
Chapter 11 - Flight Safety Program

11.1 Policy

It is the intention and policy of Comair to operate with the highest degree of safety. Employees must operate within the scope of all Company policies and Federal Aviation Regulations. All supervisory personnel will enforce a basic policy of safety first. To reiterate, safety will come first in all operations. All ground and flight equipment and Company facilities will be maintained in top quality condition. Safety will be promoted by thorough training, strict attention to duty and the exercise of good judgement in conducting all operations.

11.2 Organization

The Corporate Compliance Committee (CCC) provides oversight for administrating the Corporate Safety Program, including the Flight Safety Program.

11.3 Responsibility

Directors, managers and supervisors at all levels are responsible for accident prevention and implementation of this program.

11.4 Reporting of Aircraft Accidents, Incidents and Hazards

All accidents, incidents and occurrences (further defined under “Reports and Safety” in the *Operations Manual*) encountered while on duty will be reported **in writing**, to the Chief Pilot, within 24 hours. If unable to do so because of duty away from crew domicile, report the event verbally by telephone as soon as possible.

11.5 Distribution of Flight Safety Information

The director of Safety and Flight Safety specialist will obtain and distribute aviation safety information through Flight Operations, Inflight Services, Maintenance or Customer Services line managers or through the additional duty safety person in those departments, as appropriate.

11.6 Flight Safety Committee

There will be two Flight Safety Committees; one in Flight Operations and one in Maintenance. The committees will meet at least bi-monthly and be chaired by a line director in that department. The respective vice presidents will appoint both the chair and membership. A member of the Corporate Safety department will serve as an advisor to both committees. The committees will serve the following purpose:

- Review the status of current accident/incident investigations and corrective actions
- Review the status of Hazard Reports/CCLs and planned corrective actions
- Review of current Internal Evaluation Reports
- Proactive review and resolution of any aviation safety issues properly placed on the agenda
- The committee may approve, reject, or recommend action on any issue brought before it; Recommendations or action items that affect multiple departments will be forwarded to the Corporate Safety Committee

Review of the minutes and signature of the respective vice president constitutes approval and the minutes then become directive. The respective departments and Corporate Safety will retain the minutes for 24 months, after which they will be destroyed.

11.7 Flight Safety Evaluations

Flight Safety Evaluations will be part of the corporate Internal Evaluation Program, which is contained in a separate document.

11.8 Flight Safety Training

The director of Safety will develop a training program to be given during indoctrination of all new Company flight personnel and maintenance technicians. This training should be incorporated into existing indoctrination training programs. Additional duty safety personnel will receive complementary training. Records reflecting dates, names and subjects will be maintained.

11.9 Flight Safety Investigations

11.9.1 Overview

Purpose

The purpose of this chapter is to provide information to Comair personnel on the procedures for safety investigations related to aircraft accidents, incidents, injury to personnel during flight operations or damage to property as the result of flight operations.

Intent

It is Comair policy to use investigations and data associated with an event for the sole purpose of preventing aircraft accidents, injury to personnel or damage to property.

Applies To

All Comair operations and employees

Results

Comair participates fully in investigations of abnormal operational events involving aircraft, events that involve the occupational safety and health of personnel or operational issues that impact or may impact safety at Comair Inc. The Company believes in maintaining full compliance with the objectives of safety investigations, which are to:

- Determine systemic factors relevant to the event or issue
- Identify and reduce unacceptable risk through causal factor analysis
- Recommend and take remedial action to preclude occurrence of an accident, injury, damage or similar event

11.9.2 Training/Qualifications

All persons who could be designated as Comair's Coordinator during an NTSB investigation should receive formal training on the NTSB accident investigation process prior to serving as a Coordinator. All persons designated to participate in an accident investigation that may expose them to bloodborne pathogens (BBP) should receive Initial and annual Recurrent Training in accordance with 29 CFR 1910.1030(g)(2).

11.9.3 Investigation Procedures

Who Will

Safety investigations will be conducted under the direction of the director of Safety or his designee. To ensure objectivity, the investigation should be headed by an investigator from Corporate Safety or a department Safety Coordinator. This does not imply that only Corporate Safety personnel will conduct the investigation. Corporate Safety staff can and should use all means available, including qualified expertise from all operational departments, to conduct a thorough, unbiased investigation.

Flight Safety Investigator On-Call

Responsibility

A designated Flight Safety Investigator-On-Call (IOC) has primary responsibility for coordinating certain initial actions following a significant irregular event. The purpose of this procedure is to streamline the initial actions process. Redundancy of actions and possible communication overload at the System Operations Control Center (SOCC) should be minimized.

Duty Period

The normal IOC duty period will be close of business on Friday through close of business the next Friday. During his duty period, the IOC's responsibilities will include, but not be limited to, the following:

- Respond appropriately to all Comair SOCC Notifications
- Act as the Flight Safety point-of-contact for other operational departments and senior management
- Log all irregular events where an investigation may be required
- Coordinate with the SOCC or other appropriate personnel to collect factual information available at the time and conduct follow-up communications as required
- Ensure notification of NTSB, ALPA and Investigation GO Team personnel as required
- Ensure notification of appropriate Corporate Safety personnel
- Ensure collection and security of investigative evidence (i.e.: CVR, DFDR, photographs, written and oral statements, flight history documentation, site documentation, etc.)

Duty Director

The primary point-of-contact is the SOCC duty director, unless otherwise requested by SOCC staff.

Coordination

Department Meetings

As circumstances dictate, and at the onset of selected investigations, the investigator will coordinate and facilitate a multi-departmental meeting to discuss the details of the event. Each departmental designee will provide expertise relevant to the investigation. The investigator will coordinate the efforts of the designees and assign action items pertinent to the investigation.

Interim Meetings

As warranted, an interim meeting may be conducted to discuss the progress of the investigation. Any investigative evidence will be presented and discussed. The investigator will manage the evidence and take the appropriate steps to address immediate safety issues.

Reports, Feedback

Once the investigation concludes, the investigator shall present a draft final report including findings, safety action, and recommendations to the departmental designees. The designees will be allowed the opportunity to provide feedback. At this time, coordination of the recommendations will be accomplished with the departmental designee responsible for ensuring compliance with each recommendation. Unless circumstances dictate otherwise, the recommendation will be assigned at the director-level or higher within the department assigned for accomplishment. The departmental designee will be responsible for notifying the appropriate director of his responsibility for timely accomplishment. (Refer to the “Report Recommendations” section in this chapter.)

Risk Assessment

Risk Assessment Codes

- Once an investigation is initiated, a risk assessment code will be assigned to the event. The Corporate Safety manager or his designee will assign the risk code based on the following criteria (refer to Chapter 40, “Operational Risk Management”):

Code	Category	Definition
A	Severe	Rare event requiring highest priority for resources and action
B	High	Event of significant concern which takes priority over routine incidents
C	Medium	Routine event requiring the attention of operating department(s)
D	Low	An event of low concern which normally requires no further action
E	Minimum	Event of statistical interest only

Data Collection

During the course of an investigation, relevant data may be collected from various sources within and outside the Company, including National Transportation Safety Board (NTSB), FAA and ASRS databases. A hard copy file containing pertinent documentary evidence will be maintained in the Flight Safety Office for each event. No files will be removed from this office without the permission of the director of Safety or his designee. When investigating an aircraft event, Corporate Safety may elect to obtain a readout of information from the flight data recorder. This readout will be used for internal investigation purposes only and cannot be released to the FAA, NTSB or any other outside entity without the expressed approval of the vice president of Corporate Safety (refer to the “Flight Recorder Policy” section in this chapter).

Written Statements

When investigating an abnormal event, Corporate Safety may request a written statement from some or all of the flight and/or ground personnel associated with the event. Such written statements will be used in the analysis of the event and may be retained on file as part of the investigation documentation.

Safety Interviews

Under certain circumstances, it may be appropriate for Corporate Safety investigators to conduct interviews of flight crewmembers or ground personnel. In addition, a designated department safety coordinator may be assigned by Corporate Safety to conduct a safety interview. The following guidelines apply to such safety interviews:

1. Interviews should take place as soon as practical after an event.
2. In-person interviews are preferred. Interviews may also be conducted by telephone, especially for less serious events. In such cases, security must be maintained. **Cellular telephones may not be used.**
3. Scheduling arrangements for in-person interviews should be coordinated with the appropriate department.
4. Safety interviews may be conducted independently from any other interviews.
5. Information obtained from safety interviews of flight crewmembers, except as compromised by legal process, will be kept confidential.
6. Information obtained from interviews will be used for prevention purposes only.
7. When appropriate, information from interviews will be used as the basis for interim safety recommendations.
8. Notes from interviews of flight crewmembers and other personnel will be taken only with the agreement of the interviewees. Such notes will be used only for investigative analysis and may be retained on file as part of the investigation documentation.

Safety Reports

Purpose

Safety reports are distributed to key operational personnel for the purpose of disseminating information pertaining to a particular event or safety issue. The following may cause a safety report to be issued:

- An aircraft accident as defined in US NTSB 830.2
- An incident (as defined below) associated with the operation of an aircraft, that affects, or could affect, the safety of operations
- An irregularity (as defined below) deemed to have safety significance
- An operational issue or series of occurrences that indicate a safety trend

Types of Reports

Various types of safety reports may be issued depending on the phase of an investigation.

- A **Preliminary Report** may be issued to describe an event or issue based on initial data. Such reports will not typically include findings or recommendations.
- An **Interim Report** may be produced for the purpose of issuing safety recommendations based on findings prior to completion of the investigation.
- Once an investigation has been completed, a **Final Report** may be issued.
- Factors that would warrant a Final Report include, but are not limited to:
 1. Issuance of recommendations
 2. Presentation of safety action take
 3. High corporate interest in the event
- An **Amended Final Report** may be issued when information is discovered that significantly alters findings or recommendations contained in a Final Report.

Report Formats

The director of Safety is responsible for the format for all safety reports. The templates for all safety reports are maintained on the Corporate Safety shared drive. The Corporate Safety administrative assistant maintains the distribution list for safety reports. The director of Safety or his designee will review each safety report for quality, accuracy and consistency prior to release. Safety reports will not be distributed to persons outside the Company without the expressed approval of the vice president of Corporate Safety.

Report Recommendations

Guidelines

As a result of the investigation of an event or issue, recommendations may be issued as part of an Interim or Final Report. In general, the following apply to recommendations:

1. Recommendations will be derived from the findings of an investigation.
 2. Every attempt will be made to coordinate recommendations with responsible departments prior to issuance. However, Corporate Safety will retain sole responsibility for the decision to issue recommendations.
 3. Recommendations will be tracked and will remain in an *open* status until an appropriate response has been received from the responsible department. Any one of the following is considered an appropriate response:
 - Safety action is implemented that is in accordance with the recommendation
 - Safety action is implemented that is not in accordance with the recommendation; must be accompanied by acceptable rationale in writing explaining the reason for alternative action
 - No action is implemented; must be accompanied by acceptable rationale in writing explaining the lack of action
1. A quarterly summary report will be issued reflecting the status of all open recommendations.
 2. Response to recommendations must be in writing to the vice president of Corporate Safety.

Once an appropriate response has been received, the status of a recommendation will be revised to *closed*.

Safety Action

Any action taken to address operational or technical issues discovered as a result of an investigation will be termed Safety Action. Such remedial action may be instigated by the responsible department prior to, or after, the publication of any recommendations.

11.9.4 Flight Recorder Policy

Digital Flight Data Recorder (DFDR)

- **Readout** – A readout of the aircraft DFDR may be requested by the director of Safety, or his designee, for the investigation of a specific operational accident, incident or irregularity. The data will be transferred electronically from Avionics to the director of Safety or designees. Once received, such DFDR readout will remain in the custody of Corporate Safety and may not be transferred to any other department or organization, except as specified below.

NTSB Requests

DFDR readouts will be furnished to the NTSB (or similar foreign investigative agencies), on request, for investigation of an aircraft accident or incident as defined under Title 49, CFR Part 830 or ICAO Annex 13. The director of Safety will coordinate the release of all DFDR readouts to the NTSB.

FAA Requests

The director of Flight Operations shall coordinate the release of all DFDR requests from the FAA.

Requests by Other Individuals or Organization

Except as specified above, DFDR readouts may not be furnished to any other individual, department, or organization unless approved by the vice president of Corporate Safety. If the event is under investigation by the NTSB, the release of any readout outside the Company must also be approved by the NTSB IIC. Any data furnished to an organization outside the Company must have a transmittal letter attached that contains a hold harmless statement worded as follows:

Hold Harmless. By accepting such data, the receiving party indemnifies and holds harmless Comair, Inc., its officers, agents, or personnel from and against all claims, liabilities, losses, costs or damages arising from the use of the supplied data.

Cockpit Voice Recorder (CVR) Tape, Transcript

A cassette tape of the aircraft CVR may be requested by the director of Safety, or his designee, for the investigation of a specific operational accident, incident, or irregularity. Once received, such CVR tape will remain in the custody of Corporate Safety and Compliance and may not be transferred to any other department or organization under any circumstances.

Transcript Requests

Under certain circumstances, the director of Safety or his designee may request a transcript of the CVR tape. Any transcript of the CVR tape may not be transferred to any other department or organization under any circumstances.

11.9.5 Terms/Definitions

- **Event** - For the purpose of this chapter, an event is classified as an accident, incident or irregularity according to the following definitions established by the FAA, NTSB or Comair:

An **aircraft accident** is defined in US NTSB 830.2 as an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or **serious injury**, or in which the aircraft receives **substantial damage**.

- **NTSB Classifications** - The NTSB classifies accidents into four categories:
 1. *Major* accidents
 2. *Serious* accidents
 3. *Injury* accidents
 4. *Damage* accidents

Corporate Safety will accordingly classify accidents involving Comair aircraft using the following NTSB criteria:

Accident Category - An accident in which any one of the following conditions is met:

A *major* accident

- An FAR Part 121 aircraft is destroyed, or
- There are multiple fatalities, or
- There is one fatality and the aircraft is substantially damaged.

A *serious* accident

- There is one fatality without substantial damage to an FAR Part 121 aircraft, or
- There is at least one serious injury and the aircraft is substantially damaged.

An *injury* accident

- A non-fatal accident with at least one serious injury and without substantial damage to a FAR Part 121 aircraft (e.g.: abrupt maneuvers, turbulence, passenger evacuation or scalding)

A *damage* accident

- Accident in which no person is killed or seriously injured, but an aircraft is substantially damaged

- **Serious Injury** - A serious injury is defined in US NTSB 830.2 as any injury that:
 1. Requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received
 2. Results in a fracture of any bone (except simple fractures of fingers, toes or nose)
 3. Causes severe hemorrhages, nerve, muscle or tendon damage
 4. Involves any internal organ, or
 5. Involves second- or third-degree burns, or any burns affecting more than 5% of the body surface.

- **Substantial damage** is defined in US NTSB 830.2 as:
 - Damage or failure, which adversely affects the structural strength performance or flight characteristics of the aircraft and which would normally require major repair or replacement of the affected component.

NOTE

Not included as substantial damage are engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes or wingtips.

- **Aircraft Incident** - An aircraft incident is defined in US NTSB 830.2 as:
 1. An occurrence other than an accident, associated with the operation of an aircraft that affects or could affect the safety of operations. See below for specific occurrences designated as incidents.
- **Incidents** - The following are specific occurrences designated as **incidents** in US NTSB 830.3 that require immediate notification to the nearest NTSB field office. Corporate Safety will classify these occurrences as incidents:
 1. Significant malfunction or failure of a flight control system
 2. Inability of any required flight crewmember to perform his normal flight duties as a result of injury or illness
 3. Uncontained failure of structural components of a turbine engine
 4. In flight fire
 5. Aircraft collision in flight
 6. Damage to property, other than the aircraft, estimated to exceed \$25,000 for repair
 7. In flight failure of electrical systems which requires the sustained use of an emergency bus powered by a backup source
 8. In flight failure of hydraulic systems that results in sustained reliance on the sole remaining hydraulic or mechanical system for movement of the flight control surfaces
 9. Sustained loss of the power or thrust produced by two or more engines
 10. Evacuation of an aircraft in which an emergency egress system is utilized

In addition to the previous, Corporate Safety will also classify the following occurrences as incidents.

1. High-speed rejected takeoff resulting in a maximum airspeed that is within 5% of or exceeds V_1
 2. Runway excursion during takeoff or landing
 3. Runway incursion without appropriate Air Traffic Control (ATC) clearance
 4. Significant operational deviation resulting from lack of vigilance or disregard for procedures
 5. Deviation of more than 500 feet from an assigned altitude, not including response to a Traffic Collision Avoidance System (TCAS) Resolution Advisory (RA) or circumstances beyond the control of the flight crew
 6. Significant navigational course deviation
 7. Near mid-air collision resulting in a distance between two aircraft of less than 500 feet
 8. Less than adequate terrain separation
 9. Unstabilized approach below 500 feet above ground level (AGL) on a visual approach or below 1000 feet AGL on an instrument approach
 10. Descent below 1000 feet AGL while attempting to land at the wrong airport or descent below 500 feet AGL while attempting to land on the wrong runway
 11. Weather-related injury to personnel or damage to aircraft, excluding static discharges
 12. Selected events involving an aircraft that result in injury to personnel or significant damage
 13. An aircraft external door opens in flight and at least one of the following occur:
 - The aircraft sustains damage
 - Engine damage or shutdown results
 - Baggage, cargo or other objects exit the aircraft
 14. An object of significant size or weight departs from or off an aircraft during flight
 15. Selected events where it is determined that the aircraft or personnel were placed in danger of a potential accident
- **Irregularity** - An irregularity is defined as:
 1. Any operational event not classified as an aircraft accident or incident that is determined to have safety implications sufficient to merit an investigation.
 2. An operational event, not necessarily associated with the operation of an aircraft, that involves injury to personnel, damage to equipment or noncompliance with regulatory requirements.

11.9.6 Reporting and Recordkeeping

There are no reporting or recordkeeping requirements for this chapter.

11.9.7 References

- 49 Code of Federal Regulations (CFR) 820
- ICAO Annex 1
- US National Transportation Safety Board (NTSB) 830.2

11.9.8 Forms

There are no corporate forms associated with this chapter.

11.10 Trend Analysis

The purpose is to identify trends and areas requiring management attention. Flight Safety will produce a quarterly report based on Irregular Operations Reports and distribute it to all appropriate management personnel and make it available to all line pilots. Other reports will be generated as appropriate to identify safety associated anomalies that occur during flight operations.

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