



Islamic Republic of Afghanistan
Civil Aviation Authority

CONDUCT OF AN INCIDENT INVESTIGATION

Afghanistan Civil Aviation Directive
(CAD)

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Airworthiness

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0 Administration and Control

The following list contains key abbreviations used in this document, as well as others likely to be in common use in the respective area.

0.1 Abbreviations

ACAA	Afghan Civil Aviation Authority
ACC	Airport Control Center
AME	Aviation Medical Examiner
AT	Air Traffic
SDIA	Safety Deficiencies and Incident Analysis

0.2 Record of Revision

The table below provides a record of amendments.

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1 Definition

1.1 Aircraft Accident

An occurrence associated with the operation of an aircraft that:

- Takes place between the time the first person boards the aircraft with the intention of flight and the last person has disembarked.
- Results in death or serious injury.
- Causes substantial damage to the aircraft.

1.2 Aircraft Incident

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

1.3 Serious Injury

An injury that:

- Requires hospitalization for more than 48 hours, within 7 days from the date an injury was received.
- Results in a fracture of any bone (except simple fractures of fingers, toes, or nose).
- Causes severe hemorrhages, and/or nerve, muscle, or tendon damage.
- Involves second or third degree burns, or burns affecting more than 5 percent of the body surface.
- Involves damage to any internal organ.

1.4 Substantial Damage

Damage or failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component.

- For the purpose of this task, exceptions to this definition includes:
 - Engine failure or damage limited to an engine.
 - Bent fairings or cowling.
 - Dented skin or small puncture holes in the skin or fabric.
 - Ground damage to rotor or propeller blades.
 - Damage to landing gear, wheels, brakes, tires, flaps, engine accessories, or wing tips.
- Aviation Safety Inspectors are urged to fully consider all aspects of these exceptions before making a final “substantial damage” determination that would classify the occurrence as an incident.



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2 Purpose

This Section provides guidance for conducting an incident investigation.



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3 General

A pre-incident plan should be developed by the Safety Deficiencies and Incident Analysis Unit (SDIA Unit) of ACAA and should reflect specific requirements (e.g., staffing, resources, etc.). The success of an incident investigation often depends on how well the pre-incident plan is kept current, rehearsed, and carried out.



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4 Responsibilities

4.1 ACAA Responsibilities

ACAA incident investigation responsibilities include the following:

[1] To ensure that:

- All facts and circumstances leading to the incident are recorded and evaluated.
- Actions are taken to prevent similar incidents in the future.

[2] To determine if:

- There was a violation of the Afghan Civil Aviation Regulations
- The performance of ACAA facilities or functions was a factor
- The airworthiness of aircraft was a factor
- The competency of ACAA certificated airmen, approved maintenance Organizations, Air Operator Certificate holders, or airport was a factor.
- The Afghan Civil Aviation Regulations were adequate.
- The airport certification safety standards or operations were involved.
- The operator/airport security standards or operations were involved.
- Airmen medical qualifications were involved.

4.2 Investigator-In-Charge's Responsibilities

The ACAA will at all times have an Investigator-In-Charge designated by the Director, Airworthiness Standards as the principal representative. The Designation as Investigator-In-Charge constitutes that person's authority to Procure and utilize the services of all needed ACAA personnel, facilities, Equipment and records.

The Investigator-In-Charge directs and controls all ACAA participation until the incident investigation is complete. During the assignment as Investigator-In-Charge, responsibility is direct to the Director, Airworthiness Standards.

4.3 ACAA Participant Responsibilities

Participants are accountable to the Investigator-In-Charge in all matters Related to the investigation. Participants cannot withdraw from the Investigation without the Concurrence of the Investigator-In-Charge. Participants will submit reports when requested by the Investigator-In-Charge.

Participants will not supply information or reports to any person except with the full knowledge and consent of the Investigator-In-Charge.

Personnel representing the ACAA organizational element authorized access to the incident scene are subject to the requirements of paragraph (1) and (2) Above. These personnel must provide the Investigator-In-Charge with Reproducible copies of all reports that they have prepared or received during the investigation.



ACAA personnel not specifically assigned as participants or support Personnel are not permitted at the scene of an accident/incident without the Knowledge and consent of the Investigator-In-Charge.

4.4 Other Agency or Organization Responsibilities

Air Traffic Managers are responsible for the investigation and reporting of Incidents that involve only air traffic function (e.g., operational errors/deviations).

The Investigator-In-Charge must determine the extent of investigation Necessary before requesting an Air Traffic package. When Air Traffic Provides notification of an incident, the Director, Airworthiness Standards will inform the reporting facility of the final disposition of the Incident.

When Air Traffic personnel or facilities are involved, the Investigator-In-Charge will afford such parties an opportunity to provide comment and will indicate on the report that this opportunity was given.

The Airports Authority will be notified by the Investigator-In-Charge when Functions of those offices are involved in the incident.



5 Types of Incident Investigations

The type of incident refers to the immediate circumstances of the incident, not the cause. The following are some of the different classifications that might be encountered:

- Aircraft that have been damaged but do not meet the definitions of an Accident, including the exceptions listed under substantial damage in this Directive.
- Incidents involving military aircraft
- Foreign air operator incidents
- Near midair collisions
- Emergency evacuations
- Parachute jumping
- Reckless flying



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6 Method of Investigation

The type of incident will dictate what action the Investigator-In-Charge should take (e.g., on site investigation, desk audit).

6.1 Desk Audit

The Investigator-In-Charge can usually conduct the entire investigation from the office (desk audit). When specific airman or aircraft data is required during a desk audit, the information should be obtained from the Licensing Officer or the office in charge of aircraft registration.

6.2 On-Site Investigation

Although most incident investigations can be handled by the use of a desk audit, there will be circumstances that require an on-site investigation. The Investigator-In-Charge determines whether an on-site investigation is necessary based on the initial information received regarding the incident. Circumstances that might preclude a desk audit can be based on the following Variables:

- [1] Whether the incident involves aircraft damage
- [2] Whether there was an emergency evacuation
- [3] Whether the Director, Airworthiness Standards dictates the method Base on the following
 - The geographic location
 - The type of incident
 - The depth of the ACAA involvement

6.3 Organizing the Investigation

Organizing an incident investigation is a process that begins with the initial Notification and continues throughout the investigation. There may be Occasion when the Investigator-In-Charge is the only participant in the investigation. In this instance, the Investigator-In-Charge should still formulate a plan that can be followed throughout the investigation.



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7 Post-Notification Activities

7.1 Incident Investigations.

Certain steps have to be taken to initiate an incident investigation. The facilities of an Airport Control Centre (ACC), where one exists, may be used in establishing the necessary contacts and coordination with the following, as applicable:

[1] Law enforcement or airport authorities for:

- Site security
- Information on accessibility of the site and environmental conditions
- Arrangements for local travel to the site, etc
- Nearest Aviation Medical Examiner (AME), for arrangements for Toxicological tests.

[2] Manufacturer, operator, or owner for specific assistance, such as Documents, certificates, data, etc.

[3] Tower facilities for:

- Preliminary information on flight plan and pilot's intent
- Radio communications
- Flight progress reports, etc

[4] Weather service or certified observers for relevant weather information.

7.2 Office Coordination

Coordination will be necessary to ensure that response time to an Incident investigation is done in a timely manner.

Coordination should be established to give local authorities the name Of the Investigator-In-Charge and the expected time of arrival. Before Departing, the Investigator-In-Charge should designate an initial contact Point to which messages can be sent during the transient status.

7.3 Investigation Equipment.

The diversity of aircraft incidents makes it difficult to have all the necessary equipment available. Certain items commonly used in every investigation should be kept in readiness.

7.4 Safety at the Site.

This is an area of vital importance and should be addressed by the Investigator-In charge when planning the investigation activities. Aspects to be considered include both ASI and bystander safety.

[1] The Investigator-In-Charge's responsibility will include planning for the following possible on-site hazards:

- Pressurized systems and components, including hydraulic, pneumatic, and oxygen systems.



- Blowout (explosion) of damaged landing gear tires
- Sharp, jagged pieces of metal
- Reactions of toxic agents present in a fire
- Hazardous agricultural chemicals

[2] Additional consideration to be taken by the Investigator-In-Charge Include the following:

- Delaying the handling of materials if there is the slightest reason to Suspect the presence of hazardous cargo, including radioactive Materials or chemicals. The delay should last until the necessary Checks have been made and the site has been declared safe.
- Taking into account the advice of local experts, such as Aviation Medical Examiners (AMEs), industrial hygienists, surveyors, and law Enforcement personnel, as to the type of protection and precautions Needed in certain terrain
- Ensuring that all personnel use personal protection against possible
- Contamination by communicable disease
- Securing all critical areas to ensure bystander safety

7.5 Pilot Deviations

If the incident involves a pilot deviation or operational error, certified true copies of the following should be requested from the reporting Air Traffic Facility, as applicable:

- Pertinent Air Traffic Centre flight progress strips
- Communication tapes
- Radar printouts

These items should be sent to the Office of ACTING DIRECTOR OF FLIGHT SAFETY as soon as possible so that the Investigator-In-Charge can use them for the investigation. These items will become a part of the final report.

7.6 Analysis Considerations

During the documentation and investigation process certain evidence will require a more detailed examination. The Investigator-In-Charge should be continually evaluating evidence as a possible contributing factor.

7.7 Incident Reports.

The Investigator-In-Charge is responsible for the report.

This report must be submitted after the completion of the investigation and must contain the facts, conditions, and circumstances disclosed by the investigation.

The Office of ACTING DIRECTOR OF FLIGHT SAFETY will determine the accident prevention recommendations from the contents of this report. Therefore, the incident



report must be an accurate reflection of all pertinent data and Reports collected by the ACAA Investigation team.



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8 Witness Statements

If a violation is suspected, there are additional requirements for the handling of witness statement. These requirements include the following:

- If witnesses object to a copy of their statement being used, they must be informed that they may be subpoenaed if enforcement action is taken
- When taking witness statements over the telephone, make an accurate record of the telephone call



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9 Violations

If at any time during the investigation facts are revealed that indicates a possible violation of the Afghan Civil Aviation Regulations, the Investigator-In-Charge must conduct a violation investigation.



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10 Upgrading an Incident to an Accident

If the investigation reveals facts that would indicate an upgrade to an accident, the Investigator-In-Charge must:

- Notify the Director General and Director, Airworthiness Standards
- After the upgrade, proceed with the produced outlined in this Handbook



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11 Prerequisites and Coordination Requirements

[1] Prerequisites

- Knowledge of the Afghan Civil Aviation Regulations
- Successful completion of an Airworthiness Inspectors Indoctrination
- Course or equivalent

[2] Coordination

- This task requires coordination with other operations and airworthiness inspectors and the Director, Airworthiness and Operations Standards.



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12 References

Afghan Civil Aviation Regulations

Technical guidance material

Form ACAF-AIR-018.0-1



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13 Procedures

- 13.1 Receive the Initial Notification.
- 13.2 Record the initial incident information.
 - 13.2.1 If the notification is made by an Air Traffic (AT) facility request the following data:
 - a) Flight progress strips
 - b) Air Traffic Centre tapes
 - c) Radar printouts
 - d) Weather information
- 13.3 If the incident involves an operational error and/or deviation, determine when the Air Traffic facility is going to submit a report.
- 13.4 If notification is made by a source other than an Air Traffic facility, accomplish the following:
 - 13.4.1 Notify the Director, Airworthiness Standards.
 - 13.4.2 Notify the responsible Air Traffic facility and request that certified true copies of the following is submitted:
 - a) Flight progress strips
 - b) Air Traffic Centre tapes
 - c) Radar printouts
 - d) Weather information
- 13.5 Determine the ACAA Involvement in the Investigation.
 - 13.5.1 If the incident does not involve aircraft damage or is an operational error/deviation, determine the most effective method of investigation.
- 13.6 Classify the Occurrence.
 - 13.6.1 Based on the preliminary information, determine whether the occurrence fits the Definition of an incident.
 - a) If the occurrence should be classified as an incident, proceed with the following steps.
 - b) If the occurrence should be classified as an accident, refer to this Handbook
- 13.7 Review the Air Traffic Facility Reports and Other Related Information.
 - 13.7.1 Upon receipt of the requested forms and reports, determine the ACAA involvement in the investigation and review the following for statistical data:



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- a) Location of occurrence
 - b) Time of occurrence
 - c) Weather conditions at time of occurrence
 - d) Other information pertinent to the investigation

13.8 Determine the Method of Investigation.

13.8.1 Base the decision regarding the method of investigation on the information Obtained from the reports and personal judgment.

- a) If an on-site investigation is not necessary, conduct the investigation by telephone.
- b) If an on-site investigation is necessary, organize the investigation accordingly.

13.9 Organize the Incident Investigation.

13.9.1 Organize the incident investigation based on the information received from the reporting facility or person.

- a) Determine what specialties or other participants are required (e.g., Operations, airworthiness, avionics, aviation medicine, etc.).
- b) Make the request for technical support from the Director, Airworthiness Standards.
- c) Brief all participants on the preliminary incident information and their associated responsibilities.
- d) If the investigation requires an on-site investigation, make the necessary Preparations.

13.10 Initiate a Telephone Investigation.

13.10.1 Contact each of the owners and/or pilots and all identified witnesses for Statements regarding the incident.

- a) Record all pertinent information concerning the witness, including the witness's name, address, and a telephone number for future contact.
- b) Document the date and time of the occurrence and request a written Statement, if required and the witness is willing.

13.11 Prepare for an On-Site Investigation

13.11.1 Before leaving the office for the incident site, accomplish the following:

- a) Obtain office accident/incident investigation kit.
- b) Contact the Director, Airworthiness Standards and provide the following:
- c) The location of the on-site investigation
- d) The estimated time of arrival



- e) A list of all persons from the office that will be on-site
- f) The known background information regarding the incident
- g) The estimated time of return, if known

13.12 Conduct the Investigation.

- a) Brief all participants, as appropriate.
- b) Contact the involved parties and obtain witness statements.
- c) If an on-site investigation, take pictures using the office camera or make arrangements for another participant to take the pictures.
- d) Obtain any supporting data concerning the aircraft, pilot, weather, etc.
- e) If crewmen incapacitation was a possible factor, notify the ACAA Medical Examiner.
- f) If Air Traffic personnel or facilities are involved, request comments from the Appropriate Air Traffic facility.



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14 Task Outcomes

- 14.1 Completion of an incident report
- 14.2 When Air Traffic personnel or facilities are involved, handle Air Traffic Comments as follows:
 - a) If the Air Traffic facility does not submit any comments indicate that an Opportunity for comments was afforded but refused.
 - b) If the Air Traffic facility does submit comments, include those Comments as an attachment to the incident report.
- 14.3 Initiation of medical response if medical certification factors were involved.
- 14.4 Initiation of violation investigation if a violation of Civil Aviation (Air Navigation) Regulations is suspected.
- 14.5 Document the Task. File all supporting paperwork in the operator/certificate Holder's office file, as applicable.



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15 Future Activities

Conduct a violation investigation, if required.



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Appendix I NIL (No Item Listed)

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