



**INITIAL RESPONSE INVESTIGATION PROCEDURES (IRIP)
FOR AIRCRAFT ACCIDENTS AND
SERIOUS INCIDENTS**

AIR NAVIGATION ORDER

VERSION : 1.1
DATE OF IMPLEMENTATION : 09-06-2011
OFFICE OF PRIME INTEREST : Safety & Investigation Board

	NAME	DESIGNATION	SIGNATURE
PREPARED BY	Group Captain SARDAR MUHAMMAD ILYAS	GM Technical SIB	
REVIEWED BY	Air Commodore KHAWAJA A. MAJEED	President SIB	
VERIFIED BY	MR NISAR AHMED BROHI	A/Chief Legal Services	
APPROVED BY	Air Vice Marshal RIAZ UL HAQ	A/Director General, Pakistan Civil Aviation Authority	
TYPE OF DOCUMENT	AIR NAVIGATION ORDER (ANO).		
STATUS OF DOCUMENT	CONTROLLED		

A. AUTHORITY:

A1. This ANO is issued by the Director General, Pakistan Civil Aviation Authority, in pursuance of Rules 4, 5, 180, 270, 271, 272, 273, 276, 279, 281, 360 and all other enabling provisions of the Civil Aviation Rules, 1994 (CARs, 94).

B. PURPOSE:

B1. The purpose of this ANO is to define initial response / procedure for conducting aircraft accident / serious incident investigation in coordination and collaboration / assistance of various State Departments, agencies / organizations as well as CAA Departments.

C. SCOPE:

C1. This ANO applies to Service Providers, Regulators, all Companies, Organizations and Enterprises including Operators, AOC Holders, Ground Handling Agents, holders of AOC for Regular Public Transport (RPT), Private, Charter and Aerial Aircraft, i.e. involving transportation of passengers, cargo or mail, for remuneration or hire, etc.

D. DESCRIPTION:

D1. DEFINITIONS:

Any term which is used in this ANO shall have the same meaning as given in the Civil Aviation Ordinance 1960, Pakistan Civil Aviation Authority Ordinance, 1982, Civil Aviation Rules, 1994 (CARs, 1994). However, if no such term is defined in the above-mentioned laws, preference would be given to ICAO Annexure 13, accordingly.

D2. PRIME RESPONSIBILITY OF NOTIFYING THE ACCIDENT / SERIOUS INCIDENT:

The responsibility of ensuring that required information of any such accident or serious incident has been communicated to DG CAA and President SIB, SIB Ops Room or any other available investigators of SIB rests with the **ATS** (Duty ATCO, RFC/COO, On-duty Team Leader ACC/Radar Facility), **APM** of the nearest airport to the accident / incident site and the **Operator** concerned. However, this information may be passed through other means to include; Civil Police, Local Rescue Organizations / Ambulances, any other Organization, residents in close proximity of accident and any other persons or eye witness(es).

D3 On receipt of the information with regard to an accident / serious incident by any of the above mentioned sources, the guidelines for executing initial response by various agencies / departments is mentioned in the subsequent paragraphs under respective headings.

D3.1 Following is the contact list of Safety Investigation Board;

Email addresses & Cell Phones

SIB Ops Room email add.	sib@caapakistan.com.pk	
President SIB	psib@caapakistan.com.pk	(Cell 0092 301 8223810)
GM Technical, SIB	sibtech@caapakistan.com.pk	(Cell 0092 302 8274209)
Safety Investigation Coordinator, SIB	sib.shro@caapakistan.com.pk	(Cell 0092 321 3213111)

Offices Telephone / Fax Numbers

SIB Telephone Numbers	0092 21 99242772, 99072641, 99072642, 99072738, 99072646
SIB Fax Number	0092 21 34604305 (24 hours)

D4 ACTIONS BY PRESIDENT SIB:

D4.1 Provide available information of occurrence to DG CAA.

D4.2 Re-confirm with ATCO / RFC and APM of nearest Airport for the information of accident / serious incident, and advice him to execute search and rescue operation and collect all related information which must be passed on to President SIB and SIB Ops Room in detail.

D4.3 Re-confirm with the Operator for the information received, and advice him to activate Emergency Response Plan (ERP), initiate and participate in search and rescue operation, and pass on detailed information to SIB.

D4.4 Issue initial detailing of IIC and investigation team members for undertaking possible investigation into the accident / serious incident.

D4.5 Forward proposed investigation team / panel to DG CAA for issuance of necessary notification of investigations.

D4.6 Direct the Safety Investigation Coordinator SIB or Supdt SIB for activating SIB Ops Room and executing respective actions.

D4.7 In case additional technical help / assistance is needed, DFS, DAW, D Ops, Dir AS, GM Aero Medical, any other CAA Directorate, etc., may be contacted by PSIB for their prompt assistance.

D4.8 Inform further details of the accident / serious incident and intended course of action to DG CAA.

D4.9 Coordinate with the accredited representative(s) for their appointment in accordance with the provisions of CARs-94 and Annex-13 requirements.

D4.10 On receipt of initial investigation report from IIC, put up same to DG CAA and brief him on immediate safety measures, if suggested by IIC.

D4.11 Manage the entire aircraft accident / serious incident investigation process.

D5 DG CAA:

D5.1 On receiving the information, liaise with Chairman NDMA and local administration to initiate and facilitate "Search and Rescue Operation" and medical aid to the victims. At the same time direct PD AS / APM / CAA offices to activate Airport Emergency Plan (AEP), enhance facilitation efforts at the concerned airports and provide guidelines for possible media response / handling.

D5.2 Issue necessary notification for the conduct of investigation as per Rule 273 CARs 1994 considering the proposal received from PSIB. In case of accident involving serious injury or death, the Director General CAA shall obtain the approval of Federal Government for such appointments.

D6 ACTIONS BY PD (APS) / APM OF NEAREST AIRPORT TO ACCIDENT/SERIOUS INCIDENT:

D6.1 APM of the nearest Airport to the accident / serious incident site will immediately notify the occurrence of accident / serious incident and its details to PSIB, SIB Ops Room or SIB Investigator available / nominated for this purpose. This notification must be immediately passed on through telephone / Cell phone at the office or residence of President SIB / Investigators In-charge. The notification should contain the information laid down in the format placed at **Appendix 'A'** to this ANO (ANO-003-SBXX-1.0). If complete detail is not instantly available, the notification must so state and a supplementary report containing all the necessary details / particulars, not included in the first report, shall be furnished at the earliest possible timeframe.

D6.2 APM will be responsible to exactly locate the accident site, coordinate with local administration and authorities for executing effective Search and Rescue operations, protection of accident site, aircraft wreckage / evidences, and maintenance of law and order situation at the accident site. The crash site is to be declared in the custody of President SIB / IIC.

Note-1: The wreckage is not to be removed or tampered with except to the extent necessary for rescue of occupants or for operational reasons. In incidents where an aircraft has been or has to be stopped on the runway or in close proximity of the runway such that it is obstructing other Air Traffic, priority should be accorded to:

- A) Safe disembarkation / evacuation of passengers.
- B) Removal of the aircraft from the air traffic path as soon as possible.

Note-2: In some cases, vital evidence is likely to be lost during expeditious removal of any aircraft. As such, it is most appropriate to obtain prior clearance from President SIB / IIC if he can be readily contacted, before such removal takes place.

D6.3 To coordinate with City / Military / Medical Administrations to initiate and conduct Search and Rescue Operation. Have the accident / incident site cordoned and secured. Local Police Authorities should then be handed over the responsibilities of managing the wreckage site.

D6.4 To execute Airport Emergency Plan (AEP) at the airport, and assist in establishing Emergency Response Plan (ERP) being managed by the Operator. ERP is to be well coordinated with AEP and to work in synergy.

D6.5 Ensuring that Search and Rescue has the priority, APM will coordinate with Medical, and City / Military Administrations and arrange to provide prompt medical assistance to the injured persons in accordance with the procedure established by him earlier in his pre-accident plan/Airport Emergency Plan (ERP).

D6.6 To detail one of the Authorised Medical Officers in consultation with GM Aero Medical, who is on the CAA panel for medical examination, and to collect blood and urine samples of cockpit crew within two hours of the occurrence, and have these sent immediately to the nearest recognized and CAA approved laboratory for analysis. Blood samples are to be analysed for lactic acid, alcohol and carbon mono-oxide intoxication, and urine samples for sugar, barbiturate and if possible opiates intoxication.

D6.7 To arrange for immediate sending of the dead bodies, if any, to the nearest approved hospital for autopsy without waste of time. Dead body (bodies) will be handed over to relatives only after clearance has been obtained from the Aviation Medical Specialist in coordination with the Operator and existing CAA / Police procedures.

D6.8 To coordinate and make arrangements to guard the Crash Site and the wreckage till no longer required for investigation purposes and having been cleared by the PSIB or Investigation-Incharge. Wreckage is to be protected against further damage, loss / misplacement, animals or any such other elements. He is to place required signs and demarcations for public awareness. Later, local Police authorities be handed over the responsibilities of managing the crash site with required briefing and guidelines. Crash site and wreckage would remain under the custody of PSIB/IIC.

D6.9 To take into his custody the Flight Data Recorder, Cockpit Voice Recorder and any such equipment installed in the aircraft from the wreckage / accident site for handing over to PSIB or IIC.

D6.10 To collect and seal all the documents relating to the aircraft maintenance and operations including log book etc., available at the Airport in co-ordination with Airworthiness field office and handover them to PSIB or IIC on their arrival.

D6.11 To arrange for necessary video recordings and photography of the evidence (without sharing these with any other organizations), which in his opinion may be lost before the arrival of the investigation team or due to ongoing Search & Rescue efforts.

D6.12 To prepare a list of the witnesses with contact information, who in his opinion may provide useful information in connection with the investigation indicating where they can be contacted. This list along with other documents is to be handed over to the PSIB or investigator-in-charge on his arrival.

D6.13 To ensure details of any dangerous goods onboard (the mishap aircraft) is determined and rescue workers, wreckage handlers and investigators are duly informed to exercise extreme caution in accordance with Occupational Health and safety applicable to aircraft accident investigations.

D6.14 APM to provide required administrative support to the investigation team, including establishment of Base Camp in the closest proximity of Crash Site. Base Camp is to be adequately resourced and equipped with stationary items, transportation, office accommodation (at least 03 rooms), kitchenette, retiring and rest rooms etc. Camp Office will be provided with adequate security measures.

D6.15 On arrival of President SIB/IIC and the investigation team, APM will brief them about the details of actions taken and coordination efforts made with Civil / Military and Medical administrations.

D7 ACTIONS BY SAFETY INVESTIGATION COORDINATOR SIB:

D7.1 Activate SIB Ops Room with adequate resources (as per existing contingency plan already prepared by him) in maximum of **ONE HOUR** from the time such information is received. Open a dedicated register to record all related log of activities / diary of actions.

D7.2 Establish contact with President SIB for seeking guidance on future course of action / modalities, etc.

D7.3 Prepare a draft of proposed notification for President SIB to be put up for the approval of DG CAA. After having received approval from the Director General in respect of persons to be appointed as investigators, the Safety Investigation Coordinator SIB will circulate the memorandum to all concerned.

D7.4 Make travel arrangements and prepare individuals' back pack & crash kitbags for the investigation team and other necessary arrangements as directed by PSIB / IIC.

D7.5 Arrange to provide required Crash Kit(s) and Personal Protective Clothing to ensure safe operations in accordance with Occupational Health and safety applicable to aircraft accident investigations.

D7.6 Collect information and all possible details from ATS, the concerned APM, the concerned Operator and brief the investigation team members on their contact or arrival at SIB Ops Room. All the information is to be maintained in separate and dedicated Docket marked with CONFIDENTIAL classification and the title of the investigation.

D7.7 Remain in close coordination with APM concerned to ensure all administrative arrangements are made as per the direction of President SIB and IIC.

D7.8 He will arrange to take into immediate custody the Aircrew documents, Medical documents and Tech Log Books from the Head Offices of the Operator.

D7.9 In case of non availability of Safety Investigation Coordinator, the Superintendent SIB / Supervisor Investigation shall discharge his responsibilities.

D8 ACTIONS BY GENERAL MANAGERS AERO MEDICAL & MEDICAL MANAGEMENT:

D8.1 **GM Aero Medical**, CAA is to provide required guidance to APM in ensuring successful conduct of Autopsy and Medical examinations of Flight Crew, as applicable. In this regard, he will coordinate with Medical and Police authorities to ensure accomplishment of Autopsy / Medical examination as per procedures devised earlier by him.

D8.2 The GM Aero Medical will also keep PSIB / IIC well informed with regard to the conduct of autopsy / medical examination of Flight Crew to be carried out on the dead bodies involved in an accident in the shortest possible time.

D8.3 The GM Aero Medical will make himself available in person or on telephone as is required by the situation to provide guidance, should it be required at any stage to handle / count injured / dead. He will remain in close liaison with Search & Rescue Teams and Hospitals for the above-mentioned purposes.

D8.4 The GM Aero Medical will nominate an Aviation Medical Specialist to participate in the investigation, if and when considered necessary by President SIB / IIC.

D8.5 **GM Medical Management** will coordinate and approach concerned Medical Centres / Hospitals / Rescue Agencies (already planned and worked out) for providing all necessary assistance and ensuring appropriate handling of those injured and dead.

D9 ACTIONS BY THE OPERATORS:

D9.1 Operators are to intimate Aircraft Initial Occurrence report to PSIB and / or SIB Ops Room, or any other SIB investigator who can be contacted on telephone / cell phone, fax as early as possible without any delay, later on submit the said report in writing to SIB Ops Room or HQ SIB within shortest possible time and means.

D9.2 To pass on crew information, passengers list and details of cargo and dangerous goods on board the aircraft. Operator is also to ensure that necessary medical examination of crewmembers is undertaken within two hours of the occurrence, and in case of fatalities, Operator is to ensure that in coordination with GM Aero medical, autopsy is conducted before handing over the bodies of crewmembers.

D9.3 To setup and execute Emergency Response Plan (ERP) in coordination with APMs concerned and inline with CARs-94 and ICAO SARPs in the shortest possible time.

D9.4 To remain in close coordination with President SIB and IIC for sharing all information on priority basis as well as to provide complete support and reciprocal professional assistance in facilitating entire investigation process, including arrangements of simulation / trial and observation flights.

D9.5 As and when required by PSIB / IIC, Operators through its Technical Assistance Team is also to assist in quickly locating and identifying the flight recorders.

D9.6 Operators to ensure safe and orderly shifting and transportation of the wreckage from crash site, and assist in wreckage reconstruction into aircraft configuration, if deemed necessary by PSIB / IIC.

D9.7 To detail Technical Assistance team including technical and operations personnel to work in close coordination with the investigation team as may be required at the crash site as well as later on during the investigations.

D9.8 To coordinate with President SIB and IIC before launching relief flight to the nearest airfield for accommodating investigation team members etc, if so deemed to be required by President SIB and IIC.

D10 ACTIONS BY INVESTIGATOR INCHARGE:

D10.1 After appointment, the Investigator Incharge will establish contact with APM and Operator for obtaining details about the accident / serious incident. He will commence investigation process as per the provisions of CARs 1994, ANO.001-SBXX-1.0 and ICAO Annex-13.

D10.2 IIC will assemble all his investigators at HQ SIB (Ops Room / Conference Room) and brief them on the available details of the accident / serious incident and future course of action as well as administrative arrangements being made for the team.

D10.3 He will ensure all required arrangements for the transportation of the investigation team through Safety Investigation Coordinator SIB and the nearest Airport Manager are in order of their availability.

D10.4 IIC on arrival at the accident site will take into custody the wreckage, Flight Recorders, aircraft documents / records, Aircrew Documents / Training Records, ATC / Radar Recordings, Oil / Fuel Samples etc, if not done by APM.

D10.5 IIC will also coordinate, if required, with DFS, DAW, D Ops and any other CAA Dtes to assign responsibility concerning investigation process.

D10.6 He will arrange to supplement the efforts for digital photography and video(s) to be taken of the wreckage.

D10.7 The IIC will direct the investigation team members to expeditiously look for Flight recorders, if not yet located, and any such equipment. Having found the Flight Recorders, IIC will make expeditious arrangements for its download and subsequently analysis of downloaded data. While planning the download of data from Flight Recorders, IIC is to consider the Guidelines for the flight recorders readout and analysis provided in Attachment D of ICAO Annex 13.

D10.8 He will caution all investigators / rescuers for the presence and hazards of Dangerous goods, if any, in accordance with Occupational Health and safety applicable to aircraft accident investigations.

D10.9 He will also ensure investigation team members are adequately equipped with crash kits and Personal Protective Clothing etc.

D10.10 The IIC would ensure that various parts of wreckage are properly located, identified and tagged, and the wreckage diagram is made and all the evidences are preserved / recorded in the first available opportunity.

D10.11 He will ensure that protection of crash site is done satisfactorily.

D10.12 Concerned agencies, if the need arises, will be invited by IIC to carryout wreckage sampling test for determining traces of explosives, dangerous good etc.

D10.13 He will ensure establishment of Camp Office near the scene of accident. Preference will be given to a place where telephone and communication facility is available, at least transportable track is available in close vicinity. Camp Office is to be adequately resourced, equipped and secured.

D10.14 He will take into his possession all documents related to the aircraft operations in addition to collecting documents from the Airport Manager concerning ATC communications and documents / tape.

D10.15 After arriving at the scene of accident he will, at the first opportunity, inform the PSIB and DG CAA about his initial investigation and possible indication of cause(s).

D10.16 He is to conduct daily update meetings with his team members in the evening on daily basis for as long as required, to ascertain and determine correct direction of investigation.

D10.17 He is to keep making field notes by him and emphasise on his team members for doing the same meticulously. Information / evidences collected by investigators is to be shared amongst the investigation team members promptly during daily meetings. If required by President SIB or Federal Govt, IIC is to prepare for PSIB the brief for releasing it to media personnel etc.

D10.18 IIC will invite Accredited Representatives from the countries as per the provisions of CARs 1994 and ICAO Annex 13 to participate in the investigations. He will also ensure that necessary notifications have been sent to the countries including ICAO in accordance with the provisions of CARs 1994 and ICAO Annex 13

D10.19 On conclusion of initial wreckage study, analysis of witnesses and review of available evidences including ATC & Radar recordings, IIC is to prepare initial report along with immediate safety measures, if required, for President SIB.

D10.20 At the completion of investigation, he will prepare a final investigation report in the standard format as per CARs 1994 and ICAO SARPs.

D10.21 **Non-Disclosure of Records:** IIC / PSIB will ensure non-disclosure of certain records for purpose other than accident or incident investigation. In this regard no records / information regarding investigation of an accident or incident shall be disseminated / disclosed at any stage of investigation. Records / information not to be disseminated / disclosed include:

- a) All statements taken from persons by the investigation authorities in the course of their investigation.
- b) All communications 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
- f) Cockpit airborne image recording and any part or transcripts from such recordings; and
- g) Opinions expressed in the analysis of information, including flight recorder information.

D11 ACTIONS BY PD (REGULATORY), HQ CAA:

D11.1 The Flight Standard Inspectors and Technical Officers of the field offices of Airworthiness Dte. Would be spared on the verbal or written requirement of President SIB and IIC to PD Reg. for utilisation as investigators in their respective domains and regions.

D11.2 He will direct his field officers to coordinate with the President SIB and respective Airport Manager to take into safe custody all documents in respect of an aircraft / helicopter involved in an accident and handover those to PSIB / IIC.

D11.3 He will also direct various Directorates to provide technical data and reports, as and when required by President SIB and IIC.

D12 ACTIONS BY PD (AIR NAVIGATION SERVICES) / DIRECTOR OPERATIONS, HQ CAA:

D12.1 PD (ANS) / Dir Operations is to ensure that ATS personnel are aware of their responsibility of passing prompt information of occurrence of accident / incident to PSIB, SIB Ops Room or any SIB investigator. On receipt of information regarding aircraft accident or serious incident, PD (ANS) / Director Operations is to direct concerned official to declare recording spools of ATC communications, Radar picture and hot line

communication out of bound for all, except PSIB and IIC. He is to ensure nobody other than PSIB / IIC has access to it, whatsoever.

D12.2 Records like Diary of Action, Log Books, ATS communication, Hot line communications, Weather report and other documents relating to the occurrence held by ATS and/or any concerned Dte. / Branch will also be sealed for handing over to PSIB / IIC.

D13. SECONDED EXPERTS AND INVESTIGATORS

D13.1 Due to shortage of technical human resource and increased activity at SIB, part time investigators / experts may be called upon to assist / participate in investigation being conducted at SIB. Whenever, such investigators required to be seconded or attached from CAA Directorates or any AOC holder / Operators of Pakistan Aviation Industry to SIB, a formal notification would be issued by DG CAA / PSIB. In order to avoid any possible conflict of interest, following is to be ensured by concerned CAA Directorate and AOC holder / Operator:

- a) The individual will be relieved immediately by parent Directorate / Organization and would remain attached with SIB till the completion of Investigation.
- b) Any leave etc, will be granted by the parent Directorate / Organization with the prior consent of PSIB/IIC.
- c) On completion of investigation PSIB / IIC will raise Special Performance Report for the appraisal of DG CAA.
- d) The individual attached will be under solemn affirmation for safeguarding investigation information.

D14. FUNDING

D14.1 DGCAA will allocate **budgetary provisions** in the departmental budget of Safety Investigation Board at the disposal of President SIB to independently conduct investigation of accidents / incidents as well as other functions such as the examination / testing / analysis of aircraft equipment / parts, wreckage shifting, Ops, repair and maintenance of investigation / analysis equipment, etc. Allocated amount shall be utilised as per the CAA Delegation of Administrative and Financial Powers outlined in Administrative and Financial Power Manual. The allocated money shall not be utilised for any purpose other than activities mentioned above.

D14.2 The DGCAA will also provide **supplementary funding** in the consolidated budget for SIB for accident investigation when required for major accidents and this fund too should be readily available at the disposal of President SIB as and when requested through separate approval.

D15. OBJECTIVE OF INVESTIGATIONS:

D13.1 The sole objective of the investigation of an accident and incident conducted by Safety Investigation Board, Pakistan Civil Aviation Authority shall be the prevention of the accidents and incidents, and not apportioning blame or liability.

E. EVIDENCES (ACRONYMS / RECORDS / REFERENCES):

E1. ACRONYMS:

ACC	Accident (as defined in Chapter 1 of ICAO Annexure 13)
ANO	Air Navigation Order
AOC	Air Operator Certificate
CARs 94	Civil Aviation Rules 1994
DG CAA	Director General Civil Aviation Authority

ICAO	International Civil Aviation Organization
PCAA	Pakistan Civil Aviation Authority.
PSIB	President Safety & Investigation Board
D. Ops	Director Operations
SARPs	Standards & Recommended Practices
PD (Reg)	Principal Director (Regulatory)
IIC	Investigation Incharge
APM	Airport Manager
AEP	Airport Emergency Plan
ERP	Emergency Response Plan
ATCO	Air Traffic Controller Officer
ATC	Air Traffic Controller
RFC	Radar Facility Chief
COO	Chief Operations Officer

E2. RECORDS:

E2.1 Nil

E3. REFERENCES:

E3.1 CARs, 94

E3.2 ICAO Annex – 13

E3.3 ANO-001-SBXX-1.0

E3.4 SIB Procedures Manual

IMPLEMENTATION:

This Air Navigation Order shall be implemented with effect from 10 June 2011.

Dated: - 10 June 2011

(RIAZ UL HAQ)
Air Vice Marshal
A/Director General
Pakistan Civil Aviation Authority

(KHAWAJA A MAJEED)
Air Commodore
President SIB
Dated- 10 June 2011
File No. HQCAA/1904/31/SIB