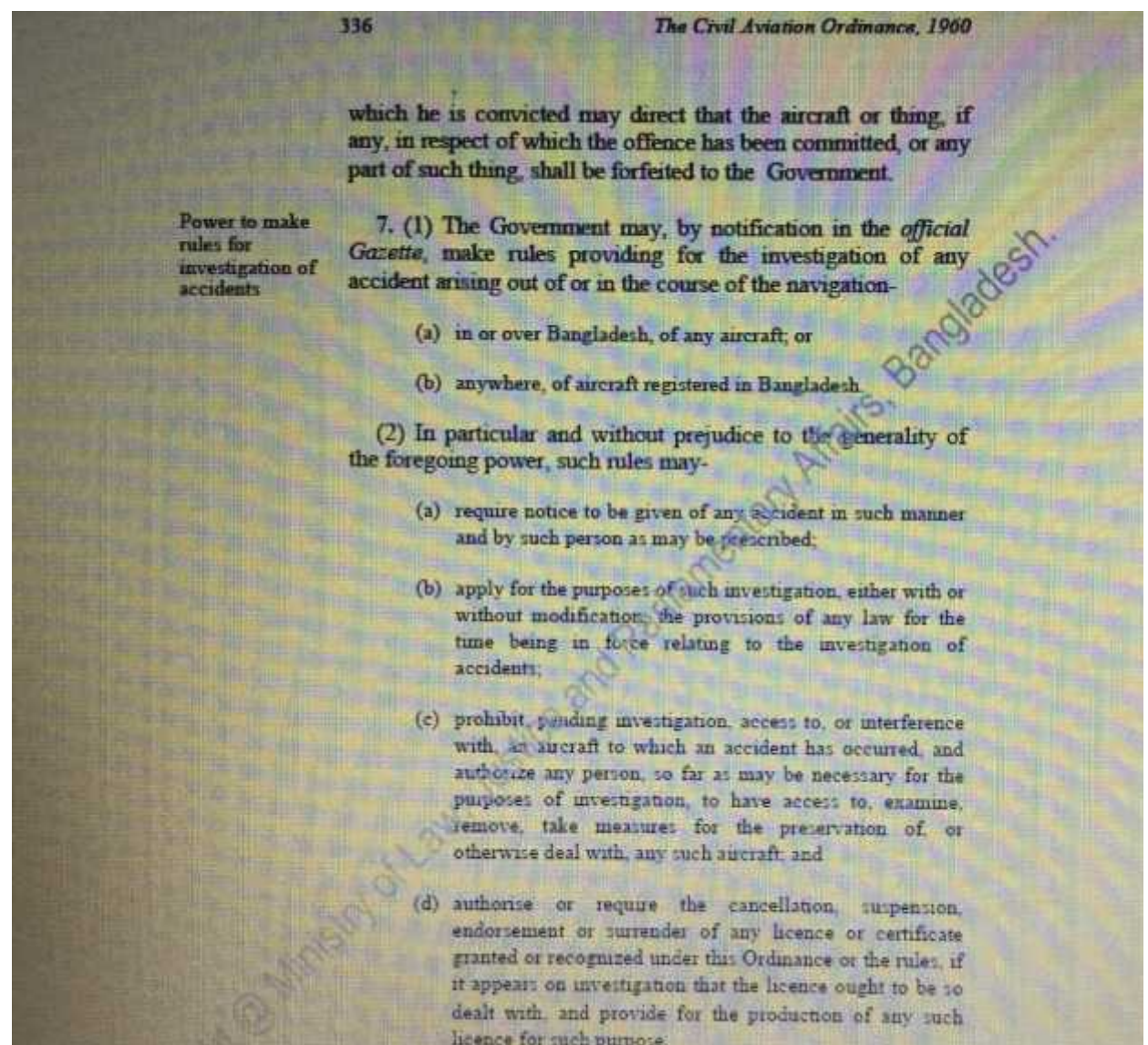
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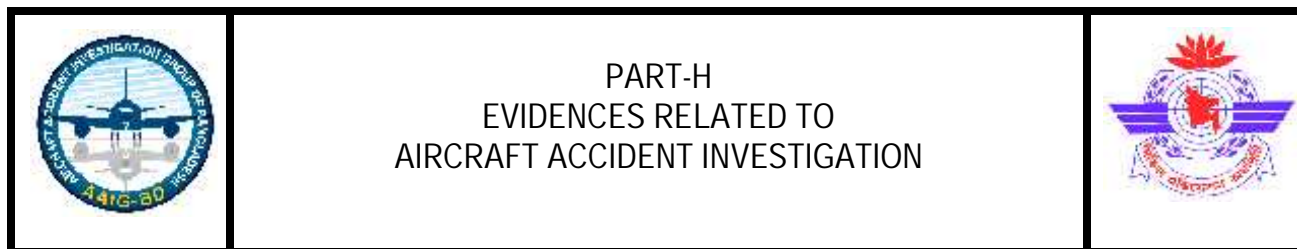


### PART-H EVIDENCES

#### 1. RELATED PORTIONS OF CIVIL AVIATION ORDINANCE 1960

Copy of the relevant portion of Civil Aviation Ordinance 1960, as outlined below, makes the provision for making the Civil Aviation Rules (CAR) that in terms, empowers the Chairman CAAB to conduct Aircraft Incident and Accident Investigation. The CAR has been published through Official Gazette vide S.R.O 398L/84, Dated 30 September 1984 (shown in Section 2 of this Part). The Rules on Aircraft Accident Enquiry encompasses Part-XIII in the CAR '84 those are accommodated in Part-B of this Compendium.



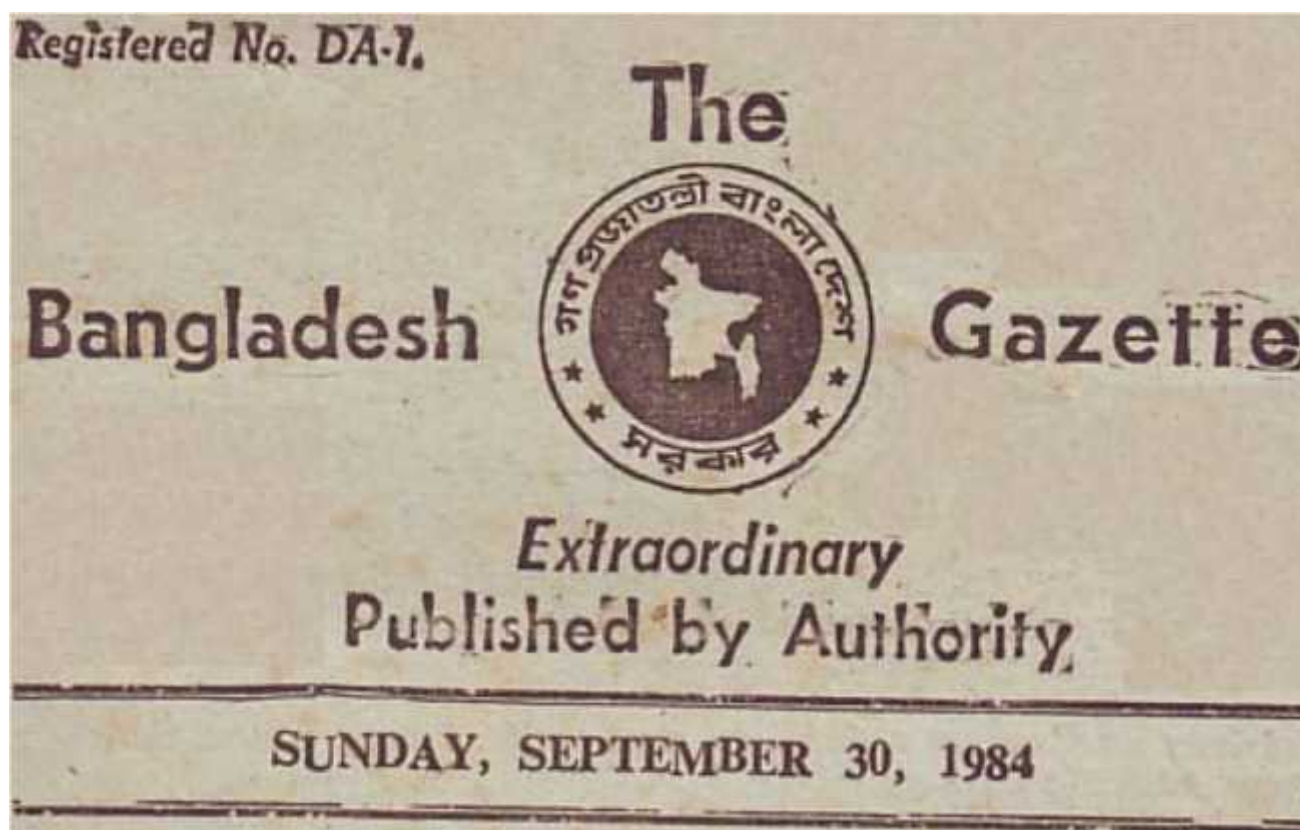


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**EVIDENCES**

**2. OFFICIAL GAZETTE, S.R.O 398L/84 DATED 30 SEPTEMBER 1984**

- a) Pursuant to Section 7 of the Civil Aviation Ordinance 1960, the Government of the Peoples' Republic of Bangladesh published an Official Gazette vide reference S.R.O-398-L/84, dated 30 September 1984, empowering the Chairman CAAB to conduct Investigation of Aircraft Accident. This has been documented in Part XIII of Civil Aviation Rules 1984 (CAR '84).
- b) The Heading of Part XIII in in CAR '84 is 'Aircraft Accident Inquiry'. The Part addresses all the relevant issues related to the Investigation of Aircraft Accident. Part XIII encompasses a total of 22 Rules, starting from Rule 234 ending to Rule 255 on accident investigation. All the 22 Rules have been REPRODUCED in Part-B of the Compendium without any change what so ever.

Note: Copy of the relevant portion of the Official Gazette, S.R.O 398L/84, published on 30 September 1984 has been shown below that steered the Civil Aviation Rules (CAR) empowering Chairman CAAB to conduct Aircraft Incident and Accident Investigation.







PART-H  
EVIDENCES RELATED TO  
AIRCRAFT ACCIDENT INVESTIGATION



GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH  
MINISTRY OF DEFENCE

Civil Aviation and Tourism Division

NOTIFICATION

Dhaka, the 23rd August 1984

No. S.R.O. 398-L/84.—In exercise of the powers conferred by sections 4, 5, 7 and 8 of the Civil Aviation Ordinance, 1960 (XXXII of 1960), section 10 of the Aircraft (Removal of Danger to Safety) Ordinance, 1965 (XII of 1965), section 4 of the Telegraph Act, 1885 (XIII of 1885), and in supersession of the Aircraft Rules, 1937, and the Airport Obstruction Clearance Rules, 1981, the Government is pleased to make the following rules, the same having been previously published as required by sub-section (2) of section 15 of the Civil Aviation Ordinance 1960 (XXXII of 1960), namely :—

THE CIVIL AVIATION RULES, 1984

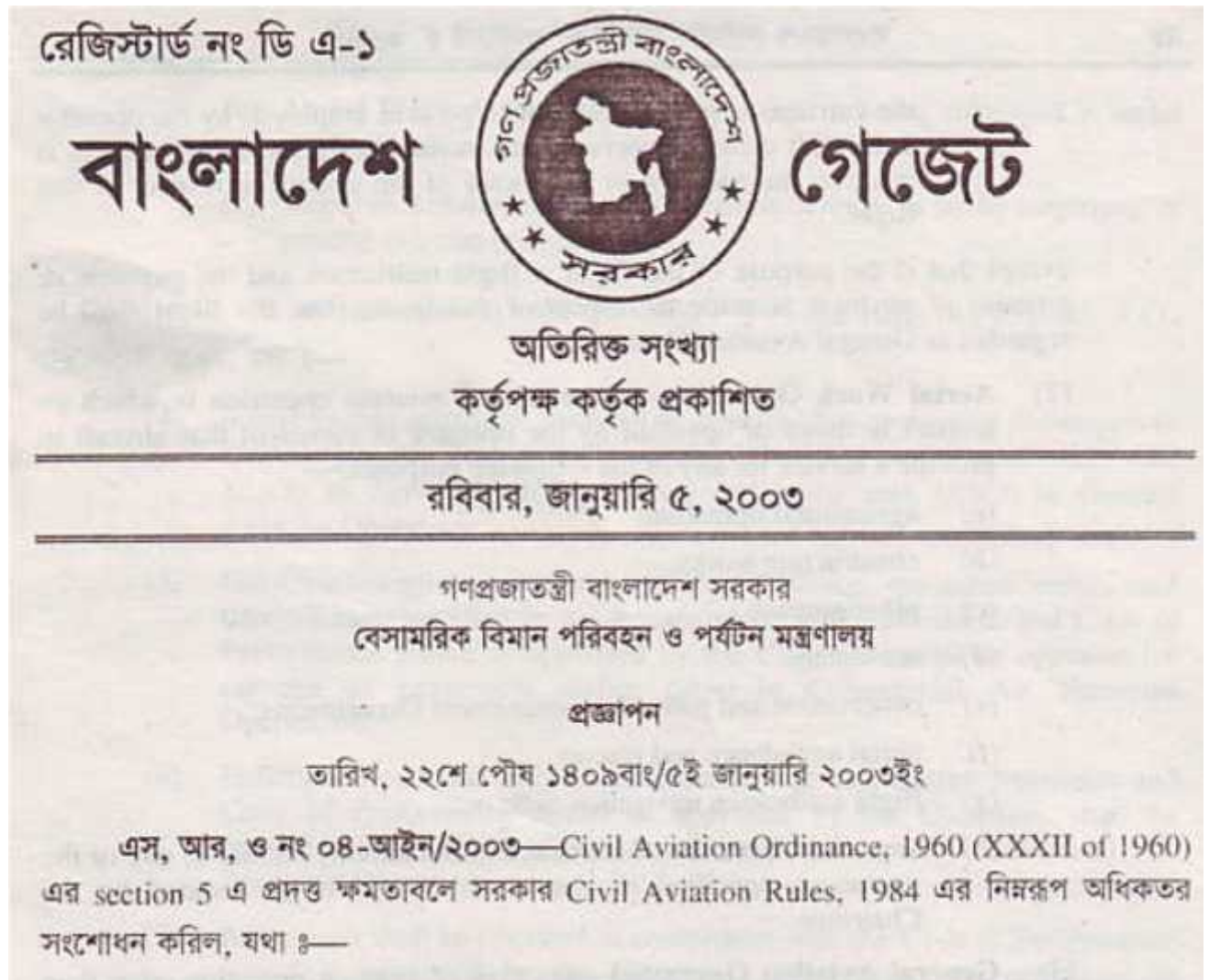


PART-H  
EVIDENCES RELATED TO  
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3. OFFICIAL GAZETTE (AMENDED), S.R.O-004/2003 DATED 05 JANUARY 2003

The latest amendment for Part-XIII of CAR '84 was published through an Official Gazette vide reference S.R.O-004/2003, Dated 05 January 2003. The amendments were applicable to Rule 234 and 235, Part-XIII of CAR '84. The photocopy of the Gazette has been shown below:







PART-H  
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(৩৫) rule 234 এর—

(ক) clause (a) এর sub-clauses (i) ও (ii) এর পরিবর্তে নিম্নরূপ sub-clauses (i), (ii) ও (iii) প্রতিস্থাপিত হইবে, যথা :—

“(i) any person suffers death or serious injury as a result of being in or upon the aircraft or with direct contact with the aircraft or anything detached from the aircraft or direct exposure to jet blast ; or

(ii) the aircraft sustains substantial damage or structural failure ; or

(iii) the aircraft is missing or is completely inaccessible.”.

(খ) clause (f) এর পর বিদ্যমান সেমিকোলনটির (;) পরিবর্তে কমা (,) প্রতিস্থাপিত হইবে এবং অতঃপর নিম্নরূপ নতুন clause (g) সন্নিবেশিত হইবে, যথা :—

“(g) “serious incident” means an incident involving circumstances indicating that an accident nearly occurred.”;

(৩৬) rule 235 এর sub-rule (1) এর পরিবর্তে নিম্নরূপ sub-rule (1) প্রতিস্থাপিত হইবে, যথা :—

“(1) When an accident, serious incident or incident occurs :—

(a) to an aircraft registered in Bangladesh, or

(b) to any aircraft in Bangladesh territory, the Pilot-in-command, the owner, the operator and the hirer, if any, shall each be responsible for ensuring that a notification of the accident or serious incident or incident is furnished by telegram or telephone immediately after the occurrence followed by a written report to the Chairman.”;



## PART-H EVIDENCES RELATED TO AIRCRAFT ACCIDENT INVESTIGATION



4. PORTION OF THE CIVIL AVIATION RULES 1984 THOSE EMPOWERS THE CHAIRMAN CAAB TO DELEGATE THE RESPONSIBILITY TO OTHERS AND TO MAKE AIR NAVIGATION ORDERS (ANO)
- a) Rule 3 of CAR '84, copy indicated below, empowers Chairman CAAB to delegate the power and responsibility to any person/authority to perform the functions imposed by any Rule of CAR '84. Such responsibility has been vested to AAIG-BD by Chairman CAA which has been indicated in Section 5 of this Part.
  - b) Rule 4 of CAR '84, copy indicated below, empowers Chairman CAAB to make Air Navigation Orders (ANOs). Such ANOs have been constructed by AAIG-BD and approved by Chairman CAAB. Part-C of this Compendium contains the Regulations related to Aircraft Accident Investigation.

### **CIVIL AVIATION RULES 1984 PRELIMINARY**

#### **3. Responsibility of the Chairman.-**

- (1) The Chairman shall be responsible with the administration of these rules, and shall exercise such powers and perform such functions conferred on him by these rules.
- (2) The Chairman may by order in writing delegate and direct that any power and/or functions conferred or imposed by these rules on him, as the case may be, be exercised or performed on behalf of the Chairman by:
  - (a) any officer or authority subordinate to him, or
  - (b) any other person.
- (3) The Chairman shall make arrangements to identify the differences of contents of these rules from those of ICAO SARP's and to notify the differences, if any, to ICAO.
- (4) The Chairman shall maintain close liaison with Bangladesh Meteorological Department and Bangladesh Air Force in the matters of common interest.

#### **4. Air Navigation Orders.-**

For the purpose of giving effect to these rules and any requirements which are not inconsistent with these rules, the Chairman may publish orders to be known as Air Navigation Orders.




PART-H  
EVIDENCES RELATED TO  
AIRCRAFT ACCIDENT INVESTIGATION



5. DELEGATION OF RESPONSIBILITY TO CONDUCT AIRCRAFT ACCIDENT INVESTIGATION TO AAIG-BD

Copy of the Delegation of Responsibility to conduct Aircraft Accident Investigation to AAIG-BD has been shown below:

সদর দপ্তর  
সিভিল এভিয়েশন অথরিটি, বাংলাদেশ



Headquarters  
Civil Aviation Authority, Bangladesh

CAAB/CS/32/AAIG-BD/01/MASTER/ 22 June 2016

**OFFICE ORDER 01/AAIG-BD**

**SUB: DELEGATION OF AUTHORITY TO AIRCRAFT ACCIDENT INVESTIGATION GROUP OF BANGLADESH (AAIG-BD)**

Pursuant to Section 7 (1) of Bangladesh Ordinance 1960, Part XIII (Rule 234-255) and Rule 3 (2) (a) of Civil Aviation Rule 1984, I, the Chairman Civil Aviation Authority, Bangladesh have formed an Aircraft Accident Investigation Group of Bangladesh, to be abbreviated as AAIG-BD, that comprises seven 'Post Holders' headed by Capt Salahuddin M Rahmatullah, Senior Consultant & Chief Flight Operations Inspector, CAAB.

2. I have delegated authority to the Head of the AAIG-BD to ensure conduct of investigation independently in compliance with Annex 13 to the Chicago Convention of International Civil Aviation Organization (ICAO) following any Serious Incident and/or Accident of aircraft that may occur in the territory of Bangladesh involving any Bangladeshi and/or Foreign registered Aircraft or outside Bangladesh of any Bangladeshi Registered Aircraft. Details of the 'Post Holders' of the AAIG-BD are:

| S/N | Name of the Post       | Name & Designation  | E-Mail & Cell No.   |
|-----|------------------------|---|---|
| 1.  | Head of AAIG-BD        | Capt Salahuddin M Rahmatullah<br>Senior Consultant & CFI  | Head.AAIG@caab.gov.bd;<br>smr@bdc.com.net<br>+8801715027508; +8801708167318         |
| 2.  | Deputy Head of AAIG-BD | Mr Mohammed Ali Reza Khan<br>Senior Consultant ANS & AGA. | DyHead.AAIG@caab.gov.bd;<br>a.rezakhan@gmail.com<br>+88-01711594120; +8801708167319 |
| 3.  | Member, AAIG-BD        | Mr Md Ayub Khan,<br>Assistant Director                    | MemAGA.AAIG@caab.gov.bd;<br>ayubcaab@gmail.com<br>+8801718152577                    |
| 4.  | Member, AAIG-BD        | Mr Mohammad Shafiul Azam<br>Airworthiness Inspector       | MemAIR.AAIG@caab.gov.bd;<br>shafiulcaab@gmail.com<br>+88-01819154744                |





## PART-H EVIDENCES RELATED TO AIRCRAFT ACCIDENT INVESTIGATION



|    |                             |   |   |
|----|-----------------------------|---|---|
| 5. | Member, AAIG-BD             | Barrister Rajin Ahmed,<br>Legal Consultant & Attorney | MemLAW.AAIG@caab.gov.bd;<br>ahmed.rajin@gmail.com<br>+88-01730714641        |
| 6. | Member Secretary-1, AAIG-BD | Mr Ananda Mandal<br>Inspector of Aircraft             | MemSecy1.AAIG@caab.gov.bd;<br>ananda_mandal_25@yahoo.com<br>+88-01738384279 |
| 7. | Member Secretary-2, AAIG-BD | Mr Nirjhar Deb Nath<br>Inspector of Aircraft          | MemSecy2.AAIG@caab.gov.bd;<br>nirjharhere@gmail.com<br>+88-01717876086      |
|    | Duty Officer, AAIG-BD       | As per duty Roster                                    | DO.AAIG@caab.gov.bd<br>+8801708167320                                       |

3. The Head of AAIG-BD shall exercise his authority to define the composition of an 'Accident Investigation Team' (AAIT), comprising of either from the AAIG-BD panel, partly or wholly, and/or from a 'Pool of suitable Investigators' from various disciplines, that should stand largely variable, to conduct such investigation.

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সদর দপ্তর  
সিভিল এভিয়েশন অথরিটি, বাংলাদেশ



Headquarters  
Civil Aviation Authority, Bangladesh

- Accordingly, the Head of AAIG-BD will sign 'Memorandum' depicting the 'Terms of Reference' and the 'Conduct' of Investigation. He will issue and circulate 'Notifications', Circulars, Orders, Advices and any similar instruction related to Aircraft Accident Investigation only.
- The 'Accident Investigation Team', thus formed, shall follow the instructions outlined in the 'Memorandum' while remaining well connected with the AAIG-BD during the conduct of the investigation.
- All Air Operators, Air Service Providers any informer, as the case may be, are advised to contact and correspond with the AAIG-BD at the earliest possible means and during the process of investigation following any occurrence of Incident, Serious Incident and/or Accident of Aircraft in the territory of Bangladesh and/or as specified in Para 2 above.
- In case of absence of the Head of AAIG-BD, the Deputy Head of AAIG-BD will be empowered to perform all the responsibilities as Head of AAIG-BD.



PART-H  
EVIDENCES RELATED TO  
AIRCRAFT ACCIDENT INVESTIGATION



8. This 'OFFICE ORDER, 01/AAIG-BD' is hereby issued on 'Public Interest' for information and necessary adherence by all concerned with immediate effect.

**Air Vice Marshal Ehsanul Gani Choudhury, GUP, ndu, psc**  
Chairman  
Civil Aviation Authority, Bangladesh

❖ Copy for information, dissemination to all associated personnel and for necessary action (Internal):

1. All Members (Ops & Plan, Finance, Admin), CAAB
2. Chief Engineer, CAAB
3. All Directors, CAAB
4. All Airport Managers & Service Providers, CAAB
5. All Officials of the Directorate of FSR, CAAB
6. All Officials of the AAIG-BD Panel, CAAB
7. P.S to Chairman, CAAB

❖ Copy for information, dissemination to all associated personnel and for any necessary action (External):

1. Regional Director, ICAO Asia Pacific Office, Bangkok, Thailand.
2. All CEOs/MDs/Country Managers/Station Managers of all Air Operators operating in Bangladesh;
3. Heads of Air Transport Service Providers in Bangladesh;
4. P.S to Secretary, Ministry of Civil Aviation and Tourism, Govt. of the Peoples' Republic of Bangladesh;
5. P.S to Secretary, Ministry of Home Affairs, Govt. of the Peoples' Republic of Bangladesh;
6. P.S to Secretary, Ministry of Disaster Management and Relief, Govt. of the Peoples' Republic of Bangladesh;
7. P.S to Secretary, Ministry of Information, Govt. of the Peoples' Republic of Bangladesh;
8. P.S to the Chief/DG of Bangladesh Army, Navy, Air Force, BGB and RAB.



PART-H  
EVIDENCES RELATED TO  
AIRCRAFT ACCIDENT INVESTIGATION



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## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



### 6. LIST OF APPROPRIATELY QUALIFIED PERSONNEL IDENTIFIED AND CHARGED WITH AIRCRAFT ACCIDENT AND SERIOUS INCIDENT INVESTIGATION DUTIES

The Head of AAIG-BD has tabulated as in Table-1 and Table-2 below the names courses done and experiences gathered of the Investigators who have participated in Serious Incident and/or Accident Investigations at different times. Based on the theoretical and practical knowledge gained, the undersigned as the Head of AAIG-BD, has tabulated below (Table-3) the list of appropriately qualified accident investigators designated in terms of 'Full-time', 'Part-time' and Seconded investigators.

**TABLE-1**

| SL | NAME & POSITION OF AAIG-BD INVESTIGATORS       | COURSES DONE WITH CERTIFICATES   | PARTICIPATED AS (POSITION) | NUMBER OF INVESTIGATION | RELATED AIRCRFAT WITH TYPE OF OCCURRENCE |
|----|--|--|----------------------------|-------------------------|--|
| 1. | Capt Salahuddin M Rahmatullah, Head of AAIG-BD | Basic Aircraft Accident Investigation Course   | IIC of AAIT                | 01                      | B777 Serious Incident                    |
|    |  |  |                            | 01                      | ATR 72 Serious Incident                  |
|    |  |  |                            | 02                      | DHC 8 Q-400 Serious Incident             |
|    |  |  |                            | 01                      | Cessna 152 Fatal Accident                |
|    |  |  | Member of AAIT             | 01                      | DC-10-30 Accident                        |
| 2. | Md. Ayub Khan, Member of AAIG-BD               | 1. Basic Aircraft Accident Investigation Course<br>2. Fundamental Aircraft Accident Investigation Course<br>3. Human Factors in Accident Investigation<br>4. Advanced Aircraft Accident Investigation Course | Member of AAIT             | 01                      | DC-9-83 Serious Incident                 |
|    |  |  |                            | 01                      | MD 600 Serious Incident                  |
| 3. | Mohammad Shafiul Azam, Member of AAIG-BD       | 1. Basic Aircraft Accident Investigation Course<br>2. Fundamental Aircraft Accident Investigation Course<br>3. Advanced Aircraft Accident Investigation Course   | Member of AAIT             | 01                      | B777 300ER Serious Incident              |
|    |  |  |                            | 01                      | B777 200 Serious Incident                |
|    |  |  |                            | 01                      | B767 Serious Incident                    |
|    |  |  |                            | 01                      | DC-9-83 Serious Incident                 |
|    |  |  |                            | 01                      | R66 Fatal Accident                       |
|    |  |  |                            | 01                      | Cessna-152 Accident                      |





## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



|    |   |  |                |    |                                 |
|----|---|--|----------------|----|---------------------------------|
| 4. | Mr Ananda Mandal<br>Member Secretary-2 of<br>AAIG-BD  | 1. Basic Aircraft Accident<br>Investigation Course<br>2. Advanced Aircraft<br>Accident Investigation<br>Course | Member of AAIT | 01 | DHC 8 Q-400<br>Serious Incident |
| 5. | Nirjhor Debonath,<br>Member Secretary-2 of<br>AAIG-BD | 1. Basic Aircraft Accident<br>Investigation Course   | Member of AAIT | 01 | B777-300ER<br>Serious Incident  |

TABLE-2

| SL | NAME & POSITION OF<br>OTHER<br>INVESTIGATORS                 | COURSES DONE WITH<br>CERTIFICATES               | PARTICIPATED<br>AS (POSITION) | NUMBER OF<br>INVESTIGATION | RELATED<br>AIRCRAFT<br>WITH TYPE OF<br>OCCURRENCE |
|----|--|---|-------------------------------|----------------------------|---|
| 1. | Air Cdr Mostafizur<br>Rahman,<br>Member OPS & PLNG           | Basic Aircraft Accident<br>Investigation Course | IIC of AAIT                   | 01                         | R66 Fatal<br>Accident                             |
|    |  |   |                               | 01                         | AN-26B Fatal<br>Accident                          |
| 2. | Capt Akram Ahmed<br>(BU)<br>Senior Consultant &<br>FOI, CAAB | Basic Aircraft Accident<br>Investigation Course | IIC of AAIT                   | 01                         | DC-9-83 Serious<br>Incident                       |
|    |  |   |                               | 01                         | B777-300ER<br>Serious Incident                    |
| 3. | Capt Mushtaque Ali<br>Senior Consultant &<br>FOI, CAAB       | Basic Aircraft Accident<br>Investigation Course | IIC of AAIT                   | 01                         | Boeing 777<br>Serious Incident                    |
|    |  |   |                               | 01                         | DC-10-30<br>Accident                              |
|    |  |   |                               | 01                         | ATR 72 Accident                                   |
|    |  |   |                               | 01                         | Cessna 152<br>Fatal Accident                      |
| 4. | Capt Fariduzzaman,<br>Senior Consultant &<br>FOI, CAAB       | Basic Aircraft Accident<br>Investigation Course | IIC of AAIT                   | 01                         | B777-200<br>Serious Incident                      |
|    |  |   | Member of AAIT                | 01                         | AN-26B Fatal<br>Accident                          |



## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



|     |  |   |                |    |                                |
|-----|--|---|----------------|----|--------------------------------|
| 5.  | Capt Ashraful Azhar,<br>Senior Consultant &<br>FOI, CAAB | Basic Aircraft Accident<br>Investigation Course | IIC of AAIT    | 01 | Cessna-152<br>Accident         |
| 6.  | Capt Abu Zafar,<br>DFOI, CAAB                            | Basic Aircraft Accident<br>Investigation Course | Member of AAIT | 01 | R66 Fatal<br>Accident          |
| 7.  | Dr. Abdul Khaleque,<br>Medical Assessor,<br>CAAB         | Basic Aircraft Accident<br>Investigation Course | Member of AAIT | 01 | R66 Fatal<br>Accident          |
|     |  |   |                | 02 | Cessna-152<br>Accident         |
|     |  |   |                | 01 | AN-26B Fatal<br>Accident       |
| 8.  | Prashanta Kumar<br>Chakrabarty,<br>DD (AT)               | Basic Aircraft Accident<br>Investigation Course | Member of AAIT | 01 | B777-200<br>Serious Incident   |
| 9.  | Mohammad Abu<br>Sayeed,<br>DD (AELD), CAAB               | Basic Aircraft Accident<br>Investigation Course | Member of AAIT | 01 | B777-300ER<br>Serious Incident |
|     |  |   |                | 01 | B767 Serious<br>Incident       |
| 10. | Md. Saiful Haque Shah,<br>AD (AELD), CAAB                | Basic Aircraft Accident<br>Investigation Course | Member of AAIT | 01 | AN-26B<br>Fatal Accident       |
|     |  |   |                | 01 | MD 600                         |
| 11. | Mr Abdul Kadir,<br>Inspector of Aircraft                 | Basic Aircraft Accident<br>Investigation Course | Member of AAIT | 01 | ATR-72-212<br>Serious Incident |
| 12. | Md. Ataullah Hashmi,<br>Inspector of Aircraft            | Basic Aircraft Accident<br>Investigation Course | Member of AAIT | 01 | Cessna-152<br>Fatal Accident   |
|     |  |   |                | 01 | R66 Fatal<br>Accident          |
| 13. | M. A. Kalam<br>Consultant & CSI,<br>CAAB                 | Basic Aircraft Accident<br>Investigation Course | Member of AAIT | 01 | B777-200<br>Serious Incident   |

**TABLE-3**

| SL | FULL-TIME INVESTIGATORS                               | SL | PART-TIME INVESTIGATORS                             | SL | SECONDED INVESTIGATORS                                 |
|----|---|----|---|----|--|
| 01 | Capt Salahuddin M<br>Rahmatullah<br>Head of AAIG-BD   | 01 | Capt Mushtaque Ali<br>Senior Consultant & FOI, CAAB | 01 | Air Cdr Mostafizur Rahman,<br>Member OPS & PLNG        |
| 02 | Md. Ayub Khan,<br>Member of AAIG-BD                   | 02 | Capt Fariduzzaman,<br>Senior Consultant & FOI, CAAB | 02 | Capt Akram Ahmed (BU)<br>Senior Consultant & FOI, CAAB |
| 03 | Mohammad Shafiul Azam,<br>Member of AAIG-BD           | 03 | Capt Abu Zafar,<br>DFOI, CAAB                       | 03 | Dr. Abdul Khaleque,<br>Medical Assessor, CAAB          |
| 04 | Mr Ananda Mandal<br>Member Secretary-2 of AAIG-<br>BD | 04 | Mohammad Abu Sayeed,<br>DD (AELD), CAAB             | 04 | M. A. Kalam<br>Consultant & CSI, CAAB                  |



## PREAMBLE AIRCRAFT ACCIDENT INVESTIGATION



|    |  |    |  |    |   |
|----|--|----|--|----|---|
| 05 | Nirjhor Debonath, Member<br>Secretary of AAIG-BD | 05 | Md. Ataulah Hashmi, Inspector<br>of Aircraft | 05 | Md. Saiful Haque Shah,<br>AD (AELD), CAAB |
|----|--|----|--|----|---|

The Investigator List outlined in Table-3 shall come into force with effect from 05 May 2017.

Capt Salahuddin M Rahmatullah  
Head of AAIG-BD  
Civil Aviation Authority, Bangladesh  
Cell: +88 01715 027 508  
[SMRahmatullah2148@gmail.com](mailto:SMRahmatullah2148@gmail.com);  
[Head.AAIG@caab.gov.bd](mailto:Head.AAIG@caab.gov.bd)  
[smr@bdcom.net](mailto:smr@bdcom.net)