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## Preamble

*[NX19 A.1.1, NX19 A.1.2]*

This Company Operations Manual (COM) has been compiled for the use and guidance of Flight Department personnel in the execution of duties. It contains information and instructions to guide company flight operations.

Acme Corp Flight Department is dedicated to highly professional Flight Operations. Safety is our first priority, and we will continuously demonstrate high safety consciousness in our daily flight operations. Our flight operations mission is:

* To be the provider of safe, reliable, high quality, and cost effective air transportation services that meet the needs of our company.

Acme Corp Flight Department operational and technical staff who operate professionally in accordance with the COM are guaranteed the full support of administrative staff. All staff members have a duty to openly and honestly report events and hazards. Such reports will be thoroughly investigated in a non-punitive manner.

Each of us will be expected to accept responsibility of and accountability for his/her own behavior. Each of us will have an opportunity to participate in developing safety standards and procedures. We will openly communicate information about safety incidents and will share the lessons learned with colleagues. Each of us will be concerned for the safety of others in our organization.

Acme Corp Flight Department recognizes the value of operating to a well recognized international standard. As corporate policy, Acme Corp operates to the standards developed and adopted by the International Business Aviation Council and of its Member Associations, including National Business Aviation Association. These standards employ best practices used widely in the business aviation community, as such, reflect the high standards of operational safety that we wish to achieve in this company.

Operations and maintenance personnel are to be familiar with this manual and are to comply with its provisions. Changes to the manual will be promptly disseminated to Flight Department personnel.

Acme Corp Flight Department employees are expected to comply with the provisions of this manual, with the understanding that safety and the best service to Acme Corp Flight Department will result only when they add the values of common sense, initiative, courtesy, personal integrity, reasonableness, and professionalism to these written standards.

The Director of Aviation carries full authority and responsibility to keep the COM current and to conduct operations in compliance with the manual.

Accountable Executive Date Acme Corp

Director of Aviation Date

Acme Corp

## Purpose

The purpose of this manual is to enable Acme Corp Flight Department to provide safe, efficient, convenient, and secure air transportation for executives and designated guests of the Flight Department and its subsidiary companies. The manual seeks to support the aviation policies of Acme Corp Flight Department and provide detailed procedural guidance.

The provisions of this manual are intended neither to replace specific operational procedures established by an aircraft manufacturer, nor to contradict any state or federal rules or regulations. As aviation professionals, employees of the Flight Department are expected to be familiar with operating requirements and standards of the Code of Federal Regulations (CFRs) and International Civil Aviation Organization (ICAO). In addition, they are expected to conform to the procedures published in the Aeronautical Information Manual (AIM).

Each recipient of this manual and subsequent versions should carefully read the document as soon as it is received. Employees should discuss and seek clarification of any section they do not understand. They also should review the entire manual regularly to remain familiar with its contents.

While familiarity with the manual is essential, nothing supersedes exercising sound professional judgment in emergency situations. If inflight, employees will take whatever actions are necessary to maintain control of the aircraft and ensure the safety of passengers and crew. At all times employees will act promptly to safeguard the lives of others and to protect equipment and property from damage or loss.

## Distribution

The Director of Standards will ensure all members of the flight department receive updates to the manual as soon as they are available.

## Document Handling and Storage

The Director of Aviation will ensure that any other Acme Corp personnel are aware of the latest information. The Director of Aviation will also electronically notify all personnel who are operating away from the main base of pertinent new information.

All documents, manuals, forms, etc. will be maintained current in a suitable electronic format and made available to flight crews and other Acme Corp employees as necessary for the execution of their duties and responsibilities. Only documents that cannot be produced in an electronic format will be kept in the original form accessible in a location where that document is most likely required to be accessed or displayed.

Even though a particular document must be kept in the original form, an electronic copy will also be maintained.

## Crew Information File

Acme Corp will disseminate operational information to all personnel through the use of Company Directives and Bulletins. Information will be distributed to personnel via email. The Chief Pilot or his/her designee will require a “Return Receipt” as proof the information was read. A copy of the Directive or Bulletin and a record of the “Return Receipt” will be kept.

## COM Waiver

The [COM Waiver Form](#_bookmark20), is used by the Director of Aviation to waive the provisions of this manual when preplanned deviations are required.

Additionally, the form will be used to notify the Director of Aviation within three days after returning from a trip during which a deviation from the provisions of this manual has occurred.

The Director of Aviation will review COM Waivers periodically to monitor trends and recommend changes to the COM.

## Revisions

*[NX6 3.4.2.2]*

Published revisions to the manual will be issued when directed and/or approved by the Director of Aviation. Recommended changes will be coordinated with Flight Department employees.

Revised text will be highlighted by a vertical line in the margin of the page (as shown in this example) and will extend the length of the change. Each revised page will be dated and the revision number will appear in the header at the top of the page. In addition, at the front of each manual, a Record of Revisions will be maintained, and a List of Effective Pages for the manual will reflect the revision status of each page.

The Director of Aviation shall maintain the master copy of this manual in both printed and electronic forms. Individual manual holders are responsible for keeping their personal copies current by making changes as directed by public instructions and recording the revision number and date of posting on the Record of Revisions page near the front of the manual.

They may refer to the master copy to confirm currency. The Director of Aviation shall be responsible for the currency of aircraft copies.

## Rules of Construction

Words importing the singular include the plural. Words importing the plural include the singular.

Words importing the masculine gender include the feminine.

*Shall* is used in an imperative sense.

*May* is used in a permissive sense to state authority or permission to do the act prescribed. The words “no person may” or “a person may not” mean that no person is required, authorized, or permitted to do the act prescribed.

*Includes* means “includes but is not limited to.”

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## COM Waiver Form

**COM Waiver**

Date: Name: Aircraft: COM section number reference: Reason for request:

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| Signatures (as applicable): |  | |
| Pilot in Command |  | Date |
| Second in Command |  | Date |
| Aircraft Technician  (Check one) Approved | Not Approved | Date |

Basis for approval or disapproval:

Restrictions to granted request:

Director of Aviation Signature Date

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## Record of Revisions

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**Acme Corp**

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**Acme Corp**

COMPANY ORGANIZATION

REVISION: ORIGINAL DATE: 03/03/22

Assistant Director of Maintenance

Line Technician

Director of Maintenance

# Company Organization

## Acme Corp Flight Department Structure

Principal CEO

Chief Pilot

Flight Coordinator

Director of Standards

Director of Safety

Director of Aviation

Pilots

## Duties, Responsibilities, and Qualifications

Following are the duties, responsibilities, and qualifications of the management and operating personnel of Acme Corp Flight Department. Personnel in job categories have the authority to carry out their assigned duties and responsibilities, including their safety tasks, with the appropriate notification and coordination of their direct supervisors or other appropriate company officials.

* + 1. **Director of Aviation Reports to:** Principal CEO

**Supervises:** Director of Maintenance, Chief Pilot, Director of Safety, Director of Standards, Flight Coordinator

## Qualifications

*[NX6 2.1.1.6 and NX6 3.3.1.5]*

**Education:** College degree or equivalent experience

**Experience:** Five years pilot and/or management experience

## Position Description

The Director of Aviation is responsible for managing the Acme Corp aircraft in order to support the travel requirements of company personnel, customers, and guests. This position includes the responsibility for carrying out our company’s mission and objectives while ensuring that safety is never compromised.

## Duties and Responsibilities

*[NX6 3.4.2.3.1]*

1. Leads Acme Corp to maintain a culture of safety with efficient procedures that support customer service
2. Provides leadership and direction for highly motivated professional pilots and support staff
3. Ensures reliability, safety, service, security, and maintains legal compliance with appropriate regulations and company policies
4. Maintains compliance with company policies and procedures
5. Creates documents to meet the FAA rules and regulations
6. Manages and develops aircraft operating procedures
7. Manages the pilot training standards
8. Prepares budgets per corporate requirements
9. Ensures that Flight Operations aircraft are maintained in the most up to date status
10. Oversees the Acme Corp RVSM program
11. Acme Corp with maintenance
12. Selects and maintains a staff of professionals of the highest caliber

## Chief Pilot

**Reports to:** Director of Aviation

**Supervises:** Pilots

## Qualifications

*[NX6 2.1.1.6, NX6 3.3.1.5 and NX6 3.9.4.1.1]*

**Education:** College degree or equivalent experience

**Licenses:** ATP, type rating in Company aircraft English proficiency

Restricted Radio Telephone Operator Permit Valid automobile driver’s license

Valid passport

**Medical:** FAA First-Class Medical Certificate

**Flight Time:** 5000 hours total time

2000 hours multiengine turbine

**Experience:** Three years pilot and/or management experience

## Position Description

The Chief Pilot is responsible for the flight operations of Acme Corp Flight Department aircraft. The Chief Pilot works closely with the other members of the management team to continually evaluate and improve the Flight Department, and the day to day operations.

## Duties and Responsibilities

*[NX6 3.4.2.3.1]*

1. Works within Acme Corp Flight Department to maintain a culture of safety with efficient procedures that support customer service
2. Acts as Pilot in Command (PIC) in company aircraft, as required
3. Monitors appropriate compliance of flight operations with department standards
4. Responsible for crewmember training, including developing and implementing in house or contract training to meet regulatory and company objectives
5. Maintains crew records and generates reports
6. Develops Standard Operating Procedures (SOPs) and maintains the professional standards of Acme Corp Flight Department crewmembers
7. Issues directives and notices to the crewmembers, as required
8. Ensures that airports and routes served by Acme Corp Flight Department are operationally suitable and meet company requirements
9. Acts on and distributes accident, incident, and other occurrence reports
10. Optimizes the aircraft and crew schedules
11. Creates, maintains, and implements Company Operations Manual to be used by crewmembers of the Acme Corp Flight Department

## Captain

**Reports to:** Chief Pilot

**Supervises:** Crewmembers on assigned flights when acting as PIC

## Qualifications

*[NX6 2.1.1.6, NX6 3.3.1.5 and NX6 3.9.4.1.1]*

**Airman Certificate:** FAA ATP Appropriate Category, Class, and Type

Ratings, with statement of English proficiency

**Medical Certificate:** FAA First Class

**FAA Sanctions**

**Last Five Years:** None

**Accidents Or Incidents**

**Last Five Years:** None

**Type Rated:** Yes, in type operated by Acme Corp

LLC with FAA approved simulator training. A specific safety training event (i.e. Upset Training) may replace a simulator training event once every 36 months.

**Total Time:** 4000

**Category:** 4000

**PIC Category:** 2000

## Class (Multi-Engine): 2000

**PIC Class:** 1500

## Specific Type

**and Model:** 100

## Instrument Actual (PIC): 300

**Turbine:** 1000

**Turbojet, PIC:** 5000

## Position Description

The Captain, when assigned as the PIC, is responsible for the safe transport of company personnel on domestic and international flights. The Captain ensures aircraft meets performance for airworthiness, researches current weather, and calculates and files flight plans.

## Duties and Responsibilities

*[NX6 2.7.2.1 and NX6 3.4.2.3.1]*

* + - * 1. Works within Acme Corp to maintain a culture of safety with efficient procedures that support customer service
        2. Retains final authority for the safe operation of the aircraft
        3. Ensures that proper documents are on the aircraft
        4. Instructs and directs crewmembers so that they understand fully and completely what duties they are expected to perform
        5. Makes decisions related to the start, delay, or cancellation of the flight, or deviation from a planned destination when operating conditions dictate
        6. Prepares or supervises preparation of flight plan considering such factors as altitude, terrain, weather, range, weight, cruise control data, airport facilities, and navigational aids
        7. Performs tasks associated with operating the aircraft while away from home base
        8. Ensures that a flight plan or other authorized flight locating procedures are followed on each flight
        9. Reports known or suspected FAA violations or incidents promptly to the Chief Pilot
        10. Ensures that crewmembers provide passengers with the appropriate briefing for each phase of flight
        11. Ensures that the required passenger ground handling and transportation is in place
        12. Completes relevant trip documentation at the conclusion of the flight
        13. Ensures that crewmembers on assigned flights are fully qualified, properly rested, prepared for flight, have required licenses and certificates in their possession, and are briefed on specific requirements of the trip

## Second in Command

**Reports to:** Chief Pilot

## Supervises: N/A

* + - 1. **Qualifications**

*[NX6 2.1.1.6, NX6 3.3.1.5 and NX6 3.9.4.1.1]*

**Airman Certificate:** FAA ATP Appropriate Category, Class, and Type

Ratings, with statement of English proficiency **Medical Certificate:** FAA First Class renewed every six months **FAA Sanctions**

**Last Five Years:** None

**Accidents or Incidents**

**Last Five Years:** None

**Type Rated:** Yes, in type operated by Acme Corp

LLC with FAA approved simulator training. A specific safety training event (i.e. Upset Training) may replace a simulator training event once every 36 months

**Total Time:** 2000

**Category:** 1500

## PIC Category: 500

## Class (Multi-Engine): 1500

**PIC Class:** 100

## Specific Type

## And Model: 0

## Instrument Actual (PIC): 75

**Turbine:** 500

## Turbojet, PIC: 50

## Position Description

The Second in Command (SIC) performs the duties of on Acme Corp aircraft and are responsible to remain involved with the safe operation of the flight. The SIC may perform takeoffs and landings as directed by the PIC.

## Duties and Responsibilities

*[NX6 3.4.2.3.1]*

* + - * 1. Works within Acme Corp to maintain a culture of safety with efficient procedures that support customer service
        2. Functionally responsible to the PIC of the flight for the conduct and execution of assigned duties in accordance with federal, state, and local airport rules and regulations
        3. Performs duties as assigned during flight preparation and inflight
        4. Assists PIC in operation and flight of the aircraft
        5. Is prepared to assume inflight duties of PIC if the PIC becomes incapacitated
        6. Provides passengers with the appropriate briefing for each phase of flight as directed by the PIC
        7. Assists with aircraft preflight, records, and flight documents, as required
        8. Serves and assists passengers to ensure their safety and comfort
        9. Maintains up to date technical job knowledge in aircraft systems, avionics, and ATC

## Director of Safety

**Reports to:** Director of Aviation

## Supervises: N/A

* + - 1. **Qualifications**

**Education:** High school diploma, or equivalent

**Experience:** Knowledge of aviation related safety programs, safety standards applicable to aviation operations, accident causation and prevention theory, safety margins, risk management techniques, and human error theory Knowledge of CFRs

## Position Description

The Director of Safety works in liaison with the Director of Aviation on matters related to safety. The Director of Safety is responsible for all aspects of the SMS.

## Duties and Responsibilities

*[NX6 3.4.2.3.1]*

1. Works to maintain and promote the Acme Corp Flight Department safety culture while employing efficient procedures that support customer service
2. Acts as resident expert on safety related matters
3. Ensures that safety program elements are carried out
4. Manages the Acme Corp Flight Department SMS on a daily basis
5. Communicates safety issues within the Flight Department.
6. Monitors compliance with applicable safety standards (e.g. DOT, FAA, OSHA, EPA)
7. Manages FOQA data
8. Manages Fatigue Risk Management Program

## Director of Maintenance

**Reports to:** Director of Aviation

**Supervises:** Assistant Director of Maintenance, Line Technician

## Qualifications

**Education:** High school diploma or equivalent

Formal maintenance training on Acme Corp specific aircraft required

**Licenses:** FAA Airframe and Powerplant license

Inspection Authorization (preferred) Valid automobile driver’s license Valid passport

**Medical:** N/A

**Experience:** Five years maintenance experience with high performance turbine aircraft. Experience with Acme Corp specific aircraft preferred

## Position Description

The Director of Maintenance is responsible for aircraft maintenance, including supervising technicians and working directly on company owned and operated aircraft to achieve the highest level of safety and dispatch.

## Duties and Responsibilities

*[NX6 3.4.2.3.1]*

1. Works within Acme Corp to maintain a culture of safety with efficient procedures that support customer service
2. Implement the maintenance standards, methods, and procedures

utilized by the company to ensure compliance with the company operations manual, CFRs, and manufacturers recommendations

1. Liaising with the national civil aviation authority on maintenance topics
2. Supervising aircraft maintenance staff
3. Liaising with all non-company persons or Approved Maintenance Organizations (AMOs) performing maintenance on Acme Corp aircraft
4. Ensure the proper completion of aircraft maintenance records as required by State regulations, manufacturers and company policy are established and maintained
5. Ensuring that Airworthiness Directives and Service Bulletins that effect Flight Department aircraft are complied with appropriately
6. Monitor and accomplish warranty administration for assigned aircraft
7. Participate in the flight department occupational health and safety program
8. Removing from service any aircraft that are unsafe, or that do not comply with national regulatory requirements
9. Establishing Flight Department safety policies and procedures for ground operations
10. Ensure that subordinate maintenance personnel are qualified to perform the maintenance procedures assigned in accordance with procedures set forth in the Company Operations Manual
11. Ensure that adequate tools, parts, materials, support equipment, and facilities are available for the work intended
12. Coordinate maintenance activities with the Director of Aviation, as required
13. Coordinate maintenance training requirements as addressed in the company operations manual with the Director of Aviation
14. While maintaining overall responsibility, delegate duties to qualified assistants as necessary
15. Develop budget information related to aircraft maintenance, spare parts, tooling, equipment, and base facilities as requested by Director of Aviation
16. When using “per diem” technicians for temporary replacement coverage, verify the qualifications and training status of each “per diem” and provide necessary training to meet company requirements
17. Undertake other duties and responsibilities as assigned by the Director of Aviation
18. Dispatches and receives aircraft at home base

## Assistant Director of Maintenance

**Reports to:** Director of Maintenance

## Supervises: N/A

* + - 1. **Qualifications**

**Education:** High school diploma or equivalent

Formal maintenance training on Acme Corp specific aircraft required

**Licenses:** FAA Airframe and Powerplant license

Valid automobile driver’s license Valid passport

**Medical:** N/A

**Experience:** Three years maintenance experience with high performance turbine aircraft. Experience with Acme Corp specific aircraft preferred

## Position Description

The Assistant Director of Maintenance is responsible for completing assigned aircraft, engine, and avionics maintenance in a safe and timely manner.

## Duties and Responsibilities

*[NX6 3.4.2.3.1]*

1. Works within Acme Corp to maintain a culture of safety with efficient procedures that support customer service
2. Assisting the Director of Maintenance as directed
3. Assisting in performing aircraft maintenance, servicing, and any other task related to maintaining a safe, compliant, airworthy aircraft
4. Supervising aircraft maintenance during MRO, FBO, AOG, events, when needed on location
5. Liaising with all non.company persons or Approved Maintenance Organizations (AMOs) as directed
6. Assisting to ensure that aircraft maintenance records as required by State/federal regulations, manufacturers and company policy are established and maintained
7. Assisting with communication about all applicable Airworthiness Directives, CB, ASCs, and Service Bulletins ensure appropriate compliance
8. Participate in the flight department occupational health and safety program
9. Help maintain established flight department safety policies and procedures for aircraft, and ground/hangar operations
10. Any other related tasks as assigned by his/her manager to accommodate the company’s business
11. Dispatches and receives aircraft at home base

## Line Technician

**Reports to:** Director of Maintenance

## Supervises: N/A

* + - 1. **Qualifications Education:** High School Diploma

**Licenses:** N/A

**Experience:** Aircraft interior and exterior cleaning preferred.

Minor building and equipment maintenance.

## Position Description

Perform interior and exterior aircraft cleaning prior to and following company flights. Conduct general maintenance, repair, and upkeep of hangar facility, grounds, and ground support equipment/vehicles.

## Duties and Responsibilities

1. Works within Acme Corp Flight Operations to maintain and promote a culture of safety and customer service throughout the organization
2. Performs interior and exterior aircraft cleaning
3. Performs hangar facility cleaning
4. Performs aircraft towing
5. Monitors refueling and de-icing functions
6. Performs line service functions for company and visiting aircraft
7. Assists Technicians as requested
8. Orders supplies as required to maintain aircraft stock and inventory control of cleaning supplies and equipment
9. Performs cleaning of department vehicles
10. Performs minor upkeep of the ground support equipment
11. Performs minor facility maintenance including routine plumbing, heating and electrical repairs, any repairs requiring outside contracting shall be coordinated through the Director of Maintenance
12. Performs minor maintenance of the department vehicles
13. Assumes supervisory duties in working with outside contractors for the facility

## Flight Coordinator

**Reports to:** Director of Aviation

## Supervises: N/A

* + - 1. **Qualifications**

**Education:** High school diploma required, college degree preferred

**Licenses:** Dispatchers license

**Medical:** N/A

**Experience:** Aviation scheduling and dispatching preferred Experience with computer software required

## Position Description

Perform trip scheduling, flight crew, and passenger logistical support as required by the Director of Aviation and each trip PIC.

## Duties and Responsibilities

1. Works within Acme Corp Flight Operations to maintain a culture of safety with efficient procedures that support customer service
2. Scheduling travel for executives on company aircraft or other lift alternatives such as charter
3. Coordinating aircraft handling and fueling with fixed base operators
4. Maintaining a flight following system
5. Coordinate travel schedule with maintenance schedule
6. Interfacing with flight crews, management, maintenance, and passengers
7. Scheduling ground transportation and accommodations
8. Arranging catering
9. Coordinate international trip requirements including EAPIS and customs, when necessary
10. Ensuring trip meets duty and rest requirements
11. Track qualification and training records for each Acme Corp crewmember
12. Assist crewmembers with currency requirements by tracking due dates

## Director of Standards

**Reports to:** Director of Aviation

**Supervises:** Crewmembers on assigned flights when acting as Pilot in Command

## Qualifications

**Education:** High school diploma or equivalent

Aircraft specific training, as required

**Licenses:** ATP with multiengine land rating

Type rating in Company aircraft English proficient

Valid automobile driver’s license Valid passport

**Medical:** FAA First-Class medical certificate

**Experience:** Three years pilot experience as Captain

## Position Description

The Standards Captain oversees the flight standards program to develop and ensure flight crewmembers operate according to Acme Corp standard operating procedures and policies.

## Duties and Responsibilities

1. Accountable for developing, monitoring, and enforcing the professional standards of the flight crews
2. Accountable for the overall effectiveness of the Acme Corp Safety Management System
3. Developing Standard Operating Procedures
4. Establishing and managing the Hazard Identification and Tracking System, in concert with the Director of Safety
5. Establishing and managing the Continuous Improvement Opportunity System, in concert with the Director of Safety
6. Maintain and monitor Risk Assessment Forms
7. Providing input to the Director of Aviation regarding the company operations manual, aircraft checklists, and all other flight crew Standard Operating Procedures
8. Participate in the flight department Occupational Health and Safety program
9. Monitoring flight crew performance
10. Administering company flight evaluations in accordance with the Company Check Pilot Manual
11. Manage the monthly training program
12. Administers the RNP AR validation program if used
13. Providing crews with an avenue to develop changes to Standard Operating Procedures
14. Assuming any responsibilities delegated by the Director of Avi**G**a**o**tio**to**n **Transmittal**

## Contract Pilots

Contract pilots will normally be assigned to PM duties when passengers are on board. Contract pilots must be SIC current as a minimum, hold the appropriate aircraft type rating and a current First-Class medical certificate. Currency can be waived by the Director of Aviation on a case by case basis. The Director of Aviation may designate contract pilots as left seat capable (with passengers.)

Prior to using a new contract pilot, the Director of Standards will provide a briefing to familiarize the pilot with normal Acme Corp passenger protocol and will complete an ASSET checklist as provided in paragraph 6.9 Aircraft Specific Survey and Emergency Training (ASSET). The Director of Standards will also ensure the Contract Pilot has access to the COM and, specifically, this section, Flight Operations.

A contract pilot may be allowed to serve as PIC or fly the aircraft from the left seat with passengers onboard if the pilot meets the requirements of xxx

* 1. Captain/PIC, with prior approval and appropriate designation by the CEO.

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# Safety Management System

*[NX6 3.3.2, NX19 4.1.1, NX19 4.2.1, NX19 A.1.5.2, and* *NX19 A.1.5.3]*

The Acme Corp Flight Department operates with safety as our first priority. Acme Corp uses a Safety Management System to ensure that the Flight Department consistently provides safe air transportation by identifying safety hazards, analyzing the hazards, and eliminating or avoiding the hazards. Where hazards cannot be eliminated or avoided, mitigation is developed, implemented, and tracked to reduce the hazards and the associated risk to an acceptable level. Acme Corp Flight Department values people dedicated to a safe work environment. With this in mind, all flight department personnel are active participants of the safety team. We are all responsible for maintaining the highest standards of safety at all times.

## Safety Policy

*[NX19 A.1.1, NX19 A.1.2, NX19 A.1.5.1, NX19 A.1.5.2 and NX19 A.3.3]*

Acme Corp Flight Department is committed to developing, implementing, and improving appropriate strategies, management systems, and processes to ensure that our aviation activities uphold the highest level of safety performance and meet national and international standards.

Our commitment is to:

1. Develop and practice a safety culture across our entire aviation operation that recognizes the importance and value of effective aviation safety management and acknowledges that safety is paramount
2. Clearly define staff accountabilities and responsibilities for the development and implementation of safe practices and procedures
3. Provide the staff with adequate and appropriate aviation safety information and training to enable them to implement safety strategy and policy
4. Comply with, and wherever and whenever possible, exceed legislative, regulatory, and corporate requirements and standards
5. Ensure externally supplied systems and services that affect the safety of aviation operations meet appropriate regulatory and safety standards
6. Establish and measure aviation safety performance against objectives
7. Foster a learning environment by which we learn from our experiences and the experiences of others
8. Regularly conduct safety and management reviews leading to improved processes
9. Actively develop and improve the safety performance to conform to world class safety standards
10. The Director of Safety will report directly to the Director of Aviation and be responsible for managing the aviation safety program

Each individual will always act with safety in mind because we have a responsibility to work in a safe manner. The application of effective aviation SMSs and processes is integral to aviation activities. The objective is to achieve the highest standard of aviation safety and performance.

Personnel should actively report safety issues without fear of reprisal.

Safety Policy will be reviewed annually by the Director of Aviation to ensure it remains relevant to the Company and that it reflects management commitment to maintain and improve the overall effectiveness of the SMS. All necessary documents and information will be made available to employees to help maintain a safe operation.

## Purpose

The purpose of the safety policy is to manage safety proactively and effectively. This is done by:

1. Obtaining consistent and optimal aircraft and human performance
2. Identifying and managing safety risks specific to the company’s flight operations
3. Actively seeking feedback on and improving safety management activities

## Responsibilities

*[NX19 A.1.1, NX19 A.1.2, NX19 A.1.3, NX19 A.1.5.2]*

1. The Acme Corp CEO is responsible for:
   1. Sustaining conditions that advance the safe operation of company aircraft
   2. Providing the resources (in time and money) to assure the safe operation of company aircraft
   3. Actively supporting the safety management system
2. The Director of Aviation is responsible for:
   1. Ensuring that flight operations are conducted in compliance with all applicable safety regulations
   2. Administering the safety management system
   3. Validating and addressing safety risk management deficiencies in an appropriate and timely manner
   4. Periodically reviewing the company safety policy to ensure it remains relevant to Acme Corp Flight Department
3. Flight Department personnel are responsible for:
   1. Adhering to directions contained in flight operations.related manuals, and related procedures
   2. Participating proactively in the safety management system by:
      1. Actively identifying, reporting and mitigating hazards and safety risk management deficiencies
      2. Providing timely input to management to ensure that the company’s safety risk profile is accurate and up to date
      3. When appropriate, applying hazard checklists to identify and correct work hazards.

**NOTE:** Acme Corp will not initiate disciplinary measures against any employees for reporting safety issues. However, employees will be held accountable for knowingly disregarding established policies and procedures or otherwise engage in willful misconduct.

## Related Documents

*[NX19 A.1.5.2]*

Acme Corp Flight Department shall establish and maintain information, in paper or electronic form, to describe:

1. Safety policies
2. Safety objectives
3. SMS requirements
4. Safety related procedures and processes
5. Responsibilities and authorities for safety related procedures and processes
6. Interaction/interfaces between safety related procedures and processes
7. SMS outputs

Documentation and/or records, either in paper or electronic form, shall be legible, dated (with dates of revisions), readily identifiable, maintained in an orderly manner, and retained for a specified period of time as determined by Acme Corp Flight Department.

## Employee Safety Training

*[NX19 A.4.1.1 and NX19 A.4.1.2] [Appendix C]*

The Director of Safety will be the primary point of contact on all Safety Management System issues and should subscribe to all available National Business Aircraft Association (NBAA) and International Civil Aviation Organization (ICAO) online training resources. As time permits, Acme Corp will consider sending the Director of Safety to appropriate SMS courses as they become available. The Director of Safety, in turn, will train members of the flight department for their SMS duties and responsibilities.

## The Operator Safety Risk Profile

The [2.3.3 Operator Safety Risk Profile](#_bookmark132) is a tool that identifies areas of higher risk. It is the basis on which the company safety management system is developed, implemented and evaluated.

Operator Safety Risk Profile factors are rated as:

1. Low – L
2. Medium low – ML
3. Medium – M
4. Medium high – MH
5. High – H

When the risk profile is completed it will be filed in the Company Safety Management filing system.

The risk profile will be reviewed at least annually, and any time the company undertakes significant change in its operations, or the aircraft it operates.

## Mitigations

References will be provided on the form for mitigations that are contained in the Company Operations Medium or Higher Risks.

While all areas of risk are considered, those assessed as “medium” or “higher” in the Acme Corp Safety Risk Profile will receive special attention in the development of the Technical Management System and in managing the day today operations of the Flight Department.

## Previously Identified Risks and Mitigations

The following is a listing of the areas of risk assessed as medium or higher and a description of the tools, processes and procedures developed to mitigate them and the associated company safety performance goals. Also included are the evaluation mechanisms that Acme Corp will use to evaluate the results of these initiatives.

## Hazards/Mitigations

1. **Fatigue Mitigation:** Crewmembers will follow Extended Duty Day procedures, [3.4 Flight and Duty Period Limitations](#_bookmark244) will not be questioned if the trip is modified to acquire proper rest
2. Special Operations Airports: Crewmembers will review Special Operations Airports and perform the [4.5 Special Operations Airport](#_bookmark328) [Checklist](#_bookmark328)
3. **MEL Considerations:** Review MEL for Remarks/Exceptions and operational procedure considerations. Contact the Director of Maintenance if any questions arise regarding previous MEL items or when adding MEL items
4. **Adverse Weather Operations:** Review FlightRisk Analysis, Review Section [4.3.3 Operating Weather Minima](#_bookmark299) and/or Section [5.2.9](#_bookmark383) [Aircraft Critical Surface Contamination](#_bookmark383)
5. **New Aircraft Type:** Adhere to Crew Qualifications/Pilot Operating Experience, [7.1 Flight Crew Currency](#_bookmark536) for new type ratings. Attend recurrent simulator training every 6 months.

## Operator Safety Risk Profile

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## Safety Management Strategy

The core Acme Corp operating philosophy stresses the importance of achieving the following priorities in the following order:

## Safety Passenger Requirements

**Schedule**

Every decision, from aircraft maintenance to real time cockpit decisions, can be weighed against these priorities. Safety, as the highest priority, must be continuously evaluated in a proactive manner. Every member of the flight department serves as a safety officer and has direct access to the Director of Safety, the Director of Aviation, and the CEO of Acme Corp on all safety related matters.

## Safety Performance Indicators

*[NX19 A.3.1.1, and NX19 A.3.1.2]*

## Goals

The safety objective is to ensure zero level of preventable injury or damage situations.

1. Safety will be recognized by management and employees as an integral and vital part of the successful performance of any job
2. Safety, being paramount to our operating practice, will be given priority at all times
3. Direct responsibility for the safety of an operation rests with the supervisor of each operation. During flights the designated Pilot in Command (PIC) is the supervisor of each operation and will seek to ensure that all operations are conducted without incident
4. Each individual employee will perform their duties giving primary concern for their own safety as well as that of their fellow employees, our customers and the property and equipment entrusted to their care
5. The PIC is the judge as to whether the aircraft shall takeoff and where it shall land, considering all factors of equipment and weather conditions within the specifications of the Operations Manual and/or the specific Airplane Flight Manual. He/she will exercise this responsibility effectively and will use all the resources available to make appropriate and effective decisions
6. The PIC has ultimate authority to refuse or discontinue a trip which, for reasons of safety or security, he/she feels should not be attempted or continued. He/she will exercise this responsibility effectively and will use all the resources available to make appropriate and effective decisions

## Strategies

To achieve this, the Acme Corp SMS must be proactive, ongoing and fully integrated throughout the Flight Department and all its activities. Accordingly, the following strategies are important:

1. All Flight Department employees and users will be involved in the flight department safety management system
2. Employee awareness, compliance, inspection, investigation and education programs will be incorporated into all aspects of the operation
3. All employees will endeavor to identify, report and eliminate non- normal and hazardous conditions
4. Specific Safety Performance Targets will be set for three areas of operations. Safety Performance Indicators will track the targets on a quarterly basis to help eliminate or mitigate non-normal and hazardous conditions
5. All reported hazardous events will be investigated to determine root cause
6. All proposed new equipment acquisitions, facilities, operations and procedures will be reviewed with safety in mind
7. All employees will ensure that all applicable laws and regulations are complied with
8. All employees will be trained to handle and/or operate any new equipment applicable to duty position acquired for the flight department

## Hazard Identification and Tracking System

*[NX19 A.1.1, NX19 4.2.2, NX19 A.2.1.1, NX19 A.2.1.2 and NX19 A.2.2]*

## Hazard Identification Program

[*NX19 A.3.3]*

The purpose of a hazard identification program is to proactively identify and address potential deficiencies in safety management. All Flight Department employees and persons carried on Acme Corp aircraft are expected to participate in the hazard identification program. Reports/ observations can be made to the Director of Aviation verbally, but written reports are encouraged. Where verbal reports are provided, the manager shall prepare a report containing the information. Written reports can be made using the [2.5.3 Hazard Identification and Tracking Form.](#_bookmark145)

Suggestions for improvements in areas which fall below the “hazard threshold” can be made using the [2.6.3 Continuous Improvement](#_bookmark156) [Opportunity Form.](#_bookmark156)

## Hazard Tracking System

The flight department Directors of Safety and Standards will analyze all hazard reports and a response will be provided to the person making the report. If it is determined that a modification to a procedure process or program is required, such information will be entered on the [2.5.3 Hazard](#_bookmark145) [Identification and Tracking Form](#_bookmark145) and tracked until the remedial action has been completed. Written reports will be filed in the Company Safety Management filing system and reviewed on an annual basis to determine the effectiveness of the remedial measures.

Hazard identification and tracking will be an agenda item at each of the Flight Department quarterly staff meetings.

## Hazard Identification and Tracking Form

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## Continuous Improvement Opportunity System

## Continuous Improvement Opportunity Program

The purpose of the continuous improvement opportunity program is to proactively identify and address potential deficiencies in daily operations and that, in some cases, if left unattended may become hazardous. All Flight Department employees and persons carried on Acme Corp aircraft are expected to participate in the Continuous Improvement Opportunity Program (CIOP). Reports/observations can be made to the Director of Aviation verbally, but written reports are encouraged. Where verbal reports are provided, the manager shall prepare a report containing the information. Written reports can be made using [2.6.3](#_bookmark156) [Continuous Improvement Opportunity Form](#_bookmark156) in this section.

## Continuous Improvement Opportunity Program Tracking

The flight department Directors of Safety and Standards will analyze all written reports and a response will be provided to the person making the report. If it is determined that a modification to a procedure, process, or program is required, the Director of Safety will confer with the Director of Aviation. Upon implementation of a modification, the action will be tracked for Verification for Effectiveness and noted on the written report. Written reports will be filed in the Company Safety Management filing system and reviewed on an annual basis to determine effectiveness of the remedial measures.

CIOP will be an agenda item at each of the Flight Department quarterly staff meetings.

## Continuous Improvement Opportunity Form

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## Safety Risk Management

*[NX19 A.2.2]*

Acme Corp will use the FlightRisk Analysis tool for flight risk assessments. This tool will complete a preflight risk assessment by analyzing thousands of data points – pilot, environmental, airfield, and aircraft – relating to a proposed flight.

Acme Corp pilots and flight coordinators also have the ability to complete preflight risk assessments using the FlightRisk Analysis application. FlightRisk Analysis reports are archived with other trip documents for later recall and analysis. The number of Hazards, Information entries, and Warnings are recorded on the Post Flight Form to indicate the crew have reviewed the information.

## Other than Routine FlightRisk Assessment

For other than routine flights, a preliminary FlightRisk Analysis will be completed by the PIC or the Flight Coordinator.

Situations that define other than routine flight:

1. Extended duty day/Operations within the WOCL
2. Severe warm weather operations
3. Severe cold weather operations
4. No takeoff minima specified or takeoff minima below standard
5. International trips other than Canada
6. Airports with no published standard takeoff minimums
7. Special operations airports (use in conjunction with [4.5 Special](#_bookmark328) [Operations Airport Checklist](#_bookmark328))
8. Aircraft items on CASS/MEL
9. Pop up trips

## Overall Risk and Safety Performance

For overall risk and safety performance Safety Performance Targets (SPTs) will ideally be zero negative indicators. Since this is an ideal, Safety Performance Indicators (SPIs) will be used to track negative indicators.

Negative indicators will be reviewed quarterly. Mitigations will be applied to reduce negative indicators to the lowest number of events possible. Three operational areas will be tracked.

1. Flight operations will be tracked using Gulfstream FORMS program (eFOQA)
2. Maintenance operations will be tracked using Maintenance Evaluation Checklist.
3. Fatigue will be tracked using [3.4.3 Duty Day Exception Form](#_bookmark265)

## Technical Management System

The technical management system includes the COM, standard operating procedures for each aircraft, maintenance programs as described in Chapter [8 Aircraft Maintenance](#_bookmark624), and subscriptions to:

1. The United States civil aviation regulations
2. Flight planning information documents and flight publications that will be used by flight crews
3. Minimum Equipment List
4. Configuration Deviation List

The Chief Pilot will maintain a complete list of required publications needed for flight operations and ensure the list reflects what is actually available for flight crews and other personnel. The Director of Standards will check the list quarterly to ensure all required publications are up to date. When items are changed the revision list will be updated.

## Preventive/Corrective Actions

*[NX19 A.1.1]*

1. Corrective actions are the end result of a successful investigation or audit. The report should indicate whether these actions are recommended, planned, or completed. Actions should be specific, feasible, and consist of one of three types:
   1. Actions to eliminate the cause or causes of the accident or incident
   2. Actions to control the circumstances that caused the accident or incident
   3. Personnel actions such as improved procedures, increased or enhanced training, or discipline of employees involved in the occurrence.
2. Proposed corrective actions will be reviewed by the leadership team and safety staff.
   1. Corrective actions should be carried out by appropriate managers. The final report should be communicated to employees
   2. Periodically monitor the success and continuation of the corrective action to ensure that the erroneous behavior does not recur

## Safety Management System Audit

## Independent Audit

A Safety Management System audit is an independent evaluation of the safety management system of a company. While such an audit may be done to meet an external requirement, the prime purpose of a Safety Management System Audit is to identify areas in which safety performance may be evaluated and enhanced. A Safety Management System Audit is used to validate the corporate safety risk profile, which in turn shall be employed as the basis to evaluate corporate safety performance. It may include:

1. Visits to one or more operating sites
2. Interviews with managers and operational staff within and outside of the company
3. Document reviews (e.g. for completeness, currency and appropriateness)
4. An evaluation of the safety management tools being employed by the company

Findings from a Safety Management System Audit will be tracked in the hazard tracking system and may be used to update [2.3.3 Operator Safety](#_bookmark132) [Risk Profile](#_bookmark132) and the Safety Management Strategy.

## Internal Audits

Acme Corp will conduct internal audits on a triennial basis. The audit will involve all flight department personnel to ensure conformity and satisfaction with the handling of all submitted HIT and CIO forms. All flight department personnel will participate in the completion of an Assessment Tool to further determine the effectiveness of flight department procedures.

## Compliance Monitoring

Ensuring the Acme Corp Safety Management System remains in compliance with all applicable regulations, standards, approvals, and exemptions is a shared responsibility among all members of the flight department. Ops Group notices will be reviewed daily. ICAO/BASC IEP protocols are issued annually and will be reviewed on an annual basis. In the interest of applying the proper focus to task the division of duties has been assigned as follows:

1. **Director of Aviation/Chief Pilot:** International flight operations, to include ICAO and JAA, our International Operations Manual and this Company Operations Manual
2. **Director of Standards:** Safety Management System, U.S. Code of Regulations, and the International Standards for Business Aircraft Operations
3. **Director of Safety:** Safety Management System, Safety related publications and the National Business Aircraft Association

## SMS Evaluation

At the conclusion of an external SMS audit the Director of Aviation will complete an evaluation of the appropriateness and effectiveness of the SMS. The evaluation will be based on the safety performance goals and strategies identified in Section [2.9 Preventive/Corrective Actions](#_bookmark165). An SMS evaluation will be developed and implemented for any shortcomings identified in the evaluation. When the evaluation is completed, it will be passed to the Accountable Executive for approval.

The results of the evaluation and any corrective action plans will be tracked through the Hazard Identification and Tracking System.

## Change Management Process

*[NX19 A.3.2]*

When a report is received through the Hazard Identification and Tracking System or information gained through any other process results in the decision to modify a process, procedure or program the proposed change will be reviewed by the Director of Aviation.

## Implementation

1. Approved changes will be implemented in accordance with the following procedures:
   1. The change process including the risk assessment, will be recorded
   2. The amended process or procedure or information in the amended program, will be distributed to all flight department personnel at the quarterly Safety Meeting by the Director of Aviation or person assigned the task
   3. The operations manual and other associated documentation will be amended and distributed to all document holders
2. If the change is disapproved, the reasons will be provided to the submitter.
   1. If the submitter agrees with the rationale, the matter is considered closed
   2. If the submitter does not agree with the rationale, the change request will be amended to consider the rationale and reconsidered by the process

## Possible Change Management Causes

Prior to undergoing any significant change that could impact the Flight Department; a change management process will be undertaken. Events that will indicate the need for such a process are:

1. The introduction of a new aircraft type
2. Significant change in the nature of the operation (e.g. dynamic business growth, new operating environment, etc.)
3. Changes in hiring or scheduling practices
4. Changes to organizational structure
5. Significant change in aircraft maintenance arrangements, etc.

## Review

As soon as it has been determined that the change event will occur, the Company Safety Risk Profile will be reviewed. Based on that assessment, and any other available information, the Director of Aviation, or the person to whom the responsibility is delegated, will develop a Change Management Plan. The Change Management Plan will include:

1. A risk analysis of the change event and an assessment of the changes required to items such as:
   1. Operating and maintenance procedures and processes
   2. Personnel training and competency certification
   3. Company Operations Manual
   4. Maintenance Control Manual or Maintenance Procedures Manual
   5. Aircraft SOPs, etc.
2. A plan for development of the required changes

## Flight Operational Quality Assurance

## Purpose

The driving force behind the implementation of the Acme Corp FOQA program is the improvement of safety. The FOQA program is used to reveal operational situations in which risk is increased in order to enable early corrective action before that risk results in an incident or accident.

## FOQA Program Officer

The Director of Safety is responsible for the FOQA program.

## Integration

The FOQA is interfaced and coordinated with the total safety program. The FOQA program is a part of the operators overall operational risk assessment and prevention program as described in [2.7 Safety Risk](#_bookmark157) [Management.](#_bookmark157)

## Data Collection

* + - 1. **Automatic data Collection**

Aircraft information is captured by Gulfstream Aerospace FORMS.

## Voluntary Data Collection

The [2.3.3 Operator Safety Risk Profile](#_bookmark132), the FlightRisk Analysis, the [2.5.3](#_bookmark145) [Hazard Identification and Tracking Form](#_bookmark145), the [2.6.3 Continuous Improvement](#_bookmark156) [Opportunity Form](#_bookmark156), and Safety/Service Issue forms (ARINC FOS) are provided as a means to allow all members of the Acme Corp team to provide voluntary data for the FOQA.

## Data Analysis

Because the true value of a FOQA system is realized in collecting large samples of data, the Director of Safety will meet quarterly with the Director of Aviation, the Director of Maintenance and the Director of Standards to correlate the Acme Corp data with other corporate aircraft. The aggregate data is then analyzed to evaluate or effect change in any or all the following areas:

1. Operational Safety
2. Aircraft Performance
3. Aircraft System Performance
4. Crew Performance
5. Company Procedures
6. Training Programs
7. Training Effectiveness
8. Aircraft Design
9. ATC System Operation
10. Airport Operational Issues
11. Meteorological Issues

## Analysis Techniques

Two types of analysis techniques are applied to FOQA data.

## Exceedance Analysis

Data will be analyzed against known standards.

## Statistical Analysis

When large databases are available, statistical tests will be applied to determine trends against known standards.

## Fatigue Risk Management Program

The Acme Corp Fatigue Risk Management Program (FRMP) is a part of the overall safety management system. The objective of the FRMP is to outline policies and procedures to all operator personnel involved in the safe operation and maintenance of the aircraft so that they do not carry out their duties when fatigued and to reduce the risks of fatigue. The Director of Safety will collect data on fatigue to further improve the management of fatigue.

## Fatigue Risk Management Policies

* + - 1. **Individual Responsibility**

Individuals are expected to report fit for duty. Employees are expected to report for duty sufficiently well rested to be able to safely perform the duties of the job. Likewise, it is the responsibility of the individual to alert the Director of Aviation when not sufficiently rested to perform safely. The Director of Aviation, in turn, must either replace that person with someone who is well rested or take measures to reschedule or adjust the schedule as required.

Individuals who are too fatigued to drive home should stay at a local hotel or have a car service drive them home.

## Absent for Fatigue

“Absent for fatigue” policy. Individual reporting absent because of fatigue will not be coerced into performing duties anyway. Repeated instances will be treated on a case by case basis, outside of normal trip times.

## Trip Scheduling, Flight Crew

Acme Corp scheduling policies assure that the organization adheres to all applicable Federal Aviation Administration flight and duty time regulations, with the additional restraints contained in [3.4](#_bookmark244) [Flight and Duty Period Limitations](#_bookmark244). Flight crews will discuss fatigue concerns, rest requirements and [3.4.2.1 WOCL Flight and Duty Limitations](#_bookmark257) operations if applicable.

## Standby Periods, Flight Crew

Standby periods for flight crew are from 0800 to 1700 local. Aircraft should be able to be airborne in five hours from initial call. During “Hot Standby” the aircraft should be able to be airborne in three hours form initial call. “Hot Standby” will be no more than two consecutive days in a row.

## Scheduling, Ground Crew

Whenever possible, ground crew personnel should plan work days during normal 0800 – 1700 hours following adequate rest. When the work load demands starting a duty day outside normal 0800 – 1700 hours, ground crew personnel should evaluate their personal fatigue levels and curtail duty periods as needed. Regardless, ground crew personnel should be aware of his/her personal fatigue limits and understand that sometimes the standard eight hour day cannot be used as the sole determinant of when it is safe or not to continue duties. The company will fully support anyone’s decision to stop work because of personal fatigue in the interest of safety.

In the case of maintenance crew, if the aircraft is not in a ready condition for subsequent flights the Director of Maintenance will determine a ready time based on the next duty period available and advise the Director of Aviation. If the aircraft will be needed prior to that period, the Director of Maintenance will contract the necessary personnel to meet scheduling requirements, if possible.

In no case will any ground crew personnel work more than 16 continuous hours in any 24 hour period.

## Reporting

Individuals may report errors and events related to fatigue to the Director of Safety, who will evaluate the incident and determine follow up actions.

Forms for reporting are contained within [2.5 Hazard Identification and](#_bookmark143) [Tracking System](#_bookmark143) and [2.6 Continuous Improvement Opportunity System](#_bookmark151). Reports of adverse events that may be attributable wholly or in part to fatigue can serve as a mechanism for obtaining all relevant information regarding fatigue contributions to the incident.

## Post Trip Review

The Chief Pilot will evaluate the results of every trip to ensure Acme Corp duty limitations, as outlined in [3.4 Flight and Duty Period](#_bookmark244) [Limitations,](#_bookmark244) are adhered to, and will investigate instances which indicate high levels of fatigue risk.

## Fatigue Risk Management Working Group

The Director of Safety will address fatigue risk management topics at the quarterly safety meeting as required. Following this meeting the Directors of Safety and the Director of Standards will review the previous quarter’s trips, HIT and CIO reports from individuals, [3.4.3 Duty Day Exception Form](#_bookmark265) and the expected schedule. The Director of Safety will report any findings and recommendations to the Director of Aviation.

## Education and Training

Fatigue is a complex topic and all crewmembers should have adequate training to understand the causes of fatigue, how an individual can maximize the benefits of rest opportunities, the use of various countermeasures to minimize the effects of fatigue, and the overall responsibilities of the individual to report for duty fit to safely perform duties. The Director of Safety will ensure all flight department members receive the training detailed in [7.17 Fatigue Management Training](#_bookmark583).

## Fatigue Risk Management/Mental and Physical Well Being

* + - 1. **General**

Personnel will be mentally and physically alert and free from any effect produced by insufficient rest, alcoholic beverages, or medically unauthorized or illegally used drugs.

## Rest/Managing Fatigue

Crewmembers are expected to use good judgment concerning adequate rest prior to duty and reporting fit for duty when under serious mental stress (i.e., serious personal problems, serious family illness, etc.). When the latter conditions exist, crewmembers are encouraged to discuss the situation with the Chief Pilot. Crewmembers should recognize the following symptoms as the onset of a potentially dangerous situation.

1. Symptoms
   1. Eyes going in and out of focus
   2. Head bobbing involuntarily
   3. Persistent yawning
   4. Wandering or poorly organized thoughts
   5. Spotty near term memory
   6. Missed or erroneous performance of routine procedures
   7. Degradation of control accuracy

**NOTE:** There are recognized counter measures for fatigue that have been shown to be effective in improving alertness and performance. These include long naps of three to four hours, which can significantly restore alertness for 12 to 15 hours.

Short or “Power Naps” of 10 to 30 minutes can help restore alertness for 3 to 4 hours. However, no “naps” will be allowed on the flight deck by crewmembers. A pilot should allow 15 to 20 minutes after awakening to become fully alert before assuming aircrew duties.

1. Other countermeasures include:
   1. Eat high protein meals (avoid high fat high carbohydrate foods)
   2. Drink plenty of fluids especially water
   3. Caffeine can help counteract noticeable fatigue symptoms if awake for 18 hours or less
   4. Rotate tasks and converse with other crewmembers (use good CRM procedures)
   5. Keep the flight deck temperature cool
   6. Move or stretch in the seat and periodically walk around the aircraft if possible
   7. Gradually shift times for sleep, meals, and exercise to adjust to new time zones

## Minimum Quarterly Duty Free Days

* + - 1. **Policy**

All pilots will be given at least 13 duty free days per quarter of which at least 5 must be scheduled in advance. The 5 day requirement is scheduled at least a month in advance, “looking forward” The 13 day requirement is evaluated after the quarter, “looking back” Vacation days, if requested, have priority and are counted as satisfying the 13 day requirement. If no vacation is used during the quarter, the 13 day requirement must still be met.

## Looking Forward

The 5 day requirement will not count as vacation time and must be requested at least a month in advance. The days need not be consecutive. Once these days are scheduled, they will only be changed with the pilot’s agreement. The Director of Aviation will normally grant the requested days unless an operational need has to be met, other pilots have training requirements or other pilots have scheduled vacation time. If a pilot has not selected 5 days off prior to the second month of a quarter, the Director of Aviation will assign the days off. The intent of these duty free days is to provide a break from duty requirements. Therefore, the 5 day duty free period cannot be scheduled immediately before or after a vacation period. There must be at least 5 days available for duty before and after.

## Looking Backward

The Director of Aviation and Flight Coordinator will monitor pilot workloads during each quarter to ensure every pilot will finish each quarter with at least 13 days free of duty. These days may include weekends, holidays, vacation days, and the 5 day looking forward duty free days. If the requirement was not met, the Director of Aviation must ensure the balance of the 13 day requirement is met in the month following the completed quarter.

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**Acme Corp**

ADMINISTRATION AND SCHEDULING

REVISION: 1

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# Administration and Scheduling

## Administration

This section defines hiring and employment policies for Acme Corp Flight Department employees and administrative procedures within the department.

## Employment Policy

It is the policy of Acme Corp to hire the best qualified person for any open position. Internal candidates may be considered before outside sources are pursued, but internal candidates must meet the same qualification and performance standards required for the position.

Selection and promotions will be based on merit and not on seniority.

Personnel being considered for employment will be expected to meet the minimum standards as set forth in this manual. However, certain individual requirements may be revised or waived when, in the opinion of the Director of Aviation, the overall qualifications of the candidate warrant such action.

Special attention will be given to the candidate’s licenses, logbooks, and any other records to assess and verify overall experience. A background investigation may be conducted and references will be checked.

## Personnel Policies

Policies presented in this section are meant to augment those established by Acme Corp Flight Department.

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ADMINISTRATION AND SCHEDULING

## Personal Conduct

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Flight Department personnel must understand that they are full time

representatives of Acme Corp Flight Department. Employees are discouraged from participating in any activity that would create a poor impression of the Flight Department or the parent corporation.

Because of the unique relationship between crewmembers and passengers, Flight Department employees must be able to comfortably switch between a purely professional role, when providing air transportation and associated services, and a more relaxed and personal role, when invited to participate in social or recreational events. They must be particularly careful not to disclose or misuse any confidential information discussed or overheard during meetings or flights with executives and business associates of Acme Corp Flight Department.

Employees will seek approval, in advance, from the Director of Aviation before:

1. Making a speech or public statement that includes information about Acme Corp Flight Department operations or business interests
2. Writing for publication, responding to a survey, or answering an author’s or reporter’s questions about the Company or the Flight Department
3. Joining an organization or participating in a group activity as a representative of Acme Corp Flight Department
4. Posting company related information to a social media network

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## Drug and Alcohol Use

*[14 CFR § 91.17 and 91.19] [NX6 2.1.3]*

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The company cannot and will not tolerate any illegal drug use or any substance abuse (including prescription and non-prescription drugs, alcoholic beverages, or other intoxicants) by Acme Corp Department members.

In compliance with this policy and 14 CFR § 91.17, employees of the Flight Department are expressly prohibited from reporting for work or attempting to perform any portion of their job responsibilities while under the influence of drugs, alcohol, or other intoxicants. Employees are further prohibited from using any drugs (for other than medical purposes) or consuming alcohol at any time while on the Company aircraft, on Company premises, or at any other location during duty hours.

For flight crewmembers, the prohibition of alcohol consumption extends to 8 hours before the performance of flight duties. The prohibition of medical drug use extends to 24 hours before flight, unless an Airman Medical Examiner (AME) certifies, in writing, that flight duties can be performed while on medication.

While away from home station, a crewmember of an aircraft may exercise temporary authority for removing a member of his/her crew from flying duties for drug or alcohol use. The Director of Aviation will be notified of such action immediately.

## Tobacco Policy

Tobacco is prohibited aboard company aircraft, and the cabin No-Smoking signs will remain illuminated throughout all flights. Deviations from this policy will be allowed only at the discretion of the CEO.

Smoking or the use of any tobacco products by crewmembers and technicians is prohibited in or around any aircraft operated by Acme Corp Department.

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## Medical Qualification

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Pilots must maintain a First-Class medical certificate issued by an Federal

Aviation Administration medical examiner.

## Crew Appearance and Readiness for Work

The professional demeanor and appearance of company flight crews demonstrate pride in themselves and their association with the company and establishes a sense of comfort with our customers.

The pilot uniform shall consist of:

1. Conservative business slacks of a plain color or subdued pattern of black, gray, or dark blue
2. An outer garment, appropriate to the weather, should be worn. This may be a suit coat which matches the slacks, a black leather jacket, or a business.appropriate heavy winter jacket
3. A long-sleeved starched dress shirt in white, blue, yellow, beige, or a conservative stripe. Shirts with patterns are not recommended. Collar points should be a conservative length and collar stays, or the equivalent, worn
4. A conservative tie of contemporary width that complements the shirt in both color and pattern. Ties should always be worn properly knotted, and never worn loose
5. Conservative black or brown dress shoes properly shined. Boots,

sandals, or other eccentric footwear are not permitted

## Scheduling

The Flight Coordinator and the Director of Aviation coordinate the availability of aircraft and crewmembers, make predeparture arrangements for flight crews and passengers, monitor the progress of trips, and complete the FOS entry and reporting requirements.

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ADMINISTRATION AND SCHEDULING

## Working Alone

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No person shall work alone in hangar (excluding office) after normal hours

of 0800-1630 without first establishing communication with security. Calls or communication will be initiated before working alone, should continue every hour, and when departing the facility.Also, there are limitations on worker activities to be applicable at any time they are alone in the facility.

Limitations during the following activities:

1. Work on ladders
2. Work on top of the aircraft fuselage or wings
3. Work on pressurized hydraulic, fuel, or airlines on the aircraft
4. Work with welding or other flame producing devices

## Passenger Manifesting

Passengers will normally be scheduled through the flight coordinator and noted in the trip leg details. Crews will ensure the flight coordinator is notified of any changes prior to departure, using text, email or voice messaging if necessary. Senior passengers may request the identities of their guests be made confidential. The names of these passengers will be made available to the dispatcher to comply with the Emergency Response Plan. Upon trip completion, any written records of the confidential guest names will be destroyed.

## Flight Schedule Changes

Changes to passenger lists, itineraries, and service requests will be communicated to the Flight Coordinator as they become known by the personal assistants. When received, the changes will be entered in the scheduling system.

Away from home base, if the crew is informed of a flight schedule change, they will contact the Flight Coordinator to initiate the required changes. In the event a trip request changes during non-business hours, the Pilot in Command (PIC) is responsible for contacting concerned parties, including passengers, other crewmembers, and maintenance personnel. Only the Flight Coordinator or personal assistants may make changes to the trip itinerary.

**NOTE:** The PIC shall not operate an aircraft with people onboard who are not identified on the passenger manifest for that trip segment. If there are enroute changes to the passenger load, the PIC must ensure the manifest is updated before takeoff. The new passenger information must be reported to the Flight Coordinator prior to departure.

**Go to Transmittal**

**Acme Corp**

ADMINISTRATION AND SCHEDULING

## Crew Scheduling

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The Director of Aviation will schedule crewmembers using the following

process:

1. Select pilots on a first in/first out rotation, availability, and ensuring they meet all requirements in the [7.26 Crewmember Record of](#_bookmark620) [Training/Proficiency Certification Form](#_bookmark620)
2. Select PIC based on any needs for special qualifications required by trip airports, routes, or passenger demands; if no special requirements exist, select PIC by checking recent trips to balance PIC versus Second in Command (SIC) workload
3. Select PIC and SIC by checking previous 90 days trip logs to ensure both pilots are day, night, and instrument current
4. Compare selected crew against previous three monthly duty reports

to ensure workload through entire flight department remains equitable; if not, attempt previous checks with another crew selection

## PIC/SIC

*[NX6 3.9.1.1]*

One crewmember will be designated as PIC by the Director of Aviation for each trip and will have overall responsibility for the aircraft and crew for the duration of that trip.

If a Acme Corp Flight Department pilot assigned as SIC is fully qualified in the aircraft, the crew can exchange left seat duties. Contact pilots assigned as SIC will fly in the right seat, even if they are PIC qualified.

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## Crew Availability

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Crewmembers are subject to assignment to flight duty, except during

required crew rest, vacations, or periods of illness. Crewmembers may be assigned to a trip, assigned as standby, or assigned off during the notification briefing time. Anyone who cannot report for flight duty due to illness or a personal emergency, who knows he/she will be late for his/her reporting time, or who cannot continue a mission for any reason will notify the Chief Pilot as soon as possible.

1. At home station:
   1. **Duty:** Assigned flight or office duty for the designated day
   2. Crewmembers will be available by telephone to respond to “pop up” trips between 0800 and 1700 LCL on weekdays, and should be able to takeoff within five hours of being notified
   3. When briefed for the next day, the crewmember is not expected to perform duties for Acme Corp Flight Department
2. Away from home station: During RONs or layovers at intermediate destinations, crewmembers are considered to be on standby duty after completing normal crew rest, and they must be available in the event of schedule changes. Between 0800 and 1700 local time (or as agreed to by the lead passenger), a crew should be available for departure.

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## Medical Fitness

*[14 CFR § 91.3]*

REVISION: 1

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A flight crewmember will not be scheduled for flying duty under the following conditions:

1. When suffering from any illness or physical incapacitation that in any manner affects the employee's ability to perform required flight crew duties
2. When the crewmember is suffering from extreme mental stress (for example, marital difficulties or the serious illness or death of a close family member) and, in the opinion of the Director of Aviation, the stress could affect the crewmember’s concentration and performance
3. When taking medication, unless it is administered by a physician and approved, in writing, for use by the employee while performing inflight crew duties
4. Within a 24 hour period following an inoculation, due to the possibility of an adverse reaction to serums
5. After a blood donation. Due to the temporary loss of blood volume and the resultant loss of oxygen carrying capability, crewmembers should not make blood donations unless absolutely necessary. Crewmembers who do donate blood must receive approval from a physician to return to flying duty
6. After scuba diving. Crewmembers must not participate in scuba diving within a 24 hour period preceding a flight. Nitrogen absorbed into the blood can cause severe physiological problems at altitude

Return to work following medical leave will be in accordance with Acme Corp Flight Department procedures.

## Flight and Duty Period Limitations

*[NX6 3.4.2.8]*

All aircraft crewmembers are expected to manage their personal time so as to be well rested when they report for work. Acme Corp pilots shall observe the flight and duty time limitations as described in this section and shall not work when fatigued. Should operational contingencies require, an extension can only be granted by the Director of Aviation or the Chief Pilot with the specific concurrence of all members of the aircraft crew. The duty day exceedance will be documented using the [3.4.3 Duty Day](#_bookmark266) [Exception Form](#_bookmark266) and kept for analysis by the Director of Safety.

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ADMINISTRATION AND SCHEDULING

## Definitions

* + - 1. **Duty Time**

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All time assigned to duty in any capacity (including administrative, training, flying and other duties) is recorded as duty time. Time spent during travel to remote locations is included in determining crew duty. Under normal circumstances duty time will start 90 minutes prior to scheduled block out time for domestic flights and 120 minutes prior to international flights.

Duty time is planned to terminate, under normal circumstances, 30 minutes post flight for domestic flights and 60 minutes post flight for international flights. Although planned duty (and flight) times are used in determining limitations, in all cases, actual planned show time and actual duty off will be recorded as the duty period for that flight day.

When transportation to and from the layover hotel is anticipated to be beyond ‘local,’ duty time will end upon reaching the hotel after arrival and then start again upon leaving the hotel for the next flight.

To provide operational flexibility the above mentioned show times can be reduced only when all flight crewmembers are in accordance that the intended reduction does not affect the safety of the operation.

The preflight and post flight times may be reduced with appropriate mitigation and only with prior approval of the Director of Aviation or Chief Pilot.

## Flight Time

Although planned flight times are used in determining limitations, flight time is considered time from the moment of initial aircraft movement under its own power for the purpose of flight until the moment it comes to rest at its next point of landing. Flight time is calculated from block to block (OUT/IN) for each flight segment.

## Rest Time

Rest time is defined as a time period free from duty by Acme Corp. Required rest periods must be consecutive, uninterrupted hours. The receipt of communication by a crewmember for the purpose of scheduling or rescheduling a flight does not interrupt the rest period. The Company will make every effort to respect the rest time that the crewmember may allocate to sleep. The crewmember may turn their phones off when necessary to ensure adequate rest.

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ADMINISTRATION AND SCHEDULING

## Standby

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A flight crewmember is on “Standby” when they are required to be available

to the Company for assignment to a potential flight duty period. Standby is considered duty time for the purpose of flight and duty time limits. The crewmember on Standby status should be prepared to be available from 0800 - 1700L unless a different standby period is specifically designated. Standby assignment requires the flight crew to be available for departure with a 3 hour hot standby or 5 hour normal standby. See [2.13 Fatigue Risk](#_bookmark196) [Management Program](#_bookmark196) Policies, Standby Periods, Flight Crew.

## Extensions

Extensions must be documented on the [3.4.3 Duty Day Exception Form](#_bookmark266), submitted to the Director of Aviation or Chief Pilot for Approval, and kept for analysis by the Director of Safety.

Refer to the [2.13 Fatigue Risk Management Program](#_bookmark196) located in the Safety Management System for fatigue mitigation techniques and policy.

## Exceedances

Flight and duty time limitation exceedances may not be planned. This means that a flight may not depart with the knowledge that a duty time or flight time limit will likely be exceeded. When a duty time or flight time limit has the potential to be exceeded, the PIC and/or Dispatcher should prearrange a latest time of departure with the lead passenger in order to prevent the necessity of postponing the flight at the last possible moment. This situation should be documented on the [3.4.3 Duty Day Exception](#_bookmark266) [Form.](#_bookmark266)

**NOTE:** The lone exception for duty day exceedance is for the final leg of the day where an unforeseen delay occurs while en route to the final destination.

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## Flight and Duty Limitations

*[NX6 3.4.2.8]*

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Operational Situation** | **Maximum Flight Time in any 24 Hour Period** | **Maximum Duty Time** | **Minimum Rest Period After Duty** | **Notes** |
| Standard – 2 Pilots | 10 Hours | 14 Hours | 10 Hours | 1, 6 |
| Extended 10/16 – 2 Pilots  (3 hours hotel) | 10 Hours | 16 Hours | 12 Hours | 1, 2, 6 |
| Extended 10/18 – 2 Pilots  (6 hours hotel) | 10 Hours | 18 Hours | 16 Hours | 1, 4, 6 |
| Extended 12/16 – 2 Pilots  (1 en route stop max) | 12 Hours | 16 Hours | 12 Hours | 1, 3, 6 |
| Augmented 15/18 – 3 Pilots | 15 Hours | 18 Hours | 24 Hours | 1, 5, 6, 7, 8 |

## NOTES:

1. Any schedule in excess of the Standard 14 hours duty day period must be approved by the flight crew and documented on the [3.4.3](#_bookmark266) [Duty Day Exception Form](#_bookmark266).
2. A minimum of 3 hours rest in a hotel.
3. No more than 1 en route stop permitted.
4. A minimum of 6 hours rest in a hotel.
5. No more than 1 en route stop permitted; a maximum of 10 hours flight deck duty time per pilot. PIC can schedule third pilot to report for duty at the en route stop.
6. Rest period must occur during a WOCL.
7. A single reclining seat must be available in the cabin.
8. At least 2 of 3 pilots must be fully PIC qualified.

**NOTE 1:** For duty periods occurring during a WOCL, see the next section, [3.4.2.1 WOCL Flight and Duty Limitations](#_bookmark258).

**NOTE 2:** Four pilot operations will require pre-positioning and are planned using the Standard WOCL or non-WOCL operational situation as two separate flight duty periods, each one its own operational situation.

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## Window of Circadian Low

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The Window of Circadian Low (WOCL) is best estimated to occur during the

hours between 0200 and 0600 local body clock time for individuals adapted to a usual day wake/night sleep schedule. This estimate is calculated from scientific data on the circadian low of performance, alertness, subjective report (i.e.,peak fatigue) and body temperature.

Circadian disruption is the result of travel that crosses multiple time zones. Fatigue management techniques require adjustment of the pilots window of circadian low to account for acclimation to the time zone at the pilots destination. For duty periods that cross three or fewer time zones, the window of circadian low is estimated to be 0200 to 0600 home base/ domicile time.

It can take as much as one day for each time zone traveled for the circadian rhythm to acclimate to the new time zone. For duty periods that cross more than three time zones, the window of circadian low is estimated to be 0200 to 0600 home base/domicile time for the first 48 hours only. After a crewmember remains away from home base/domicile more than 48 hours, the window of circadian low can be estimated to adjust at the rate of 1 hour per time zone traveled for eastward travel and 1.5 hours per time zone traveled for westward travel.

In general, the longer a flight crewmember is away from the home base/ domicile time zone, the more recovery time is needed for readjustment to home base/domicile time. Therefore, duty periods that include crossing four or more time zones and that involve 48 hours or more in a time zone away from the home base/domicile time zone require a minimum of 48 hours off duty to be scheduled upon return to home base/domicile time. This 48 hour period must encompass a minimum of two WOCL periods at the home base time zone. The crewmembers may request additional time.

Window of circadian low operations are defined as a flight duty period in which landing occurs during the WOCL, the flight passes through both sides of the WOCL, or the duty period starts at 0600 or earlier in the WOCL. The following recommended mitigation guidelines related to the window of circadian low will be applied when operations occur within the WOCL.

1. The duty period will not exceed 12 hours. The duty period will be restricted to no more than one takeoff and landing after the duty period penetrates the WOCL
2. The lone exception for duty day exceedance is for the final leg of the day where an unforeseen delay occurs while en route to the final destination. This must be documented on the [3.4.3 Duty Day](#_bookmark266) [Exception Form](#_bookmark266)

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ADMINISTRATION AND SCHEDULING

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1. A pilot may not be assigned nor accept a flight scheduled to occur

within the WOCL unless that pilot was free from all duty (including

Standby) beginning at the previous WOCL period until the planned duty start time for that flight

1. The minimum normal post duty rest will be extended to ensure that no duty is assigned before the opportunity for the crew to sleep during their next WOCL period
2. 48 continuous hours off duty required on return home following a duty period crossing more than three time zones
3. Although duty day extensions are prohibited when a flight occurs during the WOCL, the PIC must complete the[3.4.3 Duty Day](#_bookmark266) [Exception Form](#_bookmark266) to document the WOCL duty and recovery plan
4. When a WOCL operation is planned, a contingency plan must be documented on the [3.4.3 Duty Day Exception Form](#_bookmark266) in the event the flight is delayed for any reason. The contingency must remain within COM guidelines and limitations
5. Duty periods that extend unplanned into the WOCL must be documented post flight on the [3.4.3 Duty Day Exception Form](#_bookmark266) and crewmember recovery must be adjusted appropriately
6. [3.4.3 Duty Day Exception Form](#_bookmark266)s require approval by the Director of Aviation or Chief Pilot and must be submitted to the Director of Safety for analysis

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## WOCL Flight and Duty Limitations

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## NOTES:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Operational Situation** | **Maximum Flight Time in any 24 Hour Period** | **Maximum Duty Time** | **Minimum Rest Period After Duty** | **Notes** |
| Standard WOCL 10/12 – 2 Pilots | 10 Hours | 12 Hours | 16 Hours | 1, 2, 3 |
| Augmented WOCL 15/ 18 – 3 Pilots | 15 Hours | 18 Hours | 24 Hours | 1, 2, 4, 5, 6 |

1. A flight and/or duty period that occurs within a WOCL may not be extended and must be documented on the [3.4.3 Duty Day Exception](#_bookmark266) [Form](#_bookmark266).
2. The minimum rest period after duty must encompass an acclimated WOCL period.
3. The duty period is restricted to no more than one takeoff and landing after the duty period penetrates the WOCL.
4. No more than 1 enroute stop permitted; a maximum of 10 hours flight deck duty time per pilot. The PIC can schedule additional pilot to report for duty at the enroute stop (preferred.)
5. A single reclining seat must be available in the cabin.
6. At least 2 of 3 pilots must be fully PIC qualified.

Four pilot operations will require pre-positioning/crew swap and are planned using the Standard WOCL or non-WOCL operational situation as two separate flight duty periods, each one its own operational situation.

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## Acclimated WOCL

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It can be helpful to estimate the WOCL period to which the crewmembers

have acclimated in order to plan subsequent flights to remain outside of the flight crew’s acclimated WOCL. The window of circadian low can be estimated to adjust at the rate of 1 hour per time zone for eastward travel and 1.5 hours per time zone for westward travel.

When a trip is expected to return to home base/domicile so that the crew- members are at a different time zone for 48 hours or less, the crewmembers should make every effort to maintain their home base/domicile WOCL period. Hence, any subsequent flights should consider the crew’s home base/domicile WOCL period.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Δ Time Zone Days Away** | **4** | **6** | **8** | **10** | **12** | **14** |
| **3** | E 0300-0700  W 0200-0600 | E 0500-0900  W 0100-0500 | E 0700-1100  W 0000-0400 | E 0900-1300  W 2200-0200 | E 1100-1500  W 2100-0100 | E 1300-1700  W 2000-0000 |
| **4** | 0200-0600 | E 0400-0800  W 0200-0600 | E 0600-1000  W 0100-0500 | E 0800-1200  W 2300-0300 | E 1000-1400  W 2200-0200 | E 1200-1600  W 2100-0100 |
| **5** | 0200-0600 | E 0300-0700  W 0200-0600 | E 0500-0900  W 0200-0600 | E 0700-1100  W 0000-0400 | E 0900-1300  W 2300-0300 | E 1100-1500  W 2200-0200 |
| **6** | 0200-0600 | 0200-0600 | E 0400-0800  W 0200-0600 | E 0600-1000  W 0100-0500 | E 0800-1200  W 0000-0400 | E 1000-1400  W 2300-0300 |
| **7** | 0200-0600 | 0200-0600 | E 0300-0700  W 0200-0600 | E 0500-0900  W 0200-0600 | E 0700-1100  W 0100-0500 | E 0900-1300  W 0000-0400 |
| **8** | 0200-0600 | 0200-0600 | 0200-0600 | E 0400-0800  W 0200-0600 | E 0600-1000  W 0200-0600 | E 0800-1200  W 0100-0500 |
| **9** | 0200-0600 | 0200-0600 | 0200-0600 | E 0300-0700  W 0200-0600 | E 0500-0900  W 0200-0600 | E 0700-1100  W 0200-0600 |
| **10** | 0200-0600 | 0200-0600 | 0200-0600 | 0200-0600 | E 0400-0800  W 0200-0600 | E 0600-1000  W 0200-0600 |

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## Estimated WOCL Period at Local Time

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**Example 1:** Westward travel that spans 10 time zones may require 7 days

to fully acclimate to the new time zone. If the next flight is planned 4 days after arrival, every effort should be made to plan the duty period outside of the crew’s acclimated WOCL period of 2300-0300L time.

**Example 2:** Eastward travel that spans 6 time zones may require 6 days to become fully acclimated. If the next flight is planned 3 days after arrival, every effort should be made to plan the duty period outside of the crew’s acclimated WOCL period of 0500-0900L time.

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## Duty Day Exception Form

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Any schedule in excess of the Standard 14 hours duty day must be

accepted by the flight crew and documented on the Duty Day Exception Form, then submitted to the Chief Pilot, Director of Standards, or the Director of Safety for approval and analysis.

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| ϰ͘ | A ŵŝŶŝŵƵŵ ŽĨ ϲ ŚŽƵƌƐ ƌĞƐƚ ŝŶ Ă ŚŽƚĞů͘ |  | ĂĐĐůŝŵĂƚĞĚ tKC> ƉĞƌŝŽĚ͘ |
| ϱ͘ | A ŵĂǆŝŵƵŵ ŽĨ ϭϬ ŚŽƵƌƐ ĨůŝŐŚƚ ĚĞĐŬ ĚƵƚǇ ƚŝŵĞ ƉĞƌ ƉŝůŽƚ͘ | ϴ͘ | dŚĞ ĚƵƚǇ ƉĞƌŝŽĚ ŝƐ ƌĞƐƚƌŝĐƚĞĚ ƚŽ ŶŽ ŵŽƌĞ ƚŚĂŶ ŽŶĞ ƚĂŬĞŽĨĨ |
|  | W/C ĐĂŶ ƐĐŚĞĚƵůĞ ƚŚŝƌĚ ƉŝůŽƚ ƚŽ ƌĞƉŽƌƚ ĨŽƌ ĚƵƚǇ Ăƚ ƚŚĞ ĞŶ |  | ĂŶĚ ůĂŶĚŝŶŐ ĂĨƚĞƌ ƚŚĞ ĚƵƚǇ ƉĞƌŝŽĚ ƉĞŶĞƚƌĂƚĞƐ ƚŚĞ tKC>͘ |
|  | ƌŽƵƚĞ ƐƚŽƉ ;ƉƌĞĨĞƌƌĞĚ͘Ϳ | ϵ͘ | A ƐŝŶŐůĞ ƌĞĐůŝŶŝŶŐ ƐĞĂƚ ŵƵƐƚ ďĞ ĂǀĂŝůĂďůĞ ŝŶ ƚŚĞ ĐĂďŝŶ͘ |

**AĚĚƌĞƐƐ >ŝŵŝƚĂƚŝŽŶƐ ĂŶĚ KƚŚĞƌ DŝƚŝŐĂƚŝŶŐ CŝƌĐƵŵƐƚĂŶĐĞƐ͕ CŽŶƚŝŶŐĞŶĐǇ͕ ZĞĐŽǀĞƌǇ͗**

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**CƌĞǁ AĐŬŶŽǁůĞĚŐĞŵĞŶƚ͗**

**Acme Corp**

ADMINISTRATION AND SCHEDULING

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## Duty Time Limitations for Non-Aircraft Personnel

When scheduling, Acme Corp Flight Department employees shall limit their duty days to 12 hours, and shall carefully consider the safety risks associated with fatigue and its cumulative effects.

Non-aircraft personnel shall report for duty adequately rested and comply with applicable labor regulations.

## Maintenance Personnel Duty Periods

*[NX6 3.4.2.8]*

Technicians will not be scheduled for duty periods longer than 10 hours. A Technician may extend duty up to 16 hours, but must notify the Director of Maintenance. Approval will be granted if deemed safe.

Following any 10 hour shift or greater, maintenance personnel must receive at least 11 hours off duty, ensuring nine hours of uninterrupted rest. All maintenance personnel have the ability to discontinue maintenance operations when they are fatigued. The Director of Safety will be notified any time maintenance operations are discontinued due to fatigue.

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## Table C – Maintenance Duty Period

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**NOTE**: See section [2.13.1.5 Scheduling, Ground Crew](#_bookmark200) for 16 contentious hour limit.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table C Maintenance Duty Period**  **24-Hour Period** | | | | |
| **Type of Operation** | **Duty Period (maximum hours)** | **Off Duty Period (maximum hours)** | **Extension Type** | **Extension Approval Authority** |
| Standard | 10 | 11 | Up to 1 | The Technician may extend duty up to 1 hour, the Director of Maintenance must be notified |
| Extended 1 |  | 10 | More than 1 and less than 2 | Authorization from the Director of Maintenance and Director of Safety notification |
|  | 10 | 2 or more (total 12 or more) | The Director of Maintenance will make a request to the Director of Aviation, who will consult with the Director of Safety and complete a Risk Assessment |
| **NOTES:**  1. Extended Maintenance is defined as any operation with a duty period greater than 11 hours | | | | |

## Flight Records

*[NX6 3.11.3]*

Accurate records of flight activity are required to satisfy business and regulatory requirements.

## Aircraft Records

Aircraft Records will have an Inspection Status Report which shows the airworthiness status of the aircraft. This report will show when required inspections, checks, tests, etc. are due.

Aircraft Records will be available electronically during all flights. The PIC will inspect the documents in the Aircraft Records prior to flight and determine the following:

1. Aircraft has been returned to service in an airworthy condition
2. Status of any discrepancies recorded on a previous flight
3. Status of open or deferred items and crew and/or maintenance actions required

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## Recordkeeping

*[14 CFR § 91.417] [NX6 2.6.2.2 and NX6 2.6.2.3]*

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The following records will be kept for each flight and retained by the Flight Department:

1. Director of Aviation:
   1. FOS entry 5 Years
   2. Trip Sheet 5 Years
   3. Flight Schedules 3 Years
   4. Pilot qualification/training records 3 Years
   5. Aircraft operating expenses 5 Years
2. Director of Maintenance:
   1. Aircraft Maintenance Log 5 Years
   2. Deferred Maintenance Log 5 Years
   3. Permanent aircraft records Until aircraft is sold
   4. Aircraft Flight Logbook Until aircraft is sold

## Personnel Qualified to Taxi Aircraft

*[NX6 2.2.2.1]*

Aircraft may be taxied by qualified pilots or mechanics. The aircraft will not be moved without at least two qualified personnel in the pilots' seats.

Qualification requirements include:

1. Has been authorized by the Director of Aviation as competent to taxi aircraft and has record of this authorization in his/her personnel training folder
2. Is qualified to use the radio if radio communications are required
3. Has received instruction from a qualified person on airport layout and, where appropriate, information on routes, signs, markings, and lights
4. Has received instruction from a qualified person in ATC signals, instructions, phraseology, and procedures
5. Is able to conform to operational standards required for safe aircraft movement at the airport

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OPERATIONAL CONTROL AND FLIGHT PLANNING

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# Operational Control and Flight Planning

## Operational Control System

Operational control means the exercise of authority over the preparation, filing, and amendment of a pilot’s FOS entry (or equivalent) and a flight plan in respect to a flight, and the subsequent flight following during the course of the flight until it arrives at its destination.

## General Description

The Flight Coordinator is the principal contact with the lead passengers and their assistants. The Flight Coordinator will obtain sufficient trip information from requesters prior to determining aircraft availability. The process is as follows:

1. Receive trip request
2. Ensure adequate trip details are listed
3. Determine aircraft and flight crew availability
4. Obtain Director of Aviation approval (if needed)
5. Enter into scheduling system
6. Coordinate relevant details with the Pilot in Command (PIC)

## Flight Following and Flight Watch

The PIC will keep the Flight Coordinator informed on the progress of the trip. If the aircraft is unable to depart by the scheduled departure time plus thirty minutes, crew will advise the Flight Coordinator of the new ETD. The Flight Coordinator will initiate aircraft overdue procedures found within [6.8](#_bookmark526) [Reporting Aircraft Overdue](#_bookmark526) of this COM. An accurate passenger list must be maintained by the Flight Coordinator and also be updated prior to each departure. These procedures will be used:

1. The passenger list on the Trip Sheet will be the basis for changes. Any changes in the passenger list will be communicated in terms of “add (name) to” and/or “delete (name)” from this list
2. Changes may be communicated by the most expeditious means available as long as they are sent prior to departure

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The PIC will ensure that departure and arrival messages are passed to the

Flight Coordinator via AFIS, phone, voice mail, or text mail. The Flight

Coordinator will also be informed anytime a delay of 30 minutes or more is expected. The Flight Coordinator will provide this information to the Director of Maintenance. If the Flight Coordinator has not done so, the PIC will call and inform the Director of Maintenance of changes.

## Responsibilities and Authorities

*[14 CFR § 91.3, 91.7, 91.9, 91.103, 91.175, 91.703 and 91.801]*

*[NX6 2.1.1.1, NX6 2.1.1.2, NX6 2.1.1.3, NX6 2.2.3.1(a)(c), NX6*

*2.3.1.1(a)(b), NX6 2.4.9, NX6 2.8.1, NX6 2.9.1, NX6 3.3.1.1, NX6 3.3.1.2,*

*NX6 3.3.1.3, NX6 3.3.1.4, NX6 3.4.3.1(a)(b)(c), NX6 3.5.2.2, NX6 3.5.2.4*

*and NX6 3.6.2.2]*

No pilot will accept an aircraft for flight that has not been released by flight operations and by the maintenance department. The operational control of a flight is delegated to the PIC.

A flight will be considered released when the PIC has:

1. Determined that the flight can be conducted in accordance with FAA regulations and ICAO standards
2. Reviewed and understands applicable laws, regulations, and procedures pertinent to the performance of his/her duties, in the areas to be traversed, the airport to be used, and the air navigation facilities relating to the trip
3. Ensured that crewmembers are familiar with information needed to perform their duties

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1. Verified the validity of required licenses, permits, and certificates and

that required current equipment, documents, and manuals are

onboard the aircraft, These include:

|  |  |
| --- | --- |
| Aeronautical Charts | Intercept Procedures |
| Aeronautical Information Publications | Emergency Response Program |
| Aircraft Certificate of Airworthiness | Appropriate Letters of Authorization |
| Aircraft Certificate of Registration | Fuel Credit Cards |
| Aircraft Flight Logbook | Insurance Certificates |
| AFM | COM |
| Aircraft MEL | Overflight Waivers |
| Aircraft Noise Certification | Radio Telephone License or Permit |

1. Confirmed that required aircraft maintenance has been completed, the aircraft Certificate of Airworthiness is valid, and sufficient time remains on the aircraft to complete the trip for which the aircraft is being released before the next required maintenance is due
2. Confirmed that the aircraft is equipped with the equipment required by the state and airspace in which the flight is conducted
3. Determined that meteorological conditions are such that the flight can be conducted safely and in accordance with the CFRs
4. Confirmed that the essential information concerning the search and rescue services in the area over which the aircraft will be flown is available on board the aircraft such as the number, color and type of life rafts, life jackets and pyrotechnic, emergency medical supplies and frequencies of the emergency radio equipment

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## Flight Planning

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*[14 CFR § 91.7 and 91.103] [NX6 2.1.1.2, NX6 2.2.1, NX6 2.2.3.1(b), NX6*

* + 1. *, and NX6 3.4.3.3]*

Flight planning is the responsibility of the PIC. Available weather and operational information will be used to plan a route that will provide the appropriate balance of passenger comfort and economy of operation. The route of flight, cruising speed, and altitude must be carefully chosen to afford maximum operating efficiency of the aircraft. The PIC is responsible for ensuring instruments and equipment installed in the aircraft are appropriate for expected flight conditions and that the facilities available and required for the flight are adequate, including communication facilities, navigation aids, NOTAMs, etc. to operate in a safe manner.

## Flight Plans

Flight plans will normally be filed 30 minutes or more before scheduled departure time.

1. **Instrument Flight Rules (IFR):** IFR flight plans will be filed for passenger and special flights, and, whenever possible, for other operations
2. **Visual Flight Rules (VFR):** Flight plans may be used at the PIC’s discretion for local area training or maintenance check flights, when VFR conditions are better suited for the mission. VFR night is not authorized

## Flight Planning and Preflight Requirements

*[14 CFR § 91.103 and 91.155] [NX6 2.2.3.4.1]*

Flights will be flown using an IFR flight plan to the maximum extent possible. Prior to flight, the PIC shall monitor information relevant to the intended flight path and plan an alternative course of action to be employed as weather conditions may require.

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## Flight Planning

*[NX6 2.2.1 and NX6 3.4.1]*

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The Acme Corp Flight Department flight planning area is organized to provide the crew with required flight planning information.

Services and flight plans will be filed with a Company approved service.

The Company will maintain these reference materials:

1. Code of Federal Regulations
2. Aeronautical Information Manual
3. ICAO standards
4. Acme Corp Flight Department COM
5. AFM
6. Training center manual for assigned aircraft
7. Enroute charts
8. Instrument approach plates
9. Airport and FBO directories
10. Airport PCN or equivalent calculations

## Weather Briefings

*[14 CFR § 91.103, 91.155 and 91.169] [NX6 2.2.3.3 (a) and NX6 2.2.3.4.1]*

Flight crews will use available information to receive accurate and timely weather information for the flight. The PIC will receive updated weather for the destination and alternates. Flight crews will obtain a thorough weather briefing prior to each flight.

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## Operating Weather Minima

*[14 CFR § 91.155 and 91.175]*

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*[NX6 2.2.2.2.1, NX6 2.2.3.4.1, NX6 3.4.2.6 and NX6 3.4.2.7.1] [Amendment*

*37 Part 2 NX6 2.2.2.2.1 and Amendment 37 Part 3 NX6 3.4.2.7.1]*

The following guidance is provided for the operation of Acme Corp Flight Department aircraft. Minimum altitudes for IFR are provided in the appropriate company used approach plates.

1. **VFR:** A VFR flight shall not be commenced unless current weather reports and/or forecasts indicate that weather conditions along the route and at the destination at the appropriate time will be such that the flight can be conducted in compliance with VFR. Acme Corp aircraft will not be operated VFR at night.
2. **IFR:** The weather minima used for IFR departures and approaches shall not be lower than the specified minimums established on the instrument departure and approach plates, unless approved by the FAA with the appropriate LOA approval for Acme Corp.

Acme Corp Flight Department aircraft shall be operated in accordance with the weather minima specified in the state civil aviation regulations in which the aircraft is being operated.

## VFR Airport Departure

In circumstances where flight crews have communications difficulty and it is not otherwise possible to receive an IFR clearance on the ground prior to departure, the aircraft may depart under Visual Flight Rules if the aircraft can remain in VMC conditions and stay within 15 miles of the departure airport while contacting a control agency for the IFR clearance. For VFR departures lacking a clearance, a reported ceiling and visibility is required. Lacking an official ceiling and visibility report, pilots are authorized to make their own weather observation. Designated mountainous areas without a clearance will require a reported ceiling of at least 2000 feet above the highest terrain within the departure area and a visibility of at least 5 miles. In other than mountainous areas, a reported ceiling of at least 2000 feet and visibility of at least 3 miles is required.

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## VFR Arrivals

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The flight crew may operate under VFR in the terminal area if the following

conditions are met:

1. If a non-towered airport does not have a published and operational IAP, a suitable alternate must have been filed
2. Reported ceiling should be at least 2000 feet or sufficient to allow descent from MEA or, if off airway, from minimum vectoring altitude for the approach and landing under basic VFR visibility of at least 3 miles (14 CFR § 91.155, 91.169(c)(2). If a weather report is not available, pilots are restricted to descents to MEA (if on a published airway) or MVA only until the airport is clearly in sight and assured to remain so throughout the approach and landing. Pilots may not leave MEA or MVA until within 10 NM of the airport
3. In mountainous terrain, the ceiling should be 2000 feet above the highest terrain and the visibility should be at least 5 miles. If the weather is below these minimums, pilots should be prepared to change their destination to the filed alternate, as airport contact may not be possible from the higher of MEA or minimum vectoring altitudes. Pilots are reminded that minimum distances from clouds as specified in 14 CFR § 91.155 are required when operating VFR within this type of airspace
4. Circling approaches will not be flown at night without an operating FAA control tower, except at airports designated by the Director of Aviation. The airports currently authorized for night circling without an operating tower are:
   1. KBCT - Boca Raton, FL
   2. KBED - Hanscom Field, Bedford, MA
   3. KMDW - Chicago Midway, IL
   4. KPWK - Chicago Executive, IL

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## Takeoff Alternate

*[NX6 3.4.3.4.1.1, NX6 3.4.3.4.1.2 and NX6 3.4.3.4.1.3]*

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Acme Corp pilots will file an alternate airport except the following conditions:

A takeoff alternate is required anytime the departure airport is below published landing minimums. No takeoff will be made under these circumstances unless there is a suitable alternate airport within one hour's flying time at cruise speed with one engine inoperative. The weather forecast for the time of arrival at the takeoff alternate must be at or above standard alternate or published alternate minimums.

## When No Destination Alternate Airport is Required

*[14 CFR § 91.103, 91.169 and 91.175] [NX6 2.2.3.4.3 and NX6 2.2.3.5]*

A destination airport does not require an alternate airport in accordance with IFR when these conditions exist:

1. The duration of the flight from the departure airport, or from the point of inflight replanning, to the destination airport is such that, taking into account all meteorological conditions and operational information relevant to the flight at the estimated time of use, a reasonable certainty exists that:
   1. The approach and landing may be made under visual meteorological conditions
   2. Separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure

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1. The airport of intended landing is isolated and:

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* 1. A standard instrument approach procedure is prescribed for the

airport of intended landing

* 1. A point of no return has been determined
  2. A flight shall not be continued past the point of no return unless available current meteorological information indicates that the following meteorological conditions will exist at the estimated time of use:
     1. A cloud base of at least 1000 ft above the minimum associated with the instrument approach procedure
     2. Visibility of at least three miles or of two miles more than the minimum associated with the procedure

## Destination Alternate Airport Criteria

*[14 CFR § 91.103, 91.169 and 91.175] [NX6 2.2.3.3 (b), and NX6 2.2.3.4.2]*

When a destination alternate is required, at least one destination alternate airport shall be selected and specified in the flight plan. To qualify as an alternate, the following meteorological conditions must be forecast at the ETA to meet standard alternate minimums.

In addition to the meteorological requirements for alternate airports, the airport must meet servicing and performance standards for Acme Corp aircraft.

One destination alternate airport should be selected and specified in the flight plan if the destination airport has only one usable runway with an operational instrument approach procedure at the estimated time of use.

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## When a Destination Alternate Airport Is Required

*[14 CFR § 91.163 and 91.167]*

*[NX6 2.2.3.3 (b), NX6 2.2.3.4.2, NX6 2.2.3.4.3, NX6 3.4.3.4.1]*

A destination alternate airport is required unless appropriate weather reports or weather forecasts, or a combination of them, indicate for at least one hour before and for one hour after the ETA, the ceiling will be at least 2000 ft above the airport elevation and the visibility will be at least three statute miles.

## Fuel Requirements

*[14 CFR § 91.167]*

*[NX6 2.2.4.9.1, NX6 2.2.4.9.2, NX6 2.2.4.9.3, NX6 3.4.3.5.5, NX6 3.4.3.6.1,*

*NX6 3.4.3.6.2, NX6 3.4.3.6.3, NX6 3.4.3.6.4 and NX6 3.4.3.6.5]*

1. The PIC shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an airport where a safe landing can be made with the planned final reserve fuel remaining upon landing
2. The use of fuel after flight commencement for purposes other than originally intended during preflight planning shall require the PIC to recalculate and, if applicable make an adjustment to the planned operation
3. The PIC shall advise ATC of a minimum fuel state by declaring “MINIMUM FUEL” when, having committed to land at a specific airport, the pilot calculates that any change to the existing clearance to that aircraft may result in landing with less than planned final reserve fuel
4. When the calculated usable fuel predicted to be available upon landing at the nearest airport where a safe landing can be made is less than the planned final reserve fuel the PIC shall declare a situation of fuel emergency by broadcasting “MAYDAY MAYDAY MAYDAY fuel.” when the calculated usable fuel predicted to be available upon landing at the nearest airport where a safe landing can be made is less than the planned final reserve fuel

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## IFR Fuel Flight Planning

*[14 CFR § 91.167]*

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*[NX6 2.2.3.6.1(a)(b), NX6 3.4.3.5.1, NX6 3.4.3.5.2, NX6 3.4.3.5.3 and NX6 3.4.3.6.1]*

Taking into account both the meteorological conditions and any expected inflight delays, an IFR flight shall commence only if the airplane carries sufficient fuel to ensure that it can safely complete the flight. Crews will plan to land with no less than 3000 lbs of fuel or what is required by 14 CFR § 91.167.

## VFR Fuel Flight Planning

*[14 CFR § 91.151] [NX6 2.2.3.6.1(c)(d), NX6 3.4.3.5.1, NX6 3.4.3.5.2, NX6*

*3.4.3.5.3 and NX6 3.4.3.6.1]*

Taking into account both the meteorological conditions and any expected inflight delays, an VFR flight shall commence only if the airplane carries sufficient fuel and oil to ensure that it can safely complete the flight. When applicable, these special provisions also must be met:

1. When the flight is conducted in accordance with the visual flight rules by day, flight to the airport of intended landing, and after that, for at least 30 minutes at normal cruising altitude
2. VFR flight at night is prohibited

## Additional Fuel Computations

*[14 CFR § 91.151, 91.153 and 91.167] [NX6 2.2.3.6.2, NX6 3.4.3.5.1, NX6*

*3.4.3.5.2 and NX6 3.4.3.5.3]*

In addition, sufficient fuel shall be provided for:

1. Taxiing and foreseeable delays prior to takeoff
2. Meteorological conditions
3. Foreseeable air traffic routings and traffic delays
4. Landing at a suitable airport in the event of loss of cabin pressurization or failure of any engine at the most critical point during the flight
5. Any other foreseeable conditions that could delay the landing of the aircraft

The PIC will verify that the computed final reserve fuel meets both the State of Registry and State of Operations Requirements at a minimum.

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## Takeoff and Landing Distance Requirements

*[NX6 3.5.2.4, NX6 3.5.2.5, NX6 3.5.2.7 and NX6 3.5.2.7.1] [Amendment 38*

*Part 3 NX6 3.5.2.5]*

Operations will be conducted in accordance with Certificate of Airworthiness, AFM limitations, and aircraft performance charts.

When looking at aircraft performance, accounts shall be taken in for all factors that significantly affect the performance of the aircraft such as:

1. Weight
2. Operating procedures
3. Pressure altitude appropriate to the elevation of the airport
4. Runway slope
5. Ambient temperature
6. Wind
7. Surface condition of the runway at the expected time of use, i.e. presence of slush, water and/or ice).

Such factors shall be taken into account directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the aircraft is being operated.

## Runway Requirement

Acme Corp aircraft will not be scheduled to operate to or from a hard surface runway with less than 75 ft of width and a minimum length of 4500 ft.

**NOTE:** Crews should consider reducing allowable crosswind for any operations with a runway less than 150 ft wide. Runways less than 100 feet in width require either a full length taxiway or turn around pads at each end of the runway.

The Director of Aviation may waive these requirements, but only on a case by case basis after considering all factors, including weather conditions for the day, landing weight, experience of the crew, etc. A COM Waiver will be used to authorize the deviation.

In no case will the aircraft be operated to or from a runway that is insufficient in length or width to meet the landing or takeoff requirements as set forth in the performance section of the AFM.

It is up to the PIC to make the final decision to ensure the aircraft performance is adequate for a safe takeoff and landing.

**Go to Transmittal**

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## Runway Conditions

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1. **Takeoff:** No takeoff will be attempted from a runway that is covered

with water, wet snow, or slush, exceeding the amounts specified in the AFM

1. **Nil Braking Action:** No operations will be conducted on a runway if braking conditions are reported nil or RCAM of one or lower by crews operating like aircraft or determined to be nil by the Acme Corp Flight Department flight crew

The PIC will use full runway length unless an intersection takeoff can be made on a suitable section of the runway, and runway limitations for takeoff are followed.

## Takeoff Performance

*[NX6 3.5.2.4, NX6 3.5.2.5, NX6 3.5.2.7 and NX6 3.4.2.7.1]*

No pilot will operate a company aircraft unless the runway for takeoff has a length equal to or greater than the takeoff distance specified in the AFM for:

1. Aircraft weight and configuration
2. Runway elevation and surface conditions
3. Temperature and wind conditions

In the event of a critical power unit failing at any point in the takeoff, either discontinue the takeoff and stop within either the accelerate stop distance available or the runway available, or continue the takeoff and clear obstacles along the flight path by an adequate margin until the aircraft is in a position to comply.

Takeoff field lengths will allow for a minimum of 1000 feet of additional runway available in all takeoff modes.

**Acme Corp**

OPERATIONAL CONTROL AND FLIGHT PLANNING

## Oxygen Supply Requirements

*[14 CFR § 91.211]*

REVISION: ORIGINAL

DATE: 03/03/22

*[NX6 2.2.3.8 and NX6 2.4.6.2, NX6 3.4.3.9.1, NX6 3.4.3.9.2, and NX6*

*3.4.4.2.1]*

The PIC will not commence a flight unless a sufficient quantity of stored oxygen is carried to supply crewmembers and passengers, as is appropriate to the flight.

Flights conducted above 10,000 feet will have an operable pressurization warning system.

## Unpressurized Aircraft

*[14 CFR § 91.211]*

*[NX6 2.2.3.8, NX6 2.2.4.7, NX6 2.4.6.1, NX6 3.4.3.9.1, NX6 3.4.3.9.2, NX6*

*3.6.3.5.2 and NX6 3.6.3.5.3]*

Acme Corp Flight Department does not operate unpressurized aircraft.

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OPERATIONAL CONTROL AND FLIGHT PLANNING

## Pressurized Aircraft

*[14 CFR § 91.211]*

REVISION: ORIGINAL

DATE: 03/03/22

*[NX6 2.2.3.8, NX6 2.2.4.7, NX6 2.4.6.1, NX6 3.4.3.9.1, NX6 3.4.3.9.2, NX6*

*3.4.4.2.2, NX6 3.6.3.5.2 and NX6 3.6.3.5.3]*

The requirements to operate pressurized aircraft are as follows:

1. At flight altitudes above FL250, unless at least a ten minute supply of supplemental oxygen is available for each occupant of the aircraft for use in the event that a descent is necessitated by loss of cabin pressurization
2. At flight altitudes above FL350, one pilot at the controls of the airplane must wear and use an oxygen mask that is secured and sealed and that either supplies oxygen at times or automatically supplies oxygen whenever the cabin pressure altitude of the airplane exceeds 14,000 ft
3. If for any reason at any time it is necessary for one pilot to leave the controls of the aircraft when operating at flight altitudes above FL350, the remaining pilot at the controls shall put on and use an oxygen mask until the other pilot has returned to that crewmember’s station

## Reduced Vertical Separation Minima Planning

*[14 CFR § 91.180] [NX6 2.5.2.9] [Amendment 37 Part 2 NX6 2.5.2.7 and*

*NX6 2.5.2.11]*

For international travel, a Letter of Authorization (LOA) issued by the FAA for the aircraft to be flown into RVSM international airspace is required.

Prior to flight into RVSM international airspace, the PIC must:

1. Verify that the aircraft is approved for RVSM operations
2. Annotate the flight plan to be filed with the air traffic service provider to show that the aircraft and operator are approved for RVSM operations
3. Check minimum equipment requirements pertaining to height keeping systems
4. Height monitoring programs will be completed for Acme Corp Flight Department every two years or 1000 flight hours, whichever is longer

**Acme Corp**

OPERATIONAL CONTROL AND FLIGHT PLANNING

## International Operations

*[NX6 3.3.1.1, NX6 3.3.1.2, NX6 3.3.1.4 and NX6 3.3.1.5]*

REVISION: ORIGINAL

DATE: 03/03/22

Flights operating out of one country into another will, except when departing the U.S., depart from international airports, and must arrive at international airports of entry.

During flight operations into or over foreign territory and through the control of any agency of a foreign government, the orders of that agency with regard to the conduct of that flight shall be closely observed except where any rule(s) set down or prescribed in the 14 CFRs provided a higher standard of safety and may be followed without violating the rules of such host country.

For international operations the Chief Pilot will ensure that:

1. The aircraft requested is appropriate to the operation to be conducted per Acme Corp’s LOAs
2. Flight crewmembers have received initial or recurrent training on international flight operations within the past 24 months as documented in their training folders
3. Crewmembers assigned for foreign flights have met the passport, immunization, and experience requirements
4. Aircraft equipment required for operations in areas designated as special navigation airspace is installed and operating properly

Further guidelines can be found in the Acme Corp International Flight Operations Manual (IFOM).

## Computerized Flight Plan – Master Document

*[NX6 2.8.2.1, NX6 2.8.2.2, and NX6 3.4.5.4]*

Acme Corp flight crewmembers will use a copy of the computerized flight plan as a master document and label it MASTER. The master document will be retained as the record of the flight. Therefore, as much information about the flight as possible should be logged on the master document to include on and off times, ATIS, altimetry, clearances, HF assignments, and any other pertinent information. The PF will be responsible for entering information on the FOS entry, except where noted.

**NOTE:** Flight crews shall retain a journey logbook (in paper or electronic form) containing the particulars of the aircraft, crew, reporting points, communication problems, and any unusual circumstances surrounding the flight for at least 90 days following an oceanic crossing.

**Go to Transmittal**

**Acme Corp**

OPERATIONAL CONTROL AND FLIGHT PLANNING

## Special Operations Airport Checklist

REVISION: ORIGINAL

DATE: 03/03/22

Airport Identifier:

**Section A – Airport Risk Factors**

Date:

1. Airport restrictions (if any) ͺͺͺͺͺͺͺ
2. Special Operations Airport List (on Tripsheet) Notes:
3. Restrictions on Airport Briefing Pages or Airport Directory (if any):

|  |  |
| --- | --- |
| 4. Does the airport have approach/departure radar control? | Y/N |
| 5. Dose the airport have a control tower and will it be in operation? | Y/N |
| 6. Is English the controller’s primary language? | Y/N |
| 7. Are precision approaches available? | Y/N |
| 8. Are there published departure and approach procedures? | Y/N |
| 9. Does local terrain exceed normal circling altitudes? | Y/N |
| 10. Does the airport have de-ice / anti-ice if required? | Y/N |

**Section B – Aircraft Performance Factors**

1. Aircraft approach weight will be limited by ( )
   1. Missed approach climb gradient
   2. AFM/AOM maximum aircraft landing weight
   3. ACN/PCN
   4. Other:
2. Aircraft departure weight will be limited by ( )
   1. Climb gradient due to obstacle or departure procedure requirement
3. Runway length
4. AFM/AOM maximum aircraft takeoff weight
5. ACN/PCN
6. Other:

**Section C – Pilot Experience and Familiarization Factors**

1. Has either pilot flown into and out of the airport before? Y/N
2. If you have not been there before, have you seen it in the simulator, reviewed airport with someone who has, or viewed other familiarization tools? Y/N
3. Are both pilots proficient? (More than 50 hours in the last 90 days) Y/N *Note: The answers to any “Y/N” questions are not disqualifying but should be considered when evaluating the overall risk of operating at this airport.*

Pilot Name:

Signature:

Aircraft N

**Acme Corp**

OPERATIONAL CONTROL AND FLIGHT PLANNING

## Aircraft Weight and Balance

REVISION: ORIGINAL DATE: 03/03/22

*[14 CFR § 91.7 and 91.103] [NX6 2.2.3.1(d), NX6 3.4.3.1(d) and NX6 3.5.2.6]*

The PIC is responsible for the proper loading, including load security, weight, and weight distribution. To ensure the aircraft is loaded in compliance with applicable weight and balance limitations, the following methods of calculation may be used:

1. Weight and Balance calculation procedures provided in the Weight and Balance section of the Airplane Flight Manual
2. GAC Plane Balance application
3. ARINCDirect software
4. Other computerized software approved by the Director of Aviation

The takeoff and landing weights shall not exceed the maximum weights specified in the approved AFM.

Aircraft takeoff and landing weights shall not exceed limits that would prevent the aircraft from meeting performance requirements for takeoff, enroute, and landing at any airport used.

## Airworthiness

*[14 CFR § 91.7] [NX6 2.4.1 and NX6 2.4.2.1]*

In accordance with 14 CFR § 91.7, it is the responsibility of the PIC to ensure that the aircraft Certificate of Airworthiness is valid before commencing a flight. The Certificate of Airworthiness of an aircraft is not valid unless the equipment, systems, and instruments prescribed in the applicable airworthiness standard and required equipment is functioning correctly. The Director of Maintenance will regularly review and asses revisions from the manufactures/Type Certificate Holders Instructions for Continued Airworthiness to ensure all requirements are identified and will incorporate such revisions in a timely manner to the maintenance program.

## MEL Deferral Procedures

MEL deferral procedures are specified in the aircraft MEL approved for the aircraft, and are detailed in Section [8.6 MEL](#_bookmark649) of this manual. Flight crews shall ensure that Operations and Maintenance procedures are followed.

# Standard Operating Procedures

## General

A SOP is an orderly plan for accomplishing a particular task and usually involves several steps. Standardization of crew duties is an absolute necessity to ensure the highest degree of safety, reliability, and efficiency. Standardization, however, is not a substitute for sound judgment. Company SOP's within this manual will be distributed to everyone with the Acme Corp Flight department and trained on an annual basis. Failure to apply knowledge of aircraft systems to prevent or minimize injury or damage is as serious as the failure to use standardized procedures. If there is any conflict in guidance with other procedural or regulatory directives, the more restrictive will apply.

These SOPs apply to Acme Corp Flight Department crewmembers. Aircraft specific standard callouts are listed later in chapter [11 GAC Standard Callouts](#_bookmark734).

## PIC’s Authority

*[14 CFR § 91.3]*

The Pilot in Command (PIC) assigned to a flight shall have exclusive and final authority in accordance with 14 CFR § 91.3 as to whether or not the aircraft shall proceed to any destination or undertake any flight. The PIC shall not be overruled by any passenger or executive, nor disciplined for well considered decisions having to do with weather, mechanical condition of the aircraft, or other hazards. He/she should utilize available resources in making decisions related to flight. The other crewmembers should be brought into discussions concerning the operation of the aircraft as it relates to weather, mechanical condition, or other hazards. The PIC has the final authority on decisions relating to the operation of the aircraft.

## Crew Resource Management

Fundamental to safe flight operations is Crew Resource Management (CRM) or the “total crew concept.” Each crewmember is trained to do his/ her job, to demand that other crewmembers do theirs, with each monitoring the other, and to give on demand or solicit assistance as necessary.

It is essential for crewmembers to communicate their intentions with each other. This applies not only to operating the aircraft, but also to nonflight tasks (i.e. communication with the FBO, dispatch, maintenance, passengers, etc.). This will help to eliminate conflicting information and redundancy.

## Transfer of Aircraft Control

If a transfer of aircraft control becomes necessary, the PF will state, “You have control,” and the PM will acknowledge by stating, “I have aircraft.” One crewmember must be responsible and therefore devote his/her attention to aircraft control whenever the aircraft is in motion. Both pilots should never have their attention diverted or be “heads down” at the same time.

## Minimum Aircraft Crew

*[NX6 2.7.1]*

The number of flight crewmembers scheduled for a trip shall not be less than that specified in the AFM. The Director of Aviation will designate a PIC for each flight to be responsible for all aspects of an assigned flight. This individual will be listed first on the Flight Schedule and Trip Sheet. The PIC normally will be assigned this duty for an entire trip, regardless of the number of legs flown. The other flight crewmember will be designated as the Second in Command (SIC) and will perform the duties as assigned by the PIC and in this manual. “Pilot Flying” (PF) and “Pilot Monitoring” (PM) refer at a given time to the individual actually controlling the aircraft and the individual not controlling the aircraft, respectively.

## Flight Crew Qualifications

*[NX6 2.7.2.1(c)]*

As part of their technical job qualifications, pilots are expected to be knowledgeable of the provisions of the Code of Federal Regulations (CFRs) and the International Civil Aviation Organization (ICAO), as well as the procedures outlined in the Aeronautical Information Manual (AIM).

Each crewmember is responsible to ensure that required licenses, certificates, and ratings are in force before acting as crew on Acme Corp Flight Department aircraft. Any suspected or known medical condition that might affect an assignment is to be brought to the attention of the Director of Aviation immediately.

Flight crewmembers shall meet the training and competency requirements specified in the training chapter prior to acting as flight crew for Acme Corp Flight Department.

## Required Documents and Equipment

Crewmembers are required to report to work with:

1. Pilot certificate
2. Medical certificate
3. Passport
4. Hanscom Field MASSPORT ID Badge
5. Photo Identification

## Checklists

*[NX6 3.4.2.5 and NX6 3.4.5.1]*

Checklists will be used by Acme Corp Flight Department crewmembers on flights to accomplish normal, abnormal, and emergency operating procedures. The consistent and standardized use of checklists will assist crewmembers in completing their tasks in a safe and efficient manner and will reduce the possibility of missing a required action.

Checklists will be updated to the current aircraft approved checklist and will have a revision number and date to reflect the AFM revision used in the development.

No alternate checklists are currently approved for use.

The PF usually initiates all checklists by requesting them. Checklists are completed using a combination of crew action and auto checking. Generally, the Pilot Monitoring will operate the ECL. Crewmembers will use the challenge and response method where the PM will read the challenge but either the PM or PF will give the appropriate response as required for the particular item. Items that require the PF to perform actions during ground operations that will divert attention should only be performed with the brakes set. Responses must be in accordance with the standard checklist terminology and the PM will ensure the PF understands the response when completed by the PM. Items on any checklist that are automatically checked do not need to be called and do not change aircraft flaps, landing gear, or automatic brake configuration.

If interrupted, the checklist is continued when workload permits. After completion of any checklist the PM reports “XX checklist complete.” This allows the PF to maintain situational awareness and prompts the PF to call for the next checklist, when required. While the PF is responsible for initiating checklists, the PM should prompt the PF when a checklist should be started if, in their opinion, a checklist has been overlooked. This prompting is required for management of crew workload in any situation whether normal operations, training, or check flight.

The engine start checklist will not be initiated until both pilots are seated in the cockpit, and the aircraft will not be moved until the checklist or its equivalent has been completed in its entirety. After landing, no checklist items will be accomplished and the checklist shall not be read until the airplane has cleared the active runway or reached taxi speed and the PF has called for their execution.

PlaneBook/AFM checklists will be used when there is no power on the aircraft.

## Pilot Incapacitation

*[14 CFR § 91.3] [NX6 2.2.5.2]*

A flight will not be commenced if any flight crewmember is incapacitated from performing duties by any cause such as injury, sickness, fatigue, or the effects of any psychoactive substance. Flight crews will use the “two communication” rule as a means of detecting and responding to suspected subtle incapacitation. Any time the PF of the aircraft does not respond appropriately to two communications associated with a significant deviation from a standard operating procedure or a standard flight profile, the PM will announce “I have aircraft” and assume command of the flight.

A flight will not be continued beyond the nearest suitable aerodrome when flight crewmembers’ capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness, or lack of oxygen.

Below 300 ft the flight crew should adopt a one communication rule for no response/deviation.

## Deviation Callouts for Approaches

Acme Corp flight crew will use GAC standard callout procedures as well as Flight Safety GVII guidance.

## Preflight

## Crew Reporting Time

A flight duty period commences when the flight crew reports for a scheduled flight, 60 minutes prior to scheduled takeoff for a domestic flight and 90 minutes prior to scheduled takeoff for an international trip.

The PIC may modify the reporting time but will provide sufficient time to have the aircraft ready to accept passengers at least 30 minutes prior to the scheduled departure time. An aircraft is considered ready when predeparture duties are completed.

## Crew AWARES Briefing

*[NX6 2.1.1.2]*

The timing and nature of the briefing should be determined by the Captain so that the briefing will not affect the flight's timely departure or unduly interrupt preparations for departure.

Before the airplane is boarded, the PIC will brief assigned crewmember. Items discussed in this briefing should include at least the following:

1. **[A]ircraft status:** Release, preflight, discrepancies, MEL, fuel, etc.
2. **[W]eather:** Takeoff, enroute, destination/alternate, SIGMETs, etc.
3. **[A]irport information:** Runway length/status, approach aids, FBO, Risk Assessment, terrain, obstructions, airport layout etc.
4. **[R]oute:** SIDS, STARS, nav facilities, airways, minimum safe altitudes, ATC procedures, etc.
5. **[E]nvironment:** NOTAMs, crew duties, passenger requirements, catering, threat
6. **[S]leep:** Pilots will discuss fatigue concerns to include rest period prior to assigned trip, rest period for extended duty day, WOCL operations and minimum rest after duty

**NOTE:** On subsequent flight legs, if there is no change of crewmembers, subsequent briefings will only include items that have changed since the last briefing.

## Crew Duties

* + - 1. **Pilot In Command**

*[14 CFR § 91.3] [NX6 2.2.5.1 and NX6 3.4.2.3.1]*

The PIC will be designated on the Trip Sheet and is the final authority. He/ she is responsible for the operation, safety, and security of the aircraft and the safety of crewmembers, passengers, and cargo on board.

The other major responsibilities of the PIC are as follows:

1. Compliance with CFRs, foreign counterparts when applicable, and company policies and regulations
2. Safe and orderly conduct of flight
3. Encouraging and using effective CRM in the management of the crew
4. Briefing crewmembers prior to a flight on departure routes, altitudes, obstructions, weather and turbulence, and ATC procedures on normal and emergency communication and special instructions
5. Placing catering orders according to passenger profiles or specific trip request, including crew meals
6. Supervising crewmembers throughout the flight, including flight preparation and completion of flight documentation
7. Training and development of crewmembers in techniques, methods, and day to day activities in accordance with Acme Corp Flight Department Policy and SOP
8. Assuming responsibility for custody of passengers and crewmembers until accepted by the state of entry on international flights
9. Performing passenger safety briefings for unfamiliar passengers
10. Communicating changes in weather and destinations to passengers
11. Ensuring that maintenance service and repairs obtained when an aircraft is not at its home base are coordinated with Maintenance
12. Ensuring that the Director of Maintenance or his/her designee is informed of any aircraft write ups
13. Ensuring required paperwork (including processing of receipts, etc.) is completed properly
14. The FMS and EFBs will be checked to ensure databases are current before the first flight of the day

## Second in Command

*[NX6 3.4.2.3.1]*

The SIC will be designated on the Trip Sheet and is also responsible for the operation, safety, and security of the aircraft and the safety of crewmembers, passengers, and cargo on board. The SIC will be prepared to assume the duties of the PIC should he/she become physically incapacitated and unable to perform those duties. Effective CRM dictates that both pilots be made aware of any actions taken by the other pilot.

Additional SIC responsibilities include:

1. Prepare the aircraft cabin
2. Preflight inspection of cabin safety equipment
3. Perform security check for suspicious items
4. Ensure stock items in sufficient quantities
5. Confirm ice, coffee, and catering are boarded and stowed according to safe food handling standards
6. Chill appropriate beverages
7. Assist passengers with their bags and ensure they have their personal items
8. Cabin cleanup, including dishes and linens
9. Prepare cabin for next flight

## Crew Duties Away From Home Base

1. Coordinate with lead passenger to confirm departure date and time
2. Unload passenger baggage
3. Check aircraft for any articles left behind
4. Install protective covers, if required
5. Monitor refueling
6. Complete paperwork (maintenance and operations)
7. Clean interior
8. Have lavatory serviced, as required
9. Arrange for crew transportation/hotel, if needed
10. Security of aircraft
11. Advise FBO of crew hotel and requirements for departure, and confirm procedures for towing and servicing
12. Remove AED for temperature extremes (hot or cold)
13. Complete any applicable checklists

## Preflight Checks

* + - 1. **Home**

It is the responsibility of the Director of Maintenance to ensure maintenance inspections are completed, as required. The PIC is responsible for ensuring that the aircraft is released for flight by maintenance.

## Preflight Procedures

The Second in Command will complete an initial interior and exterior checklist. The PIC is responsible to ensure that the checklists have been performed. For subsequent legs of a trip on the same day, the PF for the departing leg will conduct an abbreviated walk around check of the aircraft.

## Flight Deck Preflight

All checklists should be completed at least 30 minutes before the scheduled departure time.

## Placards

*[14 CFR § 91.9] [NX6 2.3.1.2]*

Placards, listings, instrument markings, or combinations thereof, containing those operating limitations prescribed by the certificating authority for visual presentation, shall be displayed in the aircraft.

## Fueling Procedures

*[NX6 2.2.3.7.1, NX6 2.2.3.7.2, NX6 3.4.3.8.1 and NX6 3.4.3.8.2]*

It is the responsibility of the PIC to ensure the aircraft is properly fueled and serviced prior to departure. These fueling procedures will be used:

1. The PIC and SIC will jointly calculate the amount of fuel required for the next leg(s) and will inform the fueling agent
2. A fuel sample may be taken, at the discretion of the crewmember, before fueling begins
3. Confirm that the amount pumped corresponds to the amount requested
4. Enforce the no smoking policy and ensure that exits of the aircraft remain unobstructed
5. When refueling with passengers embarking, onboard, or disembarking, two way communication shall be maintained by a suitable means between the ground crew supervising the refueling and the qualified personnel onboard the aircraft
6. Crewmembers shall be ready to initiate and direct an evacuation of the aircraft by the most practical and expeditious means available
7. Proper grounding procedures will be used. At a minimum, there must be a truck to aircraft ground wire attachment
8. Ground power units will not be positioned close to the aircraft or fuel truck, and the APU will not be started or shut down while the aircraft is receiving fuel
9. The amount of fuel added and the cost will be entered into FOS. The fuel receipt will be checked for accuracy and included with trip records
10. Before takeoff the flight crew will note the amount of fuel pumped and compare it with aircraft fuel quantity readings. The aircraft will not depart if the amount indicated is less than the flight plan requirements
11. The aircraft will not be fueled if there is lightning within five miles of the airport

## APU Operation

The Auxiliary Power Unit (APU) may be used, as required for operational requirements, but discretion should be used in the length of time it is used to supply power to the aircraft. Normally, it will not be started more than one hour prior to scheduled departure time.

Although the APU must not be started while the aircraft is receiving fuel, it may continue running if it is already in operation when fueling begins.

A crewmember familiar with APU operations and emergency procedures will remain on the aircraft whenever the APU is running.

## EFB

*[NX6 2.4.17.3] [Amendment 37 Part 2 NX6 2.4.17.3]*

## Introduction

*[Amendment 37 Part 2 NX6 2.4.17.2.2 and NX6 2.4.17.3]*

FAA does not issue specific approvals for the use of EFBs for operational use. The purpose of this section is to provide Acme Corp flight crewmembers with clear policies and procedures for operations using the EFB and the various applications associated with the EFB. Flight crewmembers shall adhere to the recommended practices regarding EFB usage.

## Requirements

*[Amendment 37 Part 2 NX6 2.4.17.3]*

1. Each flight crewmember must have in his/her possession his/her assigned EFB for every flight
2. Each EFB should have a means to charge while enroute
3. Each flight crewmember is responsible for keeping electronic charts updated:
   * It is recommended that updates are checked at least three hours before every flight to allow for adequate time to update
4. It is recommended that the latest approved version of EFB software be loaded on each EFB

## Applications

A required list of applications is maintained by the Chief Pilot. These required applications should be updated and used accordingly.

## General Procedures

*[NX6 2.4.17.1 and NX6 2.4.17.3] [Amendment 37 Part 2 NX6 2.4.17.3]*

The EFB shall be secured for takeoff and landing.

**NOTE:** EFB must not affect the performance of the aircraft systems, equipment, or the ability to operate the aircraft.

## Enroute Use

**Crew Usage:** Crews should use discretion, based on which pilot is in control of the plane, when using the EFB inflight. Positive transfer of the controls in these instances should be exercised. Only one crewmember at a time may be heads down using a PED or EFB.

## Unauthorized Use

Under no circumstance will any unauthorized person:

1. Change or modify the default settings and/or presentation as established by the system administrator
2. Modify the information contained within any file or database
3. Add or remove any applications or files from the EFB
4. Connect to the Internet, other than as provisioned by the JeppView FliteDeck updating process
5. Remove from the aircraft, other than as provisioned by the JeppView FliteDeck updating process
6. Update JeppView or any other program while under motion, either inflight on the ground

## EFB Failures

*[NX6 2.4.17.2.1(c)] [Amendment 37 Part 2 NX6 2.4.17.3]*

Should one or more EFBs fail during ground or flight operations, continue to the destination using the alternate available EFBs and on board chart information. Prior to the next flight, the crew must ensure that the aircraft has two independent electronic chart systems on board.

Any abnormalities with the EFBs during any phase of flight, preflight and postflight duties, should be submitted into the SMS via the [2.5.3 Hazard](#_bookmark146) [Identification and Tracking Form](#_bookmark146) to the Director of Safety and Chief Pilot for review.

## Flight Clearance

A pilot will request and confirm the flight clearance. The crew will review the clearance and ensure complete understanding.

The PM will program the FMS departure and route of flight. In addition, initial course, heading, and altitude assignments will be entered. The Departure Procedure (DP) and instrument approach plates for the departure airport and takeoff alternate airport will be kept immediately available to the pilots.

The crew will not depart until the flight clearance has been received, reviewed, and is mutually understood.

## Aircraft Critical Surface Contamination

*[14 CFR § 91.527] [NX6 2.2.3.4.5]*

A flight to be planned or expected to operate in suspected or known ground icing conditions shall not take off unless the aircraft has been inspected for icing and, if necessary, has been given appropriate de-icing/anti-icing treatment. Accumulation of ice or other naturally occurring contaminants shall be removed so that the aircraft is kept in an airworthy condition prior to takeoff. Crew will follow aircraft operating manual and Aircraft Flight Manual (AFM) contamination guidance.

## VOR Check

*[14 CFR § 91.171]*

14 CFR § 91.171 requires that each VOR system be checked within the preceding 30 days prior to use under IFR. This check is documented in FOS.

## Passenger and Cabin Safety Procedures

Passengers should be kept advised of the flight’s progress as necessary. Some passengers would rather not be interrupted by a routine (not safety related) announcement, which may be determined by asking the principal passenger if he/she wants flight progress announcements. Information regarding any known or imminent delays should be communicated to at least the principal passenger as time allows.

## Passenger Information Card

*[14 CFR § 91.519] [NX6 2.2.2.3.2 and NX6 3.4.2.9.2]*

A Passenger Information Card shall be available containing, in printed or picture form, information about use of the safety features of the aircraft.

## Aircraft Boarding and Ramp Procedures

Passengers will always be escorted to and from the aircraft by an Acme Corp Flight Department employee at home base or by a crewmember while on the road. Passengers will also be assisted with their luggage prior to and after flights.

1. Passengers may board and deplane through the hangar or lobby. Maintenance or crewmembers have the authority to manage ramp operations, including passenger assistance with bags
2. During inclement weather, passengers may board and deplane in the hangar with APU running outside of the hangar
3. The aircraft should be positioned on the ramp at least thirty minutes prior to departure
4. During special situations, such as aircraft parked at long distances across the ramp, passengers running late, or boarding the aircraft in inclement weather, the passengers and their vehicle may be escorted onto the ramp and directed to their aircraft (as permitted by airport operations)

## Stowage of Hand Luggage and Galley Equipment

*[14 CFR § 91.523] [NX6 2.2.6, and NX6 3.4.6]*

Immediately prior to takeoff and landing, the crew will visually check that galley equipment is securely stowed and the cabin is secure.

In the event of moderate or greater inflight turbulence, the crew will ensure that hand luggage, galley equipment, and other loose articles are securely stowed.

## Firearms

Firearms are not permitted aboard Acme Corp Flight Department aircraft.

## Passenger Safety Briefing

*[14 CFR § 91.107 and 91.519]*

*[NX6 2.2.2.3.1, NX6 2.2.2.3.2, NX6 2.2.2.3.4, NX6* *3.4.2.9.1, NX6 3.4.2.9.2, NX6 3.4.2.9.4, NX6 3.6.2.1(e)]*

In accordance with 14 CFR § 91.519, the PIC shall ensure that passengers are given a safety briefing appropriate to their needs and cover at least the items specified below. Passenger safety briefing events are tracked in FOS.

The standard safety briefing shall be performed for every flight except when:

1. When serving regular/recurring passengers who are familiar with the aircraft, route and have repeated exposure to that type of flight
2. In other operations where the standard passenger briefing is not appropriate as determined by the PIC

When the standard safety briefing is insufficient for a passenger because of physical, sensory, or comprehension limitations or because that passenger is responsible for another person onboard the aircraft, the PIC shall ensure that the passenger is given an individual safety briefing that meets their special needs.

Prior to loading and deplaning passengers, the passengers should be briefed on the safest direction and most hazard-free route for movement to the aircraft and any dangers associated with the aircraft type such as pitot tube locations, propellers, main and tail rotor blades, or engine intakes.

At a minimum, briefings should also address the following topics.

## Prior to Takeoff

PM will cycle the seatbelt sign prior to takeoff.

## Inflight

Seatbelt sign will be turned off passing 10,000 ft or during cruise flight, whichever is lower, conditions permitting.

Seatbelt sign will be turned back on whenever conditions are warranted.

## Prior to Passenger Deplaning

Crew will brief deplaning, the safest direction and most hazard free route for passenger movement away from the aircraft following deplaning, and any associated dangers.

## Passengers Requiring Special Attention

Passengers must be ambulatory or have an attendant present on the flight. Disabled persons, incapacitated persons, or children shall be seated so as to facilitate orderly passenger exit or emergency evacuation via the emergency exit or cabin door.

## Child and Infant Seating

A child who has reached his/her second birthday must occupy a seat with a separate seatbelt and, if installed, shoulder harness properly secured for taxi, takeoff, landing, and whenever the fasten seatbelt sign is illuminated. Children younger than 24 months must be in an aviation approved carseat with appropriate labels that is secured properly into the aircraft seat.

## Freight/Passenger Luggage

*[14 CFR § 91.523] [NX6 2.2.3.1(e), and NX6 3.4.3.1(e)]*

Freight/luggage carried in company aircraft must be distributed, and secured in a baggage compartment, tied down, or otherwise appropriately secured in the cabin in accordance with the CFRs.

## Portable Electronic Devices

*[14 CFR § 91.21]*

No person shall operate a personal radio transmitter, television receiver, cellular phone, or any other electronic device known to emit electromagnetic or radio frequency emissions that could interfere with the aircraft navigation systems during flight.

## Takeoff

## Performance Data

*[14 CFR § 91.7, 91.103 and 91.605]*

*[NX6 2.2.3.1(f), NX6 2.2.3.2, NX6 2.3.1.3, NX6 3.4.3.1(f),* *NX6 3.4.3.2, NX6 3.5.2.4, NX6 3.5.2.5, NX6 3.5.2.7 and NX6 3.5.2.7.1]*

The PIC is responsible for ensuring that aircraft performance parameters are satisfactory for safe operation using AFM data.

## Departing from Uncontrolled Airports

When departing from an uncontrolled airport, broadcast departure intentions before taxiing and before taking the runway. Pilots should comply with the departure procedures for the airport, including noise abatement procedures.

## Runway Incursion Prevention

These procedures help prevent runway incursions:

1. Read back the taxi clearance, including runway hold short instructions
2. Both pilots should agree on the correct taxi clearance
3. If there is any doubt about the aircraft’s specific position or clearance, the crew should hold their position until receiving clarification
4. During taxi, the PF will concentrate primarily on maneuvering the aircraft according to ATC instructions
5. The PM should use the taxi diagram to guide and follow the progress of the aircraft to help the PF proceed via the taxi clearance
6. The pilots shall turn on the strobes and visually and verbally “clear left and right” before entering or crossing any runway
7. The crew is encouraged to make use of progressive taxi instructions
8. The PM should enter any runway updates and changes into the FMS prior to departure

## Cleared to Takeoff

When the tower has cleared the aircraft for takeoff or at an uncontrolled airport when taking the runway for departure, taxi/landing lights must be illuminated.

The PIC will use full runway length unless an intersection takeoff can be made on a suitable section of the runway and runway limitations for takeoff are followed.

## Marginal Conditions

A takeoff shall be delayed when:

1. Thunderstorms are at or adjacent to the airport
2. Hail is observed
3. Moderate or greater wind shear is reported on the runway to 1500 ft AGL in the departure path
4. Wind velocities exceed 50 kts
5. Braking action reported as nil or RCAM 1 or less
6. Crosswind components exceed the demonstrated value in the AFM
7. The PIC determines for any other reason that delay is necessary

## Noise Abatement Procedures

*[14 CFR § 91.703] [NX6 2.3.1.1(c) and NX6 3.4.4.3.2]*

Many airports are governed by federal, state, or local noise regulations. These are not published in any one reference and in many cases are known only locally. In order to avoid violation of these regulations and, more importantly, in keeping with the Acme Corp Flight Department policy of being a good corporate citizen, aircraft will be operated in accordance with Gulfstream Noise Information Manual.

## Takeoff Briefing

A takeoff briefing should be conducted by the crew prior to aircraft movement and normally will begin with a discussion of the threats. The PF will address the threats and cover those items listed as pertinent in the aircraft operations manual, but as a minimum will include the thrust setting, flap setting, V-speeds, abort considerations, continued takeoff considerations, normal departure procedure, and emergency return considerations.

## Abort Procedures

It is Acme Corp Flight Department policy that the PF will not question the abort call of another crewmember, but will immediately reject the takeoff if he/she can safely do so. After the aircraft is safely stopped, the cause for the callout can be discussed. The pilots will follow the abort procedures as called for in the AFM and as pre-briefed by the PF.

## Go/No Go Criteria

A takeoff will be aborted in accordance with the Aircraft Flight Manual (AFM) and operating manual.

## After Takeoff

The PF must devote full attention to flying the aircraft immediately after takeoff. Unless required by a DP, or to comply with noise abatement procedures, turns should be limited until reaching a safe altitude.

## IFR Takeoff Minima

*[Amendment 37 Part 2 NX6 2.2.2.2.5 and NX6 2.2.2.2.6]*

IFR takeoff is prohibited when the reported visibility is less than 2400 RVR or ½ mile unless:

1. Departure runway has high-intensity lighting, whereas, 1200 RVR or

¼ mile is authorized, or

1. Departure runway has high-intensity lighting including centerline lighting; whereas, 600 RVR is authorized, providing the flight crew has received low-visibility takeoff training.

The flight crew shall take reasonable and prudent action/precautions to ensure the runway is clear.

**NOTE:** RVR is governing in lieu of prevailing visibility in determining takeoff visibility minimums for a particular runway.

When no takeoff minima are specified for the departure airport, a Risk Assessment must be performed.

## Enroute

## Enroute Performance

*[NX6 3.5.2.8]*

If critical engine becomes inoperative at any point along the route or planned diversions, the aircraft shall continue the flight to an airport at which a landing can be made without flying below the minimum obstacle clearance altitude at any point.

## Flight Crewmembers at Duty Station

*[14 CFR § 91.105] [NX6 2.2.4.5.1, NX6 2.2.4.5.2, NX6 2.2.4.5.3, NX6*

*2.2.4.5.4 and NX6 3.6.2.1(c)]*

The PIC is responsible for complying with 14 CFR § 91.105, which addresses flight crewmembers at duty station. These procedures apply:

1. A pilot will remain at duty station while inflight, and anytime the engines are operating
2. Both pilots will be at their duty stations during takeoff and climb and from the beginning of descent through landing with seatbelts and shoulder harnesses fastened
3. During cruise, pilots will remain at their duty stations. One pilot may leave his/her station to attend to operational requirements of the aircraft or to satisfy physiological needs
4. Crewmembers will keep their seatbelts fastened when at their stations during cruise

In addition, if for any reason at any time one pilot leaves the controls when operating at flight altitudes above FL350, the remaining pilot at the controls will put on and use an oxygen mask until the other pilot has returned to that crewmember’s station. At altitudes above FL410, one flight crewmember must wear and use an oxygen mask at all times.

## IFR Inflight Weather Requirements

*[NX6 2.2.3.4.2, and NX6 2.2.4.1.1]*

A flight shall not be continued unless the latest available information indicates that conditions at the airport of intended landing or at least one destination alternate will be at or above the airport operating minima at the ETA.

## Weather Considerations

*[14 CFR § 91.183] [NX6 2.2.4.2 and NX6 2.2.4.3]* *[Amendment 38 Part 2*

*NX6 2.2.4.2 and NX6 2.2.4.2.1]*

It is the PIC’s responsibility to circumnavigate dangerous weather conditions. If areas of severe weather encountered enroute cannot be circumnavigated, the PIC will hold until conditions improve or land the aircraft at an alternate destination.

Passengers will be advised to fasten seatbelts prior to anticipated severe weather, and loose objects in the cabin will be stowed.

Whenever a pilot encounters a potentially hazardous meteorological condition or an irregularity in a ground facility or navigation aid inflight, the knowledge of which the pilot considers essential to the safety of other flights, the pilot shall notify an appropriate radio station as soon as practicable.

## Icing and Freezing Precipitation

*[14 CFR § 91.527] [NX6 2.2.3.4.4 and NX6 3.6.4]*

Crewmembers must verify the aircraft is certified and equipped to operate in icing conditions before departure. Continued flight into areas of icing greater than moderate should be avoided. If icing conditions are encountered which have not been reported or forecast, it should be reported to the nearest Flight Service Station or ATC unit. Acme Corp Flight Department will not operate into areas of reported severe icing.

## Sterile Flight Deck

Crewmembers may not engage in, nor may any PIC permit, any activity during a critical phase of flight which could distract any flight crewmember from the performance of his/her duties or which could interfere in any way with the proper conduct of those duties.

For the purposes of this section, critical phases of flight include ground operations involving taxi, takeoff and landing, and other flight operations conducted below 10,000 ft (except cruise flight) after takeoff and before landing. Critical phases also include the last 1000 ft prior to level off during climbs and descents.

## Admission to Flight Deck

During cruise, passengers may be admitted to the flight deck to observe and ask questions.

The jumpseat may be occupied only by a person formally trained by an approved training vendor, the aircraft manufacturer, or by a flight department pilot or mechanic during a ground training event. (The training may not be conducted during flight.)

## No Smoking/Fasten Seatbelt Signs

*[NX6 2.2.2.3.4 and NX6 3.4.2.9.4]*

The no smoking and fasten seatbelt signs will be on whenever the aircraft is in motion on the ground and during takeoff and landing. It is the policy of Acme Corp Flight Department that smoking is never permitted on company aircraft. Therefore, the no smoking sign will remain illuminated for the entire flight.

## Procedures Prior to SAO Airspace Entry

*[NX6 2.5.2.2 and NX6 2.5.2.6]*

Prior to operations in airspace where special requirements exist, such as Performance Based Navigation (PBN) Specifications, High Level Airspace (HLA), Reduced Vertical Separation Minimums (RVSM), Controller Pilot Data Link Communication (CPDLC), or Automatic Dependent Surveillance (ADS) B/C, flight crews will ensure the aircraft and flight department have been properly authorized by the State of Registry and, if required, by the State of Operation prior to operating in such airspace.

## RVSM Inflight Procedures

*[14 CFR § 91.211, 91.180, and 91.706]*

1. Flight crews should comply with aircraft operating restrictions (if required for the specific aircraft group) related to RVSM airworthiness approval
2. At intervals of approximately one hour, crosschecks between all altimeters and the standby altimeter should be made. A minimum of two primary altimeters should agree within 200 ft or a lesser value if specified in the aircraft operating manual. Failure to meet this condition shall require that the altimetry system be reported as unreliable and ATC notified. The difference between all altimeters should be noted for use in contingency situations:
   1. The normal pilot scan of flight deck instruments should suffice for altimeter cross checking on most flights
   2. At least the initial altimeter crosscheck in the vicinity of the point where Class II navigation is begun should be recorded (i.e., on coast out). The readings of all altimeters should be recorded and available for use in contingency situations
   3. Normally, the altimetry system being used to control the aircraft should be selected to provide the input to the altitude reporting transponder that is transmitting information to ATC
   4. If the pilot is notified by ATC of an actual aircraft deviation error that exceeds 300 ft then the pilot should take action to return to the cleared flight level as quickly as possible

## Altitude Awareness

1. Policy
   * The Altitude Alert System (AAS) is an important deterrent against Controlled Flight Into Terrain and incorrect level off height, but only if used within its operating limits in a standardized manner.
2. Procedure
   * The following procedures shall be utilized for setting the system:
3. The Pilot Monitoring (PM) sets the new altitude assigned by ATC as it is read back and, leaving his/her finger on the AAS, states “Flight Level Set” (e.g.: “Flight Level 310 Set”);
4. The Pilot Flying (PF) shall then point to the resulting target altitude indicated on the pilot’s primary flight display and state “Flight Level Set” (e.g.: “Flight Level 310 Set”). By pointing to the target altitude and verbally acknowledging the new altitude setting, the PF is verifying that he/she heard that altitude assignment by ATC and that it was correctly set in the AAS by the PM. The PF will also verbally confirm the guidance panel vertical mode at this time.

## EGPWS/TAWS

*[NX6 2.4.11.1, NX6 2.4.11.4, NX6 2.4.11.5, NX6 2.4.11.6, and NX6 2.4.11.7]*

Flight crews will immediately respond to a EGPWS/TAWS terrain warning when proximity cannot be instantly verified by visual observation. Maximum available thrust will be applied and the aircraft rotated to achieve best angle of climb without delay in accordance with the aircraft manufacturer’s recommended procedures.

EGPWS/TAWS shall provide, at a minimum, warnings of at least these circumstances:

1. Excessive descent rate
2. Excessive terrain closure rate
3. Excessive altitude loss after takeoff or go-around
4. Unsafe terrain clearance while not in landing configuration:
   1. Gear not locked down
   2. Flaps not in a landing position
5. Excessive descent below the instrument glide path

## Cockpit Voice Recorder

*[NX6 2.4.16.2.3] [Amendment 37 Part 2 NX6* *2.4.16.2.3.1]*

The Cockpit Voice Recorder (CVR) shall be operated continuously from the time the electrical power is first applied to the time that the aircraft is shut down and the electrical power is removed. CVRs shall be capable of retaining the information recorded during at least the last two hours of their operation.

No communications may be erased from the CVR from the time that the electrical power is applied for the purpose of flight.

The CVR is a tool used exclusively for the purpose of investigating an accident or incident. Any information gathered from the CVR is to be used only for that purpose and will not be released to anyone not involved in such investigations. Follow AFM procedures for disabling the CVR following an incident to preserve the data.

## Flight Data Recorder

*[14 CFR § 91.609] [NX6 2.4.16.1.3]*

The Flight Data Recorder (FDR) shall be operated continuously from the time the electrical power is first applied to the time that the aircraft is shut down and the electrical power is removed. FDRs shall be capable of retaining the information recorded during at least the last 25 hours of operation.

The FDR is a tool used exclusively for the purpose of investigating an accident or incident. Any information gathered from the FDR is to be used only for that purpose and will not be released to anyone not involved in such investigations. Follow AFM procedures for disabling the FDR following an incident to preserve the data.

## Traffic Collision Avoidance System

Upon receiving a Traffic Advisory (TA), both pilots must clear for the potential threat. The PF must be ready to immediately disconnect the autopilot and assume control of the aircraft to comply with a Resolution Advisory (RA).

Compliance with Resolution Advisories is mandatory unless there is clear evidence that in complying, the aircraft will be placed in collision with the ground or another object. Upon receiving an RA, the PF must disconnect the autopilot and smoothly fly the aircraft into the required climb or descent. The PM must immediately notify ATC of TCAS RA (i.e., TCAS climb or TCAS descend).

## Flights Over Water

*[14 CFR § 91.509] [NX6 2.4.4.3.1, NX6 2.4.4.3.2, NX6 3.6.3.4.1 and NX6*

*3.6.3.4.2]*

For extended flights over water more than 50 nautical miles from the nearest shore (beyond gliding distance from the nearest shore) aircraft shall be equipped with a life jacket or flotation device for each occupant.

For flights, more than 30 minutes flying time over water or 100 nautical miles from the nearest shore, aircraft must be equipped with:

1. A life jacket equipped with a survivor locator light for each occupant of the aircraft
2. Enough life rafts, each having a survivor locator light, a pyrotechnic signaling device, and a survival kit, to accommodate occupants of the aircraft
3. A buoyant, water resistant signaling device
4. Radio communications equipment able to transmit to and receive from a surface facility, including:
   1. Two transmitters
   2. Two microphones
   3. Two headsets or one headset and one speaker
   4. Two receivers
   5. Two independent radio navigation units

PIC of an aircraft operated on an extended flight over water shall determine the risks to survival of the occupants of the aircraft in the event of a ditching.

The PIC shall take into account the operating environment and conditions such as, but not limited to, sea state and sea and air temperatures, the distance from land suitable for making an emergency landing, and the availability of search and rescue facilities.

## Flights Over Remote Land

*[NX6 2.4.5]*

For flights across land areas designated by a state as difficult for search and rescue, aircraft must be equipped with:

1. Signaling devices
2. Lifesaving equipment (including means of sustaining life) as may be appropriate to the area overflown

## Microphones

*[NX6 2.4.14 and NX6 3.6.11]*

All flight crewmembers required to be on flight deck duty shall communicate through boom microphones below the transition level/altitude.

## Approach and Landing

## Instrument Approach Procedures

*[14 CFR § 91.175] [NX6 2.2.4.10.2]*

When an instrument letdown to an airport is necessary, crew members will use a standard instrument approach procedure described in the appropriate company approach plates. The authorized Decision Altitude (DA) or Minimum Descent Altitude (MDA) is the highest of the following:

1. The DA or MDA prescribed by the approach procedure
2. The DA or MDA for which the aircraft is equipped

## Landing Performance

*[NX6 3.5.2.9]*

After clearing all obstacles in the approach path by a safe margin at the airport of intended landing, or at any alternate airport, the aircraft shall be able to land with assurance that it can come to a stop within the available landing distance.

## Approach Briefing

The briefing should be completed before the aircraft enters the high density traffic area or begins maneuvering for the approach.

## IFR Approach Briefing

Both pilots will discuss the anticipated threats for the approach and landing and will agree on a planned approach. The PM will then program the avionics for the approach. Both pilots will at this point review the approach and ensure their avionics are appropriately set.

The crew will then review the FMS programming, any required navigation aids, aircraft configuration, minimums, automation, missed approach procedure, landing rollout procedures, and any other pertinent points.

## Circling Approach Briefing

In addition to the items included in the IFR approach briefing described above, these subjects will be briefed and discussed for circling approaches:

1. Approach category: Use Category D minimums
2. Entry, direction, and pattern of the circling maneuver
3. Aircraft configuration during the circling approach
4. Speeds to be flown
5. Missed approach procedure, if instrument conditions are encountered during the circle

**NOTE:** Special attention will be given to terrain and obstruction clearance altitudes, as shown on approach charts.

## VFR Approach Briefing

A VFR arrival approach briefing will include setting up the best available navigation for lateral and vertical guidance. If an instrument approach is used as a backup, it will be briefed if needed as an instrument approach.

## In Range Check

Crewmembers will contact the destination facility with arrival time, baggage assistance required, and ground transportation requests.

## Stabilized Approach

*[Amendment 38 Part 2 NX6 2.2.4.4, Amendment 38 Part 3 NX6 3.4.4.5]*

A stabilized approach is one of the most critical elements of a safe approach and landing operation. An approach is considered stabilized when these conditions are met:

1. The landing gear is down, landing flaps set, trim set
2. The aircraft is established on the inbound course and only small changes in heading are required to maintain the correct path and within one dot of course centerline when utilizing instrument guidance
3. The aircraft is established on glideslope and only small changes in pitch are required to maintain the correct glide path and within one dot of glideslope when utilizing instrument guidance
4. The descent rate is not greater than 1000 fpm. Approaches that would require a descent rate greater than 1000 fpm require a special briefing
5. Indicated airspeed is between approach speed and approach speed

+10, or acceptable ranges specified in the AFM or OM, as applicable

1. The engine speed is at a setting that allows adequate response when and if a rapid power increase is needed

An approach that becomes destabilized below stabilized approach height requires an immediate go around. Approaches must be stabilized before:

1. 1000 feet AGL during straight in approach
2. 500 feet AGL during a turning visual or circling approach
3. 1000 feet above MDA/DA during a straight in instrument approach

## Approach Operating Minima

*[14 CFR § 91.169 and 91.175] [NX6 2.2.4.1.2, NX6* *2.2.4.1.3 and NX6*

*3.4.2.7.1] [Amendment 38 Part 2 NX6 2.2.4.8.1]*

Unless permitted by both the FAA and the State of Operation, the PIC shall ensure that an instrument approach is not continued below 1000 ft above the airport elevation or into the final approach segment unless the reported visibility or controlling RVR is at or above the airport operating minima.

If, after entering the final approach segment or after descending below 1000 ft above the airport elevation, the reported visibility or controlling RVR falls below the specified minimum, the approach may be continued to DA/H or MDA/H. In any case, an aircraft shall not continue its approach to land beyond a point at which the limits of the airport operating minima would be infringed.

## Side Steps and Circling Approaches

Acme Corp Flight Department permits side steps or circling approaches.

## Side Step

A crew may request a side step maneuver to complete the landing phase of an approach on a parallel or conveniently aligned runway. Normally, the request will be made to the tower controller after passing the marker. If approved for the side step, the crossover maneuver must be completed not lower than 500 ft AGL. Similar crew procedures should be used for the side step as those used for the circling approach.

## Circling Approach

The crew will use the following guidance to supplement normal circling approach procedures:

1. Category D circling minimums will be used for Acme Corp Flight Department aircraft
2. Night circling approaches are limited to 1000 ft ceiling and three miles visibility

## Requirements for Landing

*[14 CFR § 91.175]*

Crewmembers may not operate an aircraft at any airport below the authorized MDA or continue an approach below the authorized DA in accordance with 14 CFR § 91.175.

1. Land and Hold Short Operations (LAHSO).
   * LAHSO have been implemented at many airports in the United States. Before accepting a LAHSO, Acme Corp Aviation flight crewmembers must review the instructions in this section.
2. Landing Distance Required.
   * When LAHSO are in effect, the effective runway length is the distance from the threshold to the hold-short point. If that distance is greater than the Landing Field Length distance, the operation is authorized. The landing distance will be the FAA- approved AFM distance plus 1000 feet for the configuration, environment, and the weight actually used for the landing. In no cases shall LAHSO be conducted to a runway distance less than specified for an aircraft type as identified in FAA Order 7110.118, Appendix I.
3. Limitations and Provisions.
4. LAHSO is prohibited on wet runways, when wind shear has been reported within the previous 20 minutes, or when the tailwind component exceeds 3 knots.
5. LAHSO will not be authorized to a runway that does not have visual or electronic vertical guidance.
6. LAHSO weather minima requires a prevailing ceiling of no less than 1500 feet and a visibility of at least 5 statute miles.
7. LAHSO weather minima may be lowered to a ceiling of no less than 1000 feet and a visibility of no less than 3 statute miles where a Precision Approach Path Indicator (PAPI) or Visual Approach Slope Indicator (VASI) is installed and operational.
8. At locations where a rejected landing procedure is published, the ceiling and visibility minima will be established in local flying directives and published.
9. Night LAHSO will be conducted only where proper lighting configuration is installed.
10. Special Procedures.
    * After considering the relative impact of the operation on safety, the PIC has several options. It is necessary to inform ATC of the PIC's decision regarding those options at the earliest possible time. They are:
      1. Accept and comply with the hold-short clearance.
      2. Refuse the clearance and request the full length of the runway.
      3. Request a different runway.
      4. Accept a delay in the approach and landing sequence.

The PIC must recognize that LAHSO do not preclude the requirement for a stabilized approach, including proper airspeed and glide path control.

Runways that do not have touchdown zone markings (visual use runways) require selection of the proper "aim point" on the runway. When a land and hold-short clearance is accepted, it is binding until an amended clearance is issued. When the clearance is accepted, the read back must contain the statement, "Hold short of (point)." The Automatic Terminal Information Service (ATIS) or NOTAMS may contain information regarding LAHSO. The controller, when requested by the PIC, will provide the landing distance available. The PIC should be alert for nonstandard missed approach procedures, a go-around required by the controller, balked landings, and other potential hazards associated with LAHSO.

## Enhanced Vision System/Heads Up Display Operational Procedures

*[14 CFR § 91.175(l) and (m)] [NX6 2.2.2.2.1.1, NX6 2.4.15.1, NX6 2.4.15.2]*

Crew will conduct EVS/HUD approaches in compliance with the current revision of the AFM.

## Missed Approaches

Crew will immediately execute an appropriate missed approach procedure in accordance with 14 CFR § 91.175(c).

## Go Around

Either pilot may command a go around for any reason at any time. The PF needs only to call, “Going Around,” and do so. When the PM calls “Go Around,” the PF must immediately execute the briefed missed approach procedure.

## Arrival

Upon arrival at the destination, the crew will plan a priority on the passenger’s needs. Transportation will be coordinated with the FBO prior to arrival, and every effort must be made to conveniently and expeditiously get the passengers on their way.

## FOS Entry Procedures

The PIC is responsible for completing the FOS entry. A complete record of maintenance actions and invoices (fuel and services) will be returned to the Flight Coordinator following the completion of each trip.

## Recording of Aircraft Discrepancies

*[NX6 3.4.5.3]*

All defects shall be recorded by the PIC in ARINC FOS/Aircraft Info (CASS) at the termination of the flight during which they were detected. The PIC will contact the maintenance department to determine the maintenance services required and/or deferral of defective item to the MELs.

## Maintenance Away from Home Base

When maintenance is conducted away from home base, the PIC will contact the Acme Corp, LLC maintenance department to verify the outside agency's qualifications.

Maintenance or inspections conducted by outside agencies or licensed technicians must be properly documented.

The PIC or overseeing technician will collect any additional maintenance documentation, such as work orders, serviceable tags, etc., and provide them to maintenance personnel when they return to the home base.

## Securing the Aircraft

Crewmembers share responsibility for securing the aircraft and contents during layovers and preparing for the next flight.

Parking brakes will be released after the aircraft has been chocked. Engine covers, pitot covers, and gear pins will be installed when conditions require.

Crewmembers should restore the interior to preflight condition before leaving the aircraft.

Doors and access panels will be closed and/or locked before the crew departs the airport. Additional security precautions may be used, as described in the Security section of this manual.

## Disposal of International Garbage

When planning for international operations, the PIC shall ensure that approved international garbage handling facilities are available at the destination airports. If there is doubt regarding the status of ground handling facilities the garbage shall be kept onboard the aircraft in a marked closed container until approved handling facilities are available.

# Emergency Procedures and Equipment

*[NX19 A.1.4]*

## Authority of the PIC

*[14 CFR § 91.3] [NX6 2.1.1.4]*

The Pilot in Command (PIC) will remain in command of the aircraft during and after any emergency until the aircraft has been safely landed or, in the event of a forced landing, he/she has been relieved by appropriate emergency response and/or medical personnel. In emergency situations that require immediate decisions and action, the PIC may follow any course of action that he/she considers necessary. In such instances, he/she may deviate from prescribed operational procedures and methods, weather minimums, and CFRs.

Assisted by the members of the crew, the PIC will:

1. Consider factors that would affect the safety of the people onboard and on the ground
2. Notify appropriate controlling agencies of the situation, location, and intentions
3. After landing, evacuate the aircraft and take immediate actions necessary to prevent additional injury or loss of life
4. Treat injuries and provide for the continued safety and welfare of survivors
5. Establish contact in accordance with the Acme Corp Flight Department Emergency Response Program

In the event the PIC exercises emergency authority, he/she will keep appropriate ATC and other facilities fully informed of the progress of the flight. Each PIC who deviates from a CFR shall, upon the request of the administrator, send a written report of that deviation to the administrator within 48 hours.

## Emergency and Abnormal Procedures

*[NX6 3.9.2]*

An emergency situation will be dealt with on a priority basis and integrated into the flight related duties currently being performed. The priority of action should be based on the seriousness of its effect on the operation of the aircraft and the ability to continue the mission.

## Crew Duties

*[NX6 3.9.2]*

During an abnormal or emergency situation the main priority of the PF is flying and maintaining control of the aircraft. The PM will assist the PF by examining the cause of the abnormality and taking appropriate action, as called for by the flight manual and/or checklist.

If immediate action is not required, the crew should complete any checklist in progress before dealing with the abnormality.

The following items must be considered along with the items called for in the emergency checklist:

1. Maintain control of the aircraft
2. Silence aural warnings
3. Identify and confirm the emergency among crewmembers
4. Confirm that memory items were accomplished and complete the checklist. Address notes, cautions, and warnings

## Use of Checklists

*[NX6 3.4.2.5]*

The aircraft checklist will be used to the maximum extent possible during phases of an emergency situation. Crewmembers must commit immediate action items to memory and be able to perform initial actions without hesitation.

## Guarding Critical Systems

The PF will guard critical operating systems to ensure they are not inadvertently shut down or disabled. These include:

1. Operating engine throttle
2. Operating generator
3. Operating engine fuel supply
4. Any other operating system needed for continued flight of the aircraft

**NOTE:** Both pilots will identify and agree on the movement of any switches or controls of critical systems. The PM will read the challenge item from the checklist, place his/her hand on the appropriate switch or control, and state the response action to be taken. He/she will not move the switch or control until the PF has visually confirmed the selection and verbally agreed with the action to be taken.

## Declaring an Emergency

*[14 CFR § 91.3] [NX6 2.1.1.4]*

Ground stations must be notified immediately of any emergency that requires priority handling or could result in a crash landing or ditching.

1. Set transponder to code 7700
2. Declare an emergency using the most appropriate means (voice or CPDLC) on the assigned air/ground frequency, emergency frequencies (ex. 121.5), and/or the maritime distress frequencies 2182 or 4125 kHZ
3. Be prepared to relate the number of souls onboard, and the fuel remaining in minutes (or hours)
4. Comply with information and clearances received. Accept the communications control offered by the ground radio station, silence interfering stations, and do not shift frequency unless absolutely necessary or instructed to do so. Keep the controller informed of the current status of the situation

## Emergency Landing or Ditching

Prior preparation and crew coordination are critical to an emergency landing.

## Unplanned Emergency Landing

An unplanned emergency is defined as one without time for crewmember or passenger briefings or cabin preparation. They can be on land or in water. Be prepared. If possible, the flight crew will announce “**BRACE, BRACE, BRACE**!” prior to impact. Situational awareness, assessment, and quick and effective decision making are the keys to safety and survival.

## Planned Emergency Landing

During an unplanned evacuation the flight crewmembers may only be able to shout instructions or make a PA announcement reminding passengers to stow loose equipment, stow tray tables, tighten seat-belts, brace on signal and evacuation plan.

Information required by the passengers for preparation may be recalled by using the acronym, TESTS:

1. T – Type of emergency
2. E – Exit and Evacuation plans
3. S – Signal for evacuation
4. T – Time to prepare
5. S – Special circumstances

Special circumstances include high aircraft deck angles, jammed doors, darkness, structural damage, rough terrain or water, and disabled or handicapped persons that might inhibit a successful evacuation.

## Passenger Emergency Briefing and Cabin Preparation

*[14 CFR § 91.519]*

*[NX6 2.2.2.3.3, NX6 2.2.2.3.4, NX6 3.4.2.9.3 and NX6 3.4.2.9.4]*

The emergency briefing provided in the event of an emergency, where time and circumstances permit, shall consist of instructions pertaining to:

1. Seatbelts/shoulder harnesses:
   1. Lap belts must be fastened snug around the hips
   2. If carried, child restraint devices should be checked to ensure they are secured to the aircraft seat with a seatbelt and do not restrict access to emergency exits
   3. Seatbelts and, if installed, shoulder harnesses must remain fastened until the aircraft comes to a complete stop
2. Seat backs and tables: Seat backs must be upright and tables must be secured
3. Carry on baggage: Carry on baggage, including handbags or any other items of mass, must be safely stowed in approved locations.

Seat pockets may be used for smaller items

1. Emergency exits:
   1. Advise passengers to review the Passenger Information Card and to pay particular attention to exit locations and operation
   2. Ensure that passengers seated next to emergency exits are willing and able to open that exit. If not, request the assistance of an Able Bodied Person (ABP)
   3. If possible, assign an ABP to assist young or special needs passengers
   4. Advise passengers of the safest direction and least hazardous route to move away from the aircraft once outside
2. Brace position (when to assume, how long to remain). Advise passengers that they must listen for verbal commands:
   1. 500 ft to landing: Upon hearing this call, ensure passengers are in their seats with their seatbelts fastened
   2. 50 ft prior to landing: The command **“BRACE, BRACE, BRACE”** will be given prior to impact/landing, at which time the passengers will assume and maintain the brace position illustrated on the passenger information card until the aircraft has stopped
   3. After impact/landing: If required, when the command

**“EVACUATE, EVACUATE, EVACUATE”** is given the

passengers will be instructed to immediately **“RELEASE SEATBELTS”** and **“GET OUT”** of the aircraft using the nearest useable exit. If an evacuation is not required, the command **“REMAIN SEATED”** will be given by the flight crew

1. Life jackets (if applicable): If an emergency landing is anticipated on water, advise passengers to immediately locate and don life jackets, secure with straps, and to inflate only when outside the aircraft
2. Child restraint system (if applicable): Evacuation procedures for the occupant of a child restraint system are to remove the child, leave the seat

## Crew Communication

After landing (or impact), if it is determined that fire or possibility of fire exists or that remaining with the aircraft would otherwise endanger life or physical well being, an emergency evacuation will be accomplished. After completing the Evacuation Checklist, if the PIC decides that an evacuation is required, he/she will announce, **“EVACUATE, EVACUATE, EVACUATE.”** Upon hearing this call, the PM will first assess the conditions of the evacuation route and then initiate the evacuation of the passengers. If an emergency evacuation is not required, the crew can advise by announcing, **“REMAIN SEATED.”** The PM will instruct the passengers to **“REMAIN SEATED”** and will explain his/her intentions.

## Ditching

* + - 1. **AMVER System**

The crew should be aware of a report known as the Automated Merchant Vessel Report System (AMVER). Every merchant vessel on the North Atlantic has filed a sail plan through (www.amver.com), giving the intended route, speed, etc. If an aircraft is in trouble with a ditching possible, the crew may contact the Coast Guard or ATC and ask for AMVER information. In approximately 10 minutes, the crew will have the name and location of every merchant vessel within 100 miles of the aircraft’s reported position. Oceanic control should report the situation to the Coast Guard. The Coast Guard then initiates the AMVER system. This expedites the diversion of a seagoing vessel to the area.

Once the decision has been made to ditch, the crew should take advantage of assistance provided by a seagoing vessel. Any nearby ship can provide the surface wind, the recommended ditching heading, and the sea condition. The ship also can give radar vectors to a ditching when weather is a factor. Set up a pattern for the ditching in close proximity to the vessel that will standby to pick up passengers and assist in any way.

**NOTE:** HF Frequency 2182 is Guarded by Coastal Rescue Coordination Centers.

## Ditching Heading

The crew must determine the best ditching heading, using information based on weather reports and reading sea conditions. Normally, there is a primary swell and one or more secondary swells, often moving in different directions. During daylight the primary swells can best be observed from an altitude of 10,000 to 12,000 ft. Secondary swells become visible at lower altitudes. At night, the landing lights should be used to illuminate the surface of the sea.

If the surface wind is more than 35 kts, the ditching should be made into the wind, regardless of the direction of the swells. However, a ditching into the upslope of a swell should be avoided. If the surface wind is less than 35 kts, ditch parallel to a major swell.

## Water Landing

If possible, the landing should be accomplished while engine power is available to permit maneuvering to a favorable touchdown area.

Water contact should be made at minimum speed, not less than stick shaker, and at the lowest descent rate possible. The thrust levers will be brought to shutoff upon water contact.

A water landing can result in sudden and violent forces acting on the aircraft, so it is imperative that crewmembers and passengers remain in their seats with seatbelts and shoulder harnesses securely fastened until the aircraft comes to a complete stop.

## Evacuation

A crewmember will give the order to evacuate the airplane when the airplane has come to a complete stop. When the command to evacuate is given, the evacuation must be executed in a prompt, but orderly fashion.

The suitability of an exit must be considered before it is opened. Some considerations include its height above the ground or waterline, and its proximity to any fire. Passengers should be directed to the nearest suitable exit, and urged to move rapidly through it.

## Land Evacuation

After landing, passengers must be instructed to clear the exit area and move without delay to a safe distance from the aircraft to reduce the risks of injury from a fire or explosion. The crew will brief a predetermined rally point.

## Water Evacuation

After ditching, each crewmember will quickly move to the assigned exit to position life rafts and assist in evacuating passengers from the aircraft. Life rafts will not be removed from their stowage areas nor should an exit be opened until the aircraft has come to a complete stop.

After the aircraft has come to a complete stop, the over wing emergency exit must be opened and the lifeline attached with one end to the inside and the other end to the wing. Passengers must inflate life jackets after exiting the aircraft. The life raft should be removed from its stowage area, the retaining lanyard secured to the lifeline, the raft lifted through the exit, and inflated.

The raft should be boarded initially by two able bodied passengers to assist the others during boarding.

**Go to Transmittal**

The first person aboard the raft should ensure raft inflation and, to the extent possible, hold the raft away from damaged aircraft structures. The second person onboard will assist other passengers in boarding.

Depending on the seas and extent of injuries, people may be transferred directly from the aircraft into the life raft. Persons on the wing should hold on to the wing lifeline. Those in the water should hold on to a life raft heaving line to avoid drifting or being washed away.

Persons entering the raft will be instructed to sit with their backs against the rail and their feet toward the center. No one should be allowed to stand.

Sharp objects, including shoes that can damage the raft should be removed. Persons should move on hands and knees and unnecessary movement should be restricted.

When everyone is aboard the raft, the lanyard may be cut and the sea anchor deployed immediately. Rafts should remain as close as possible to the floating aircraft, because the aircraft would be easier for search and rescue teams to find. Life rafts should not be tied together, unless the seas are very calm. Loose equipment should be secured when not in use so that it is not washed overboard.

## Inflight Passenger Illness

Crew will utilize Medlink and Tempus unit services as needed. If the PIC determines that a passenger needs immediate medical assistance, he/she will divert the aircraft to the closest suitable airport. Suitability of an airport, military, or civilian, will depend on the nature of the illness and the medical support available.

An emergency may be declared if the PIC believes that the situation demands priority handling.

If a passenger is removed from a company aircraft for medical reasons, a crewmember or other company employee should accompany the passenger to the hospital. The Director of Aviation should be notified as soon as possible.

## Survival and Survival Equipment

*[NX6 3.6.2.1(a)(b)]*

When passengers have been evacuated and are safely away from the aircraft, a member of the flight crew may be assigned to remove any emergency equipment or personal items that would be of use in a survival situation. Such items include, but are not limited to, fire extinguishers, flashlights, crash axe, portable oxygen bottles, first aid kits, blankets, clothing, food, and water.

## Survival Kits

*[NX6 2.8.3 and NX6 3.6.2.1]*

Life rafts should be removed from the aircraft (if possible) in any survival situation to enable the crew and passengers to access the survival kits. Lists containing information on the emergency and survival equipment carried on board the aircraft must be readily available for immediate communication to rescue coordination centers. The information shall include, as applicable, the number, color, and type of life rafts and pyrotechnics, details of emergency medical supplies, water supplies, and the type and frequencies of the emergency portable radio equipment.

This equipment is included in Acme Corp Flight Department survival kits:

|  |  |  |
| --- | --- | --- |
| Flashlight | Mooring Line | Radar Reflector |
| Signal Mirror | Sea Anchor | Sponge |
| Whistle | Bailing Bucket | Fishing Kit |
| Dye marker | Hook Type Knife | First Aid Kit |
| Canopy and Mast | Rations Kit | Repair Kit |
| Utility Knife | Compass | Heaving Ring |
| Manual Inflation Pump | Survival Manual | Flare Kit |
| Locator Light | Water Bag/Cup |  |

## Survival Crew Duties

The primary responsibility of the PIC and members of the crew is the welfare of the passengers and each other. When rescue assistance arrives, the PIC will ensure the orderly transfer of responsibility for the passengers and crewmembers to competent authority.

## First Aid Kits

First aid kits are specially designed for the environment in which they will be deployed. First aid procedures must meet applicable regulations.

## Advanced Aviation Medical Kit

The Advanced Aviation Medical Kit (AAMK) contains advanced medical equipment and medication to be used by and released to medically qualified individuals who are trained in the use of the equipment and medication per Medlink guidance.

## Reporting Aircraft Overdue

## 30 Minutes After ETA

30 minutes after the ETA, the Flight Coordinator will:

1. Review the Trip Sheet
2. Begin a communications search
3. Contact the Director of Aviation and the Director of Maintenance, and have the Trip Sheet available
4. If the Director of Maintenance is unavailable, contact a designated pilot
5. Notify appropriate authorities of search and rescue needs and refer to Emergency Response Plan

## 60 Minutes After ETA

60 minutes after the ETA, the Flight Coordinator will:

1. Contact the ATC Unit
2. Continue the communications search
3. Carry out any other duties determined by the company

## Emergency Response Plan

*[14 CFR § 91.3] [NX6 2.2.5.3 and NX6 3.4.5.2] [14 CFR* *§ 91.3] [NX6*

*2.1.1.4]*

The Acme Corp Flight Department Emergency Response Program shall be carried out in the event of an accident, incident, or act of terrorism involving company aircraft or passengers.

In the event of any accident involving an Acme Corp Flight Department aircraft, the PIC or the senior crewmember that is not incapacitated will direct the following procedures, to the extent possible, and notify the nearest appropriate authority by the quickest available means.

Able bodied crewmembers or passengers should be asked to assist. Follow all procedures noted in company ERP.

# Training

*[NX6 3.4.2.4 and NX6 3.9.3.1]*

Acme Corp Flight Department employees are expected to maintain the highest level of professionalism. This includes an expectation of self study to remain information current in the aviation industry. Areas of self study include, but are not limited to, advancements in technology, regulatory changes, worldwide ATC procedures, and changes and updates to aircraft operating procedures, including auto flight and other automated systems. Crewmembers also are expected to maintain the highest skill levels in basic flying technique with use of auto flight or other automated systems. Crewmembers are challenged to be the most proficient and professional in the world.

In support of this philosophy, Acme Corp Flight Department training is challenging and thorough. Crewmembers are expected to maintain the highest level of proficiency.

**NOTE:** Acme Corp Flight Department prohibits simulated emergency or abnormal situations with passengers onboard the aircraft.

## Flight Crew Currency

*[14 CFR § 61.57(e)(3)(ii)(D)] [NX6 3.9.4.1.1, NX6 3.9.4.2 and NX6 3.9.4.3]*

Acme Corp Flight Department flight crewmembers must hold current license type ratings and medical certificates and must have successfully completed the training programs and competency checks as prescribed in this chapter, including both initial and annual recurrent training.

1. Use of simulator training counts toward the currency requirements as specified in the regulations
2. In order to maintain landing currency, Pilots in Command (PICs) must have accomplished within the preceding 90 days:
   1. Three takeoffs and landings
   2. Three night takeoffs and landings, or have met the requirements of 14 CFR § 61.57 (e)(3)(ii)(D) within the preceding 12 months (to be night current)
3. To maintain instrument currency per 14 CFR § 61.57 (c), PICs must have accomplished within the preceding six months:
   1. Six instrument approaches
   2. A holding pattern
   3. Intercepted and tracked a course

## General Training Program Requirements

Training provided to Acme Corp personnel shall be:

1. Conducted in accordance with the Acme Corp Flight Department training programs
2. Conducted using the manuals, publications, checklists, and other relevant documents used by Acme Corp Flight Department
3. Given on the same type and model aircraft or approved flight simulator of the same type and Flight Deck layout as that used by Acme Corp Flight Department

Aircraft flight training is the responsibility of the Director of Aviation. He/she shall ensure that any person or company designated to conduct aircraft flight or simulator training is competent to do so.

## Initial and Recurrent Flight Crew Training

## Aircraft Type Ground Training

* + - 1. **Initial Training**

*[NX6 2.7.2.2, NX6 3.9.4.1.2, NX6 3.9.3.3 and Appendix C]*

This training is to ensure that each crewmember understands aircraft systems and normal, abnormal, and emergency procedures. Topics shall include:

1. Aircraft systems operations and limitations as contained in the AFMs
2. Operation of the aircraft equipment
3. Differences in equipment, operation, and layout between aircraft of the same type
4. SOP for normal, abnormal, and emergency procedures for the aircraft
5. Aircraft performance and limitations
6. Aircraft MEL
7. Weight and balance system procedures
8. Stabilized approaches and execution of proper go around procedures

## Annual Recurrent Ground Training

*[NX6 3.9.3.3, Appendix C]*

Each flight crewmember will complete the ground training program provided by the contract training school. Flight crewmembers are required to report for recurrent training well prepared for each lesson and:

1. Use proper ATC phraseology
2. Display high levels of knowledge of the aircraft
3. Use excellent aviation resource management
4. Exhibit thorough knowledge of company policies and procedures

## Aircraft Simulator Training

*[NX6 3.9.3.4]*

Acme Corp Flight Department utilizes only approved Level C or D flight simulators for aircraft type flight training. Zero time flight training is permitted in a Level D flight simulator. In order to be permitted zero flight time training in a Level C flight simulator, candidates must have previous experience on a similar aircraft type.

Where the flight simulator differs from the Acme Corp Flight Department aircraft in performance, systems, avionics or flight deck layout and configuration, additional training on these differences will be given.

## Recurrent Simulator Training

All Acme Corp pilots will receive aircraft recurrent training biannually, generally every six months with a one-month grace period. The Director of Aviation may extend the six-month period up to 12 months with no grace period. The recurrent training must be:

1. In the specific type and model of aircraft at least once every two years.
2. In any type and model of aircraft requiring a type rating at least every twelve months.

## Captain Upgrade Training

A First Officer (FO)/Second in Command (SIC) pilot will be recommended for upgrade by the Director of Aviation.

## Objective

The objective of Captain upgrade training is to promote a qualified FO/SIC pilot to Captain/PIC and to satisfy 14 CFR § 61.57 and 61.58 training and checking requirements.

## Prerequisites

Pilots must satisfy the experience requirements of Captain/Pilot in Command (PIC) and hold the appropriate type rating.

## Curriculum – Ground

Pilots will complete self-study of the following topics:

* 1. Use of Checklists/Aircraft Manuals
  2. Performance/Weight & Balance
  3. Flight Planning/Instrument Flight Procedures
  4. Crew Resource Management
  5. Company Operations Manual/SOPs

## Curriculum – Flight

Pilots will fly a line trip with the Director of Aviation with at least one leg as Pilot Flying and one as Pilot Monitoring.

## Completion Standards

Pilots will successfully pass an oral examination on the subjects listed in Curriculum - Ground administered by the Director of Aviation and successfully demonstrate the ability to plan and execute a trip acting as PIC.

## Vendors

Preparation for upgrade from FO/SIC to Captain/PIC will be accomplished by qualified PICs assigned to Acme Corp or an instructor from an FAA approved training vendor.

## Category I

Newly upgraded Captains with more than 100 hours in type while executing the duties as PIC may fly to published Category I minimums.

## International Captain Upgrade Training

1. **Objective**

Domestic captains, having demonstrated competency as international captains, will be upgraded with an endorsement to the designation letter.

## Prerequisites

Pilots must be previously designated Captain/PIC.

## Curriculum – Ground

International Captain candidates will study the International Operations Manual and the applicable appendices of the manual with an already qualified International Captain and complete [International Procedures](#_bookmark552) [Training](#_bookmark552).

## Curriculum – Flight

Domestic Captains should fly at least one trip with a Acme Corp International Captain and be recommended for upgrade as a result.

## Completion Standards

Candidates for upgrade to International Captain will be given an oral examination by the Director of Aviation on a sampling of international flight procedure subjects and then be recommended for upgrade.

## International Procedures Training

1. **Objective**

International procedures training will provide pilots with the necessary knowledge and preparation to conduct safe operations using International Civil Aviation Organization (ICAO) and international aviation procedures. An initial class will provide the basic fundamentals. A recurrent class will briefly cover these fundamentals and highlight recent changes.

## Prerequisites

Pilots must meet the basic FO/SIC criteria in to attend initial International Procedures Training. Pilots must have attended an initial course to attend recurrent.

## Curriculum – Objectives

Training objectives include but are not limited to:

* 1. FAA and ICAO Regulations and Resources
  2. RVSM
  3. Navigation
  4. RNP
  5. Communications and Surveillance
  6. Specific Areas of Operation (North Atlantic, Pacific, etc.)
  7. Contingencies

## Completion Standards

Pilots will attend the course and satisfy curriculum evaluation.

## Vendors

Approved vendors include FSI, Scott International Procedures LLC, Advance Aircrew Training.

## Transportability of Pilot Proficiency Check

*[NX6 3.9.4.4]*

Pilots with a valid pilot proficiency check from an operator or commercial operator that uses a similar training program and proficiency check will be considered to meet Acme Corp Flight Department training and proficiency requirement when they have completed training on:

1. COM
2. Emergency procedures on each type of aircraft the pilot is assigned to fly
3. Pilot ground training on each type of aircraft the pilot is assigned, sufficient to cover the aircraft SOP, equipment differences, and special authorizations

## Emergency Procedures Training

*[Appendix C]*

Emergency procedures training is required for aircraft crewmembers and will include instruction on the location and operation of emergency equipment. During initial training and every 24 months thereafter, aircraft crewmembers should perform the function or action, or obtain a suitable demonstration by other means (i.e., audio-visual) for the following on each type of aircraft:

1. Fire in the air and on the ground
2. Use of fire extinguishers
3. Operation and use of emergency exits
4. Passenger preparation for an emergency landing/ditching
5. Emergency evacuation procedures
6. Donning and inflation of life preservers (when equipped)
7. Removal from stowage, deployment, inflation, and boarding of life rafts (when equipped)
8. Pilot incapacitation
9. Unlawful interference, bomb threat, and other security procedures

## First Aid Training

First aid training for crewmembers will consist of:

1. CPR
2. Automated External Defibrillator (AED) (when equipped)
3. Ear and sinus blocks
4. Seeking medical assistance
5. Treatment of shock
6. Bloodborne pathogens
7. Use of first aid kits onboard Company aircraft
8. Use of the Tempus medical device
9. Integration and utilization of the MedAire/MedLink service

## Cold Weather Operations Training

*[Appendix C]*

## Objective

Cold weather procedures training will be presented prior to each cold weather season to prepare pilots for cold weather operations.

## Prerequisites

None.

## Curriculum – Ground

Cold weather procedures training will be provided prior to winter operations using the following resources:

* 1. Acme Corp SOPs and COM Policy/Procedures
  2. Aircraft GVII-G500 Operating Manual
  3. Ground De-icing/Anti-icing Procedures
  4. FAA Holdover Time Guidelines, published annually

## Curriculum – Flight

Not applicable.

## Completion Standards

Not applicable.

## Vendors

The cold weather procedures class will be administered by a pilot assigned by the Director of Aviation or a Acme Corp approved vendor

## Warm Weather Operations Training

1. **Objective**

Warm weather procedures training will be presented biennially to prepare pilots for warm weather operations.

## Prerequisites

None.

## Curriculum – Ground

Warm weather procedures will be provided prior to summer operations using the following resources:

* 1. Acme Corp SOPs and COM Policy/Procedures
  2. Aircraft GVII-G500 Operating Manual
  3. Contaminated Runway
  4. Severe Weather

## Curriculum – Flight

Not applicable.

## Completion Standards

Not applicable.

## Vendors

The warm weather procedures class will be administered by a pilot assigned by the Director of Aviation or a Acme Corp approved vendor.

## Enhanced Vision System/Heads Up Display

*[NX6 2.4.15.2] [Appendix C]*

After initial training, flight crewmembers will receive recurrent training on EVS/HUD approaches by conducting a minimum of two instrument approaches at each recurrent training cycle. Maximum use of HUD and EVS is required.

## Crew Resource Management

*[Appendix C]*

Acme Corp crewmembers will be trained in Crew Resource Management (CRM). CRM training will generally cover:

1. Communication processes and decision behavior:
   1. Briefings
   2. Inquiry, advocacy, and assertion
   3. Crew self critique
   4. Conflict resolution
   5. Communications and decision making
2. Team building and maintenance:
   1. Leadership, followership, and concern for task
   2. Interpersonal relationships and group climate
   3. Workload management and situational awareness:
      1. Preparation, planning, and vigilance
      2. Workload distribution and distraction avoidance
      3. Individual factors and stress reduction

## Emergency Response Program Training

Annual training and testing of the Emergency Response Program will be conducted to ensure the integrity of program features and readiness of participants. Necessary changes will be made and communicated to employees.

This training will include material such as:

1. Role specific training
2. Likely scenario based training dealing with the aircraft and facility Notes and lessons learned will be distributed to all personnel.

## High Altitude Training

High altitude training (above 10,000 ft ASL) will be provided during initial training to flight crewmembers operating Acme Corp Flight Department aircraft. It will cover the:

1. Physiological phenomena in a low pressure environment, including:
   1. Respiration
   2. Hypoxia
   3. Duration of consciousness at altitude without supplemental oxygen
   4. Gas expansion and gas bubble formation
2. For flight crewmembers of pressurized aircraft, it will cover phenomena associated with rapid or explosive loss of pressurization, including:
   1. Most likely causes
   2. Noise
   3. Cabin temperature change
   4. Cabin fogging
   5. Effects on objects located near the point of fuselage failure
   6. Actions of flight crewmembers immediately following the event and the likely resultant attitude

**NOTE:** The same high altitude training is recommended for all other crewmembers performing duties on aircraft operating above 10,000 ft.

## Aircraft Database Training

During initial and recurrent training of aircraft specifics, employees will review the procedures and guidelines for updating electronic databases such as, but not limited to:

1. Aircraft MFD/PFD system updates
2. EFB charts, documents, Applications, and iOS updates
3. Garmin systems updates

## International Operations Training

*[Appendix C]*

Flight crews engaged in operations in international airspace must be authorized by the Chief Pilot and documented in their training record. The following general training program shall be completed prior to Acme Corp Flight Department authorization of flight crews to operate in international airspace:

1. ICAO operational standards
2. ICAO units of measurement standards
3. Sources and content of international flight publications
4. Itinerary planning
5. Preparation of:
   1. ICAO international flight plans
   2. Navigation logs
6. Route planning within the HLA/RNP airspace where flights are to be conducted
7. Enroute and terminal procedures
8. Long range, air to ground communications procedures
9. Structure of the HLA/RNP use airspace where the flights are to be conducted
10. Air traffic clearances
11. International meteorology to include:
    1. Significant weather charts
    2. Prognostic weather charts
    3. Tropopause prognostic charts
    4. Terminal weather forecasts (TAF)
    5. Aviation routine weather reports (METAR)
12. Specific enroute navigation procedures for each type of navigation equipment required for use in the special use airspace, including abnormal procedures
13. Emergency procedures:
    1. Required emergency equipment
    2. Search and rescue techniques
    3. Navigation equipment failure techniques
    4. Communication equipment failure techniques
    5. Specific contingency procedures within HLA/RNP airspace
14. Specialized training for operations in areas of magnetic unreliability

## EFB Training

*[Appendix C] [Amendment 37 Part 2 NX6 2.4.17.3]*

EFB training is completed during initial company training for all Acme Corp employees.

## HAZMAT/Dangerous Goods Training

*[Appendix C]*

Acme Corp is a “Do Not Carry” operator. Acme Corp crewmembers shall complete HAZMAT/Dangerous Goods training every 24 months via company approved in-house or CBT program.

## MEL Training

Acme Corp crewmembers and Technicians shall complete MEL training every 12 months, which at minimum should include the operation and use of a MEL from a flight crew and Technician perspective.

## General Security Training

Acme Corp employees shall receive General Security Training every 24 months that at a minimum should include information specific to the conduct of Acme Corp operations.

## Fatigue Management Training

*[Appendix C]*

Acme Corp employees shall complete Fatigue Management training every 24 months that at a minimum should include the fundamentals of fatigue, duty time limitation guidelines, and reporting fatigue within the SMS.

## Company COM/SOP Training

This biannual training is required for newly hired persons involved in control of flight operations as appropriate to their assigned duties and new crewmembers. The purpose of this training is to ensure an adequate knowledge of procedures unique to the operations of Acme Corp Flight Department. The training shall include:

1. Company organization and reporting relationships and communication procedures, including duties and responsibilities of crewmembers and the relationship of those duties to other company personnel
2. Standard Operating Procedures (SOP)
3. Use and updates of company checklists
4. Hazard/incident reporting procedures, per the SMS
5. Flight planning and operating procedures
6. Use of COM, including maintenance release procedures and accident and incident reporting procedures
7. Navigation procedures and other specialized operations applicable to the operator
8. Company operational control system

## Local Procedures Training

1. **Objective**

All pilots, including contract pilots, will be given local procedures indoctrination administered by a qualified Acme Corp PIC using the [Aircraft Specific Survey and Emergency Training (ASSET)](#_bookmark612) form. The instruction will emphasize policies and procedures found in this Company Operations Manual.

## Prerequisites

None.

## Curriculum – Ground

Subjects are listed in the [Aircraft Specific Survey and Emergency Training](#_bookmark612) [(ASSET)](#_bookmark612) form. Each pilot must complete one ASSET checklist for each aircraft type flown at least once every 12 months.

## Curriculum – Flight

None.

## Completion Standards

* 1. Pilots will demonstrate adequate knowledge of the items which reference this Company Operations Manual, as evaluated by the PIC administering the ASSET checklist.
  2. The completion of one ASSET checklist is required for each type of aircraft the crewmember will fly. Crewmembers will not receive credit for the completion of annual emergency training requirements until the ASSET checklist is accomplished and recorded. A qualified PIC administering this training also receives credit for the training.
  3. The completed forms are maintained in the crewmember’s training folder maintained by the Director of Aviation.

## Flight Coordinator Training

*[Appendix C]*

Flight Coordinators will be trained to have the competencies appropriate to the level of scheduling performed.

The training can take place with a combination of an internal program, training service provider, NBAA PDP and/or CAM accredited curriculum or international equivalent.

The training program shall include initial and recurrent training appropriate to the operations.

The training program should include subjects such as:

1. Policy and procedures
2. Computer skills and scheduling software application
3. Aircraft performance and weather
4. Fatigue management/Human factors
5. Safety Management Systems
6. Emergency Response
7. Leadership and team work
8. Code of Federal Regulations (CFRs) and International Regulations
9. Interpersonal skills and effective communication
10. CPR and hangar safety

## Maintenance Training Program

*[NX6 2.4.17.2.1(b), NX6 2.4.17.3(e) and Appendix C]*

Due to the complexity of the aircraft, engines, and systems factory training is essential. Initial and recurrent maintenance training requirements will be determined by the Director of Maintenance with the assistance of the Director of Aviation.

Training for each airframe and engine type is required for each Technician. Training includes, but is not limited to:

|  |  |
| --- | --- |
| OEM Airframe | Initial training course Recurrent airframe course Run/taxi  Advanced troubleshooting |
| Engine | Initial line maintenance Recurrent line maintenance |
| Advanced Course | Flight safety master technician FAA inspector authorization (IA)  Maintenance resource management (MRM) Reduced Vertical Separation Minimum (RVSM) |
| Company Course | As required |

Scheduling will be at the discretion of the Director of Maintenance. The Director of Maintenance will keep copies of FAA Technician certificates and training certificates.

## Course Outlines

Course outlines are retained on file in the Director of Maintenance’s office.

## Line Service Technician Training Program

1. **Training**

Training Subjects Include:

* 1. Introduction to line service
  2. Safety
  3. Towing
  4. Customer service
  5. Fire safety
  6. Security

## Approved Vendors

Training will be provided by the Director of Maintenance and/or by vendors approved by the Director of Maintenance.

## Overview of Personnel Training Requirements

*[Appendix C]*

|  |  |  |
| --- | --- | --- |
| **TYPE OF TRAINING** | **APPLICABILITY** | |
| **Initial** | **Recurrent** |
| **Flight Crew** | | |
| General Training | | |
| A/C Surface Contamination | X | 24 |
| Crew Resource Management | X | 24 |
| HAZMAT Dangerous Goods | X | 24 |
| Emergency Procedures | X | 24 |
| High Altitude Training | X | N/A |
| First Aid | X | 24 |
| EFB | X | N/A |
| International Procedures | X | 24 |
| Aircraft Type | X | 12 |
| Aircraft Database | X | 24 |
| MEL Training | X | 24 |
| **Maintenance** | | |
| MEL Training | X | 24 |
| Aircraft Training | X | 12 |
| Aircraft Database | X | 24 |
| **Flight Coordinators** | | |
| Annual Scheduling Training | X | 12 |
| **All Personnel** | | |
| Company COM/SOP | X | 24 |
| ERP | X | 24 |
| SMS | X | 24 |
| Security | X | 24 |
| Fatigue Management | X | 24 |
| **Accountable Executive** | | |
| SMS | X | 24 |

## Pilot Proficiency Certification

*[NX6 3.9.4.2, NX6 3.9.4.3 and NX6 3.9.4.4]*

Acme Corp training will be done on the basis of “training to performance.” This means that the person conducting or providing the training will consider the training complete only when the candidate can effectively perform the tasks that they are being trained to do. Upon completion of the training the person conducting or providing the training will ensure that the training has been recorded in each individual’s training record.

Pilots will complete an exam set by the training school at the end of initial aircraft type ground training. The exam will be reviewed with the candidate to ensure that the correct answers to questions are understood.

## Certification

*[NX6 3.9.4.1.1]*

After completion of initial and recurrent aircraft type flight training, pilots will be certified as proficient at least once every 12 months by one of the following:

1. An instructor/evaluator from a vendor approved or designated by the state civil aviation authority
2. A pilot examiner that holds approval authority from an ICAO contracting state
3. The Director of Aviation

The proficiency certification will be done to the standard specified which must be assessed as satisfactory in order to constitute a completion of training. The Pilot Proficiency Check Form used by the flight training school may be used to record the results of the training to proficiency. The form will then be reviewed and signed by the Director of Aviation and be retained in the individual's training record for a maximum of five years.

## Training and Qualification Records

*[NX6 3.9.3.2]*

Acme Corp Flight Department maintains records for persons receiving training. The records for each person will include:

1. Name, personnel license number, type, and ratings (as applicable)
2. Medical category and expiration date (as applicable)
3. Dates on which any required training, pilot proficiency check, or exams were completed
4. Information relating to failure to successfully complete any required training or pilot proficiency check, or to obtain any required qualification
5. The type of aircraft or flight training equipment used for training, pilot

proficiency check, or required qualification

1. For pilots, the results of the most recent examination completed by each pilot for each type of aircraft for which the pilot has a qualification

Required records will be maintained for a minimum of three years. The results of the most recent written exam completed by each pilot shall also be retained.

## Aircraft Specific Survey and Emergency Training (ASSET)

CƌĞǁŵĞŵďĞƌ͗ ͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺ WŽƐŝƚŝŽŶ͗ **W/>Kd** EǀĂůƵĂƚŽƌ͗ ͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺ DĂƚĞ͗ ͺͺͺͺͺͺͺͺͺͺͺͺͺͺ

**DĞƚŚŽĚ ZĞƋƵŝƌĞĚ͗ K с KƉĞƌĂƚĞĚ ĚƵƌŝŶŐ A^^Ed ƌĞǀŝĞǁ**

**, с ,ĂŶĚůĞĚ ĚƵƌŝŶŐ A^^Ed ƌĞǀŝĞǁ**

**D с DŝƐĐƵƐƐĞĚ ĚƵƌŝŶŐ A^^Ed ƌĞǀŝĞǁ EͬA с EKd AWW>/CAB>E ŽŶ ƚŚŝƐ ĂŝƌĐƌĂĨƚ**

ZĞĨĞƌĞŶĐĞ͗ 's//Ͳ'ϱϬϬ KD ϬϳͲϬϭͲϭϬ EǆƚĞƌŝŽƌ WƌĞĨůŝŐŚƚ /ŶƐƉĞĐƚŝŽŶ ;EǆƉĂŶĚĞĚͿ

**$LUFUDIW ([WHULRU**

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| 0DLQ (QWUDQFH 'RRU (0(') | **2SHUDWH** | ܆ |
| (PHUJHQF\ ([LW(V) & 'RRU(V) | **'** | ܆ |
| %DJJDJH 'RRU | **2SHUDWH** | ܆ |
| :KHHO :HOO 'RRUV | **2SHUDWH** | ܆ |
| 1/\* 7RUTXH /LQN/+DUQHVV | **'** | ܆ |
| 5HIXHOLQJ 3DQHO | **2SHUDWH** | ܆ |
| (;7 3RZHU &RQQHFWLRQV | **'** | ܆ |
| $38 ([KDXVW 'DQJHU =RQH | **'** | ܆ |
| ([WHULRU /LJKWLQJ | **'** | ܆ |
| /DYDWRU\ / 3RWDEOH :DWHU  6HUYLFH 3DQHO(V) | **'** | ܆ |
| %DWWHU\ / \*1' 69& %86 6ZLWFKHV | **2SHUDWH** | ܆ |
| /LIH /LQH & $WWDFK 3RLQW(V) | **'** | ܆ |
| :LQJ :DON $UHDV | **'** | ܆ |
| 7DLO &RPSDUWPHQW | **2SHUDWH** | ܆ |
| ([WHQGHG )ODS +D]DUG | **'** | ܆ |
| \*HDU 'RRU (5) / /DQGLQJ \*HDU  (3) 6DIHW\ 3LQV / ([WHUQDO &RYHUV | **'** | ܆ |

**&DELQ (PHUJHQF\ (TXLSPHQW**

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| (PHUJHQF\ 3URFHGXUHV 0DQXDO(V) | **'** | ܆ |
| 3DVVHQJHU %ULHILQJ &DUG | **+** | ܆ |
| 3DVVHQJHU 5HVWUDLQW 6\VWHPV | **2SHUDWH** | ܆ |
| )LUH ([WLQJXLVKHU(V) | **+** | ܆ |
| 3%((V) / 6PRNH +RRG(V) | **'** | ܆ |
| 3RUWDEOH/)L[HG 2[\JHQ  %RWWOH(V) & 0DVN(V) | **'** | ܆ |
| )LUH %R[ / )LUH %DJ | **'** | ܆ |
| )LUVW $LG .LW(V)/$('/7HPSXV | **'** | ܆ |
| )ODVKOLJKW(V) | **+** | ܆ |
| 3D[ /LIH 9HVWV / 5DIWV (2) /  7HWKHU /LQH / 6XUYLYDO .LWV | **'** | ܆ |

**(QWU\ 'RRU & (PHUJHQF\ ([LWV (,QWHULRU)**

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| 0DLQ (QWUDQFH 'RRU (0(') | **2SHUDWH** | ܆ |
| $FRXVWLFDO 'RRU(V) | **2SHUDWH** | ܆ |
| (PHUJHQF\ ([LW(V) | **'** | ܆ |
| $X[LOLDU\ ([LW(V) | **'** | ܆ |
| /LIH /LQH(V) | **'** | ܆ |
| 76& 5 | **2SHUDWH** | ܆ |

**&RFNSLW (PHUJHQF\ (TXLSPHQW**

|  |  |  |
| --- | --- | --- |
| $)0 / 3ODQH%RRN | **'** | ܆ |
| %DWWHU\ 3RZHU 6ZLWFK(V) | **'** | ܆ |
| (-%DWWV//LJKWLQJ | **'** | ܆ |
| &DELQ (PHUJHQF\ 22 6\VWHP | **'** | ܆ |
| $38 )LUH &RQWURO | **'** | ܆ |
| 5DGLR | **'** | ܆ |
| (/7 | **'** | ܆ |
| )LUH ([WLQJXLVKHU(V) | **'** | ܆ |
| 6PRNH \*RJJOHV //5/-6 | **'** | ܆ |
| (9$6 //5 | **'** | ܆ |
| 6PRNH +RRG //5/-6 | **'** | ܆ |
| &UDVK $[H (1RW LQVWDOOHG) | **1/$** | ܆ |
| )ODVKOLJKWV | **'** | ܆ |
| 3LORW 2[\JHQ 0DVN //5/-6 | **2SHUDWH** | ܆ |
| /LIH 9HVWV //5/-6 | **'** | ܆ |
| +HDULQJ 3URWHFWLRQ | **'** | ܆ |
| -XPS 6HDW 'HSOR\PHQW, 6WRUDJH & 5HVWUDLQW 6\VWHPV | **2SHUDWH** | ܆ |

**1RWHV:**

## ASSET (continued)

**&DELQ 6\VWHPV DQG &RPSRQHQWV**

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| 3DVVHQJHU 6HDWV, 'LYDQ(V) &  %HG(V) | **'** | ܆ |
| 6HDWLQJ &RQILJXUDWLRQ IRU  7DNHRII & /DQGLQJ | **'** | ܆ |
| &DUU\-RQ /XJJDJH (&20 4.10.9) | **'** | ܆ |
| :LQGRZ 6KDGHV / &06 | **'** | ܆ |
| ,QIDQW & &KLOG 6HDWLQJ & 5HVWUDLQW 6\VWHPV | **'** | ܆ |
| 7DEOH 6WRZDJH | **'** | ܆ |
| $XWRPDWHG 3DVVHQJHU  %ULHILQJ | **'** | ܆ |
| &DELQHWU\ (&20 4.1.7) | **'** | ܆ |
| /DYDWRU\ 'RRU(V) & /RFNV | **2SHUDWH** | ܆ |
| /DYDWRU\ 2SHUDWLRQ & 6HUYLFLQJ | **'** | ܆ |
| 6PRNH 'HWHFWRU(V) | **'** | ܆ |
| 6PRNH (YDFXDWLRQ  3URFHGXUHV | **'** | ܆ |
| 1R 6PRNLQJ/6HDW %HOW 6LJQV | **'** | ܆ |
| &DELQ, \*DOOH\ & /DYDWRU\ &RQWUROV / &LUFXLW %UHDNHUV | **'** | ܆ |
| &DELQ &RPSDUWPHQW  'LYLGHU(V) RU 'RRU(V) | **'** | ܆ |
| \*DOOH\ (TXLSPHQW | **'** | ܆ |
| 7UDVK &RQWDLQHU(V) | **'** | ܆ |
| 3RWDEOH :DWHU 6\VWHP  2SHUDWLRQ / 3XUJLQJ / 6HUYLFH | **'** | ܆ |
| 'XFW 7DSH | **'** | ܆ |

**&DELQ (QYLURQPHQW**

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| &DELQ 7HPSHUDWXUH &RQWURO | **'** | ܆ |
| &DELQ 0DQDJHPHQW 6\VWHP | **2SHUDWH** | ܆ |

**3DVVHQJHU $PHQLWLHV**

**&UHZ &RPPXQLFD****WLRQV %ULHILQJ**

|  |  |  |
| --- | --- | --- |
| **&UHZ %ULHILQJ ,WHPV** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| 3UH-'HSDUWXUH ³$:$5(6´  %ULHILQJ (&20 4.10.10) | **'** | ܆ |
| 3DVVHQJHU %ULHILQJ  (&20 4.10.12) | **'** | ܆ |
| 3$/,QWHUFRP ± &DELQ &DOO | **2SHUDWH** | ܆ |
| &RFNSLW/&DELQ &RPPXQLFDWLRQ (&20 5.1.5) | **'** | ܆ |
| 7DNHRII %ULHILQJ  (&20 4.10.15) | **'** | ܆ |
| $SSURDFK %ULHILQJ (&20 4.14.2) | **'** | ܆ |
| ,'($/ %ULHILQJ (&20 4.15.6) | **'** | ܆ |
| &DUULDJH RI +D]DUGRXV  0DWHULDOV. (&20 &KDSWHU 11) | **'** | ܆ |
| %RPE 7KUHDW; +LMDFNLQJ (&20 5.4 - 5.5) | **'** | ܆ |
| (PHUJHQF\ (YDFXDWLRQ (&20 5.1.5) | **'** | ܆ |
| 'LWFKLQJ (&20 5.1.6) | **'** | ܆ |
| $38 - 4XDOLILHG &UHZ (&20 4.10.2 &DXWLRQ) | **'** | ܆ |
| 0HG$LUH / )$&76 / 0HG/LQN | **'** | ܆ |

**)OLJKW &UHZ 6SHFLILF**

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| ()% / L3DG | **2SHUDWH** | ܆ |
| 6FKHGXOLQJ / 'LVSDWFK / )OLJKW  5HFRUGLQJ | **'** | ܆ |
| )OLJKW 2SHUDWLRQV ± &20 &KDSWHU 4 | **'** | ܆ |
| 623 ± &DOO 2XWV (&20 4.16) | **'** | ܆ |

**1RWHV:**

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| )OLJKW 3KRQH / 6$7&20 | **'** | ܆ |
| 9LGHR / '9' | **'** | ܆ |
| :L-)L / ,QWHUQHW / /$1 | **'** | ܆ |
| L3KRQHV / L3DGV / L3RGV | **'** | ܆ |
| +HDGSKRQHV | **'** | ܆ |
| &DELQ &DOO 6\VWHP | **'** | ܆ |
| 3LOORZV, %ODQNHWV, %HGGLQJ | **'** | ܆ |

## ASSET (continued)

**AŝƌĐƌĂĨƚ ^ǇƐƚĞŵƐ Θ CŽŵƉŽŶĞŶƚƐ ^ĞĐƚŝŽŶ**

**6\PPHWU\**

ZĞĨĞƌĞŶĐĞ͗ 's//Ͳ'ϱϬϬ 'ƵůĨƐƚƌĞĂŵ ^ǇŵŵĞƚƌǇ &ůŝŐŚƚ DĞĐŬ

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| 7RXFK 6FUHHQ &RQWUROOHUV (&RYHUV / &OHDQLQJ) | **'** | ܆ |
| $FWLYH &RQWURO 6LGHVWLFN (&RYHUV) | **'** | ܆ |
| +8' ,, / ()96 | **'** | ܆ |
| 6\QWKHWLF 9LVLRQ 6\VWHP (696) | **2SHUDWH** | ܆ |
| 'LVSOD\ 8QLW 0DQDJHPHQW (&20 4.9.13) / 76& 'LVSOD\ 0DQDJHPHQW | **2SHUDWH** | ܆ |
| 7KXQGHUVWRUP $YRLGDQFH / 5DGDU 3URFHGXUHV (&204.4.3) | **2SHUDWH** | ܆ |
| 8VH RI (OHFWURQLF &KHFN /LVW / $)0 | **2SHUDWH** | ܆ |
| 7&$6 / &RFNSLW 'LVSOD\ RI 7UDIILF ,QIRUPDWLRQ (&'7,) (&20 4.13.7) | **2SHUDWH** | ܆ |
| (\*3:6 (&20 4.13.6) | **'** | ܆ |
| 5960 $OWLPHWHU 5HFRUGLQJ 9RWHG 1/2/3/4 | **2SHUDWH** | ܆ |
| 76& \*URXQG 6HUYLFH 3DQHO | **2SHUDWH** | ܆ |

**)OLJKW 0DQDJHPHQW 6\VWHP**

ZĞĨĞƌĞŶĐĞ͗ 's//Ͳ'ϱϬϬ 'ƵůĨƐƚƌĞĂŵ ^ǇŵŵĞƚƌǇ &ůŝŐŚƚ DĞĐŬ

|  |  |  |
| --- | --- | --- |
| **,WHP** | **0HWKRG**  **5HTXLUHG** | **&KHFN** |
| )OLJKW 3ODQ / :D\SRLQW HQWU\ / 6HFRQGDU\ )OLJKW 3ODQ / $OWHUQDWH | **2SHUDWH** | ܆ |
| $PHQG 5RXWH / &RQILUPDWLRQ / $FWLYDWLRQ (&20 4.16.3) | **2SHUDWH** | ܆ |
| 2IIVHW / +ROG (QWU\ / &KDQJH 'HVWLQDWLRQ / 7UDFN 2IIVHW | **2SHUDWH** | ܆ |
| 9LVXDO $SSURDFK (QWU\ | **2SHUDWH** | ܆ |
| &LUFOLQJ $SSURDFK 3HUIRUPDQFH &RQVLGHUDWLRQV | **2SHUDWH** | ܆ |
| $SSURDFK 0LQLPD / 0LQLPXPV / 6HFRQGDU\ 0LQLPXPV | **2SHUDWH** | ܆ |
| 5HPRYLQJ D )DXOW\ 3RVLWLRQ 6HQVRU | **2SHUDWH** | ܆ |

***ASSET TRAINING CERTIFICATION - PILOT***

/ ĐĞƌƚŝĨǇ ƚŚĂƚ / ŚĂǀĞ ĚĞŵŽŶƐƚƌĂƚĞĚ ŬŶŽǁůĞĚŐĞ ŽĨ ĐĂďŝŶ ƐǇƐƚĞŵƐ ĂŶĚ ĐŽŵƉŽŶĞŶƚƐ͕ ĞŵĞƌŐĞŶĐǇ ĞƋƵŝƉŵĞŶƚ ůŽĐĂƚŝŽŶ͕ ŶŽƌŵĂů ŽƉĞƌĂƚŝŶŐ ƉƌŽĐĞĚƵƌĞƐ͕ ĂŶĚ ĞŵĞƌŐĞŶĐǇ ŽƉĞƌĂƚŝŶŐ ƉƌŽĐĞĚƵƌĞƐ ĨŽƌ ƚŚĞ 's//Ͳ'ϱϬϬ ŝŶ ĂĐĐŽƌĚĂŶĐĞ ǁŝƚŚ ĂƉƉůŝĐĂďůĞ ĐŽŵƉĂŶǇ ŽƉĞƌĂƚŝŶŐ ƉƌŽĐĞĚƵƌĞƐ ĂŶĚ ƚŚĞ &ĞĚĞƌĂů AǀŝĂƚŝŽŶ ZĞŐƵůĂƚŝŽŶƐ͘

CƌĞǁŵĞŵďĞƌ͗ ͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺ

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/ ĐĞƌƚŝĨǇ ƚŚĂƚ / ŚĂǀĞ ĞǀĂůƵĂƚĞĚ ƚŚĞ ƉŝůŽƚ ůŝƐƚĞĚ ĂďŽǀĞ ŝŶ ĂĐĐŽƌĚĂŶĐĞ ǁŝƚŚ ƚŚĞ A^^Ed CŚĞĐŬůŝƐƚ ĂŶĚ ĂƉƉůŝĐĂďůĞ ĐŽŵƉĂŶǇ ŽƉĞƌĂƚŝŶŐ ƉƌŽĐĞĚƵƌĞƐ͘ /Ŷ ĂĚĚŝƚŝŽŶ͕ Ă CƌĞǁ CŽŵŵƵŶŝĐĂƚŝŽŶƐ BƌŝĞĨŝŶŐ ǁĂƐ ĐŽŶĚƵĐƚĞĚ͕ ĂƐ ŶĞĐĞƐƐĂƌǇ͘

EǀĂůƵĂƚŽƌ͗ ͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺͺ

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## Crewmember Record of Training/Proficiency Certification Form

|  |  |  |
| --- | --- | --- |
| **1DPH:** | | |
| **3RVLWLRQ: BBBBB 3,& BBBBB ,QWHUQDWLRQDO BBBBB 'RPHVWLF BBBBB 6,& BBBB )OLJKW $WWHQGDQW** | | |
|  | 'DWH | 'XH |
| **$LUPDQ &HUWLILFDWH (3LORWV)** |  | 1/$ |
| **,QLWLDO/7\SH 5DWLQJ (3LORWV)** |  | 1/$ |
| **3LORW 'HVLJQDWLRQ /HWWHU (3LORWV)** |  | 1/$ |
| **5HFXUUHQW 7UDLQLQJ (3LORWV)** *every six months* |  |  |
| **0HGLFDO (3LORWV)** *every six months* |  |  |
| **3DVVSRUWV (3LORWV)** *every ten years* |  |  |
| **5DGLR /LFHQVH (3LORWV)** |  | 1/$ |
| **0DVV3RUW 6,'$ / 6HFXULW\** *badge expiration date / 2 yrs* |  | 1/$ |
| **,QWHUQDWLRQDO 3URFHGXUHV 5HFXUUHQW (3LORWV)** *every 2 years* |  |  |
| **/RFDO 3URFHGXUHV $66(7 (3LORWV)** *yearly* |  |  |
| **&ROG :HDWKHU 3URFHGXUHV (3LORWV)** *yearly* |  |  |
| **:DUP :HDWKHU 3URFHGXUHV (3LORWV)** *yearly* |  |  |
| **'DQJHURXV \*RRGV 3URFHGXUHV (3LORWV)** *2 yrs* |  |  |
| **0LQLPXP (TXLSPHQW /LVW 3URFHGXUHV (3LORWV)** *2 yrs* |  |  |
| **)LUVW $LG 7UDLQLQJ ($OO )OLJKW 'HSDUWPHQW 3HUVRQQHO)** *2 yrs* |  |  |
| **&UHZ 5HVRXUFH 0DQDJHPHQW (3LORWV)** *2 yrs* |  |  |
| **\*HQHUDO (PHUJHQF\ 3URFHGXUHV (3LORWV)** *2 yrs* |  |  |
| **(PHUJHQF\ 5HVSRQVH 3ODQ ($OO )OLJKW 'HSDUWPHQW 3HUVRQQHO)** *2 yrs* |  |  |
| **)DWLJXH 5LVN 0DQDJHPHQW** (**$OO )OLJKW 'HSDUWPHQW 3HUVRQQHO)** *2 yrs* |  | 1/$ |
| **(9$6 7UDLQLQJ (3LORWV) *once*** |  | 1/$ |
| **606 7UDLQLQJ (3LORWV) *2 years*** |  |  |
| **+LJK $OWLWXGH 3K\VLRORJ\ ± ,QLWLDO (3LORWV)** |  | 1/$ |
| **+$=&20 26+$ (3LORWV DQG 0DLQWHQDQFH)** *once* |  | 1/$ |
| **(QKDQFHG 1DYLJDWLRQ (3LORWV) *once*** |  | 1/$ |
| **&HUWLILFDWLRQ DQG 5HYLHZ** | | |
|  | | |
| **6LJQHG:**  **1DPH/7LWOH:** |  | (24 PRQWKV) |

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*[NX6 3.8.3.1]*

# Aircraft Maintenance

## Responsibilities of the Director of Maintenance

*[14 CFR § 91.7] [NX6 2.2.3.1(c), NX6 3.8.1.1, NX6 3.4.3.1(c) and NX6 3.8.3.2]*

The Director of Maintenance is responsible for the planning and control of maintenance, liaison with the FAA on maintenance topics, and liaison with persons or AMOs performing maintenance on Acme Corp aircraft. In addition, he/she shall ensure that all maintenance personnel who perform work on company aircraft have access to up to date technical and regulatory publications necessary to perform their duties. The Director of Maintenance shall remove from service any aircraft that are unsafe or that do not comply with the regulatory requirements of the FAA or the guidelines set forth in this manual. In case of absence, the duties of the Director of Maintenance will reside with the Assistant Director of Maintenance.

## Maintenance Policies and Responsibilities

*[14 CFR § 91.403] [NX6 2.6.1.1, NX6 2.6.1.2, NX6 2.6.1.4, NX6 2.6.3 and*

*NX6 3.8.1.1]*

The primary and direct responsibility of the maintenance department is to maintain company aircraft in an airworthy and dispatchable condition.

Company policy requires that the highest degree of safety standards be met. No aircraft will be returned to service unless the Director of Maintenance is satisfied that the aircraft and its equipment are airworthy.

Information resulting from maintenance and operational experience with respect to continuing airworthiness is transmitted to the FAA, as required.

Repairs, overhauls, and alterations to an aircraft must be made in a safe and efficient manner according to the standards set forth by the manufacturer’s recommendations and/or pertinent CFRs. Inspections, scheduled removal, and overhaul/replacement of life limited parts will be at intervals not exceeding those recommended by the manufacturer or approved by the FAA. Overhaul/replacement of a life limited part or assembly may be extended by written authorization from the manufacturer for a specific component. Acme Corp aircraft shall comply with mandatory S/Bs.

Acme Corp shall not allow any person in its employ and/or contract labor to perform a maintenance repair for which that person does not have the necessary experience or hold the applicable licenses unless that person is under the direct supervision of a licensed airframe and powerplant (A&P) Technician that has performed that particular task previously.

The Director of Maintenance will periodically check aircraft to verify that the aircraft registration and airworthiness certificates are current and correct.

## Maintenance Control Procedures

*[14 CFR § 91.403] [NX6 2.6.3, NX6 3.8.4, NX6 3.11.2.1 and NX6 3.11.2.2]*

The maintenance department shall keep orderly records of all maintenance (except routine tasks) performed on aircraft, engines, appliances, etc. in accordance with appropriate CFRs.

This will enable maintenance staff to provide the following data to the Director of Aviation and to the Director of Maintenance:

1. Current aircraft status
2. Maintenance history
3. Annual budget requirements
4. Aircraft and equipment performance reliability

Records shall be maintained to accurately control the length of service life of major components of both equipment and structures.

These records shall reflect the complete service life of any component that could be interchanged from one aircraft to another, thus shortening the overall aircraft SL.

Aircraft maintenance records shall be completed each time an aircraft component or part thereof is removed or installed. These records shall reflect the history and current disposition of such components and/or parts.

A permanent record file will be maintained for each aircraft until such time that the aircraft is transferred, sold, or retired from service. This record file shall contain airframe log, engine log, 337 forms, ADs compliance form, S/ Bs compliance form, current weight and balance report, and maintenance history report compiled by a CMP.

Any deviations from the procedures in the maintenance control system require a Risk Analysis to be completed.

## Elements of Aircraft Maintenance Activity

## Preflight Inspections

Preflight inspections for Acme Corp aircraft will be performed by Acme Corp flight crew. This preflight inspection procedure shall be performed using the pilot’s operating handbook or the approved AFM. This should be complied with before every flight. When quick turn arounds are executed and aircraft have been under constant view of the Acme Corp flight crew, elements of the above procedure may be modified or eliminated if this procedure is used in an approved Preflight Inspection Checklist.

## Postflight Inspections

Postflight inspections shall use manufacturer’s recommendations. This inspection shall be performed after the last flight of the day by an Technician experienced with the type of aircraft. If flight crews are away from home base, the Acme Corp flight crew must perform the inspection as specified in Acme Corp policies and guidelines. The aircraft should be cleaned, serviced, and flight discrepancies noted in FOS/CMP or appropriate aircraft record. Any aircraft away from home base greater than seven consecutive days shall have a postflight performed.

## Unscheduled Maintenance

Unscheduled maintenance on Acme Corp aircraft resulting from flight activity that generates a discrepancy, including normal wear and tear, shall be performed on aircraft.

## Scheduled Maintenance

Scheduled maintenance shall be performed on Acme Corp aircraft based on flight hours, cycles, landings, or calendar as dictated by the manufacturer or the FAA.

## Aircraft Maintenance Inspections

Company aircraft will be maintained and inspected in accordance with factory approved programs as written by the manufacturer and approved by the FAA.

## Maintenance Inspection Discrepancies

Discrepancies detected during postflight inspections and routine required maintenance inspections will be written up in FOS/CMP. The record will contain the description of the discrepancy, date, and person who entered it. When an item is cleared, an appropriate FAA approved technician will enter the sign off into FOS/CMP. In cases where MEL action is required additional steps will be taken to satisfy MEL requirements, and these actions will be recorded in FOS.

Discrepancies are to be addressed in a timely manner. Notify the Director of Maintenance, Director of Aviation, and crews if any major discrepancies impact the flight schedule.

Prior to the next flight the flight crew will review FOS/CMP for the current aircraft status. During the next flight the flight crew will verify that the discrepancy has been cleared.

## Functional Check Flights

Functional check flights for Acme Corp aircraft require that an aircraft be flown before carrying passengers if it has been repaired or altered in any way that could have changed its flight characteristics or affected its operation inflight. The crew conducting the check flight must sign the appropriate aircraft record indicating that the flight was accomplished.

If a ground test/run can show conclusively the repair or alteration has not changed the flight characteristics or substantially affected the flight operation of the aircraft, then a functional check flight is not required.

## Technical Records

Immediately upon finding a defect in an aircraft, or upon completing any maintenance on an aircraft, the person discovering the defect or performing the maintenance shall enter details of the event in the technical records required by applicable CFRs. If the event occurs between scheduled maintenance checks, the entries shall be made in FOS/CMP. The Director of Maintenance shall ensure that FOS/CMP entries are transcribed to the applicable airframe, engine, or component records. Details of defects found during a scheduled maintenance check, or of maintenance performed during such a check, may be entered directly in the applicable airframe, engine, or component record.

## Maintenance Inspection Records

*[14 CFR § 91.417] [NX6 2.6.2.1 and NX6 2.6.2.2]*

Acme Corp shall ensure that these records are maintained:

1. The total time in service (hours, calendar time, cycles, as appropriate) of the aircraft and life limited components
2. The current status of compliance with applicable mandatory continuing airworthiness information
3. Appropriate details of modifications and repairs
4. The time in service (hours, calendar time, or cycles, as appropriate) since the last overhaul of the aircraft or its components subject to a mandatory overhaul life
5. The current status of the aircraft’s compliance with the maintenance program
6. The detailed maintenance records to show that requirements for the signing of a maintenance release have been met

Records shall be kept for a minimum period of 90 days after the aircraft or piece of equipment has been permanently withdrawn from service and for a minimum period of one year after the signing of the maintenance release.

## MEL

*[CFR § 91.213(a)(2)] [NX6 3.6.1.1]*

Aircraft will have a current MEL onboard. Contents of the MEL include:

1. The appropriate FAA approved MEL
2. The assigned FAA LOA
3. MEL preamble

Equipment installed on the aircraft that is not required and is not listed on the MMEL (other than passenger convenience items such as galley equipment and entertainment devices) must be operational for dispatch. Any equipment not shown on the MEL should be considered operational, as it is part of the original aircraft type certificate.

The FAA LOA and the MEL constitutes a Supplemental Type Certificate for the aircraft and must be carried onboard the aircraft as prescribed in 14 CFR § 91.213 (a)(2).

## MEL Repair Intervals

Users of an MEL approved under 14 CFR Parts 121, 125, 129, and 135 must complete repairs of inoperative systems or components, deferred in accordance with the MEL, at or prior to the repair times established by the letter designators. 14 CFR Part 91 MEL users do not need to comply with the repair categories, but shall comply with any provisions defining a repair interval (flights, flight legs, cycles, hours, etc.)

## Deferred Rectification of Defects

*[NX6 3.4.5.3]*

Discrepancies shall be rectified before further flight of the aircraft, except as provided in this section. Where permitted by applicable FAA regulatory provisions, aircraft having outstanding discrepancies may be operated subject to these procedures:

1. Where an MEL has been approved and the list includes limits on the amount of time equipment may be inoperative, those limits apply
2. Where the MEL does not specify time limits, the aircraft may be operated following discovery of a discrepancy. This provision is conditional to the following procedure:
   1. The pilot reports and coordinates the discrepancy deferral with the Director of Maintenance, who coordinates the authorization of the deferral
   2. If required, he/she will seek advice from a qualified AMO that the discrepancy does not invalidate the aircraft Certificate of Airworthiness
   3. The authorization shall be recorded in the FOS/CMP and original filed in the aircraft record
   4. The FOS/CMP entry shall specify the reason for the deferral and the latest date by which the discrepancy must be corrected, but no longer than at the next scheduled maintenance event
   5. Rectification shall take place as soon as practical following discovery of the discrepancy

## MEL Flight Discrepancies

The procedures for handling flight discrepancies will be as follows:

1. The flight crew will list the discrepancy on FOS/CMP
2. The flight crew will notify maintenance of the discrepancy
   1. If enroute to an airport other than home base, notification will be upon arrival at that destination. The flight crew will place an inoperative placard above the affected unit
   2. If enroute to home base, aircrew will notify maintenance by flight phone or as soon as possible
3. Upon arrival at home base, flight crew and maintenance will debrief
4. Maintenance will take corrective action to clear the discrepancy and return the aircraft to service

If the discrepancy cannot be cleared due to parts availability or scheduling, the aircraft will not be dispatched until approved by the Director of Maintenance.

## Technical Dispatch

Technical dispatch of aircraft shall be by means of FOS/CMP. Immediately following completion of any item of scheduled maintenance specified by a maintenance schedule, AD, or other mandatory requirement, the Director of Maintenance shall review the aircraft technical records to determine the date, air time, or operating cycles when the next scheduled maintenance activity will become due and make an entry to that effect in the log.

Before each flight, the PIC shall examine scheduled maintenance requirement and the current list of outstanding defects in the aircraft FOS/ CMP to decide whether the flight may take place. If in doubt as to the time remaining to complete maintenance tasks or the acceptability of defects, the PIC must contact the Director of Maintenance.

## Airworthiness Directives

*[NX6 2.6.3]*

The Director of Maintenance shall maintain a system to ensure that aircraft are in compliance with applicable ADs and other mandatory maintenance requirements. He/she shall examine aircraft records upon appointment to the position and upon each acquisition of a new aircraft to verify this compliance. The Director of Maintenance shall review new and revised ADs upon receipt to determine if they are applicable. He/she shall enter details of applicable ADs and details of directives pertaining to the aircraft make and model in the appropriate airframe, engine, propeller, or component technical record. The Director of Maintenance shall determine the date, air time, or operating cycles when the actions specified in the directive must be taken. If the required actions are due before the next scheduled maintenance activity, he/she shall make the necessary entries in FOS/CMP in accordance with this chapter.

## Maintenance Arrangements

*[NX6 3.8.3.2]*

Aircraft maintenance shall be performed by the company’s own authorized qualified Technician or AMO. An AMO shall hold proper license, ratings, and scope for the work to be undertaken and authorized in writing in the form of a contract, purchase order, or letter. Each request for maintenance shall specify that the work be performed and certified in accordance with the applicable requirements of the CFRs and in accordance with this document. The Director of Maintenance shall make planned maintenance arrangements.

The Director of Maintenance shall be notified of unplanned maintenance activities as soon as practical. In the case of unplanned maintenance away from home base, the PIC may request a written record of the maintenance.

The selection of any qualified Technician or AMO to perform the maintenance may be coordinated with the PIC, however, he/she should confirm that they hold a certificate/license appropriate to the work to be done and that the specific scope and limitations of the work to be done are covered under the work order. Relevant sections of the appropriate manuals will be supplied to each person who performs or certifies work. If in doubt, they should consult with of the Director of Maintenance.

Projected work is described and specified in the fullest detail possible. Estimates of cost are to be as accurate as possible. Once an estimate for work has been established, a purchase order or agreement between Acme Corp and the AMO shall be drafted. The AMO shall provide a delivery schedule. If the agreed completion date cannot be met, the AMO must immediately notify Acme Corp as soon as possible. Upon completion of the work an entry must be made in the appropriate aircraft records by the AMO reflecting the work that has been done in accordance with applicable requirements of the CFRs.

## Outside Vendor Approval

Out Source Vendors will be vetted before they perform any tasks on company aircraft that they are trained, and follow the appropriate policies and procedures approved the aircraft manufacture program and company requirements.

## Aircraft Defects

Immediately upon finding a defect in an aircraft, or upon completing any maintenance on an aircraft, the person discovering the defect or performing the maintenance shall enter details of the event in the applicable technical records required by applicable aviation regulations.

## Recurring Defect Control

At intervals not to exceed three months, the Director of Maintenance shall review the aircraft technical records to detect any recurring defects. Any defect that has occurred three or more times within the past three months or the past 20 flight segments shall be reported by the Director of Maintenance to the maintenance staff or AMO responsible for maintenance. If a defect that has been reported as a recurring defect occurs again within one month of receiving the report, the Director of Maintenance shall ensure that the corrective action includes a complete investigation of the affected system(s), taking into consideration previous occurrences of the defect and the actions taken to correct them. FOS/CMP entry for rectification of the defect shall indicate that a recurring defect investigation has been carried out.

## Aircraft Weight and Balance Control

The Director of Maintenance shall maintain and retain weight and balance reports and amendments for aircraft. Details of the empty weight and center of gravity of each aircraft shall be kept in the aircraft log and onboard the aircraft. Aircraft will be weighed and/or recalculated, and the new center of gravity calculated and recorded. This information will be provided to the Director of Aviation to be used in the computations necessary for flight planning.

## Preventative Maintenance and Servicing

No Acme Corp employee shall perform any preventative maintenance, aircraft servicing, ground handling, or inspection without first being trained and authorized to do so. All preventative maintenance defined under 14 CFR part 43 and aircraft servicing shall be accomplished in accordance with the methods and the recommendations of the aircraft manufacturer and applicable regulations under 14 CFR part 43. The individual performing the work is responsible for recording the maintenance completed.

No flight crewmember (Pilot) is authorized to perform aircraft maintenance. Any preventative maintenance or servicing performed will only be allowed after the crewmember has received training in that operation.

## FOD

The Director of Maintenance should ensure that general visual inspections of the maintenance hangar floor, work areas, shop areas and ramp are made on a daily basis. The scrubber machine will be used to clean the hangar floor on a regular basis or after maintenance has been completed on an aircraft. All department personnel should watch for loose items and debris on the floors and ramp that could lead to FOD incident.

**NOTE:** FOD prevention is everyone’s job.

## Parts and Material Control

Parts required for elementary work and servicing shall be managed by the Director of Maintenance. Fuels, oils, lubricants, and cleaning materials shall be kept in closed containers, clearly marked with the contents, and handled in accordance with applicable industry recommendations. No fluids shall be dispensed from any unmarked container. 8130s will be kept until the part is installed, then retained with the aircraft logs.

## Spare Parts Inventory

Acme Corp spare parts and equipment should be purchased only from manufacturers, authorized dealers or distributors, or certified repair stations. These items should be tagged to show manufacturer part number, TSN, TSO, SN, expiration date, whether new or repaired, whether removed from service in serviceable condition or not, and the reason for removal,. Any condemned/expired parts should be destroyed so they cannot be used on an aircraft again. Parts being held for instructional purposes should be tagged so they cannot be returned to service.

## Minimum Standards for Equipment

Acme Corp shall follow the minimum performance and quality control standards for materials, parts, or appliances used on Acme Corp aircraft through technical standard orders that have been established by the FAA. This will ensure that the equipment will perform its intended purpose under specified conditions.

Approved flotation gear, safety belts, and anti-collision lights are some items that will require approval. Any equipment not approved by technical standard order should be given careful consideration to equipment manufactured under voluntary minimum standards.

To ensure that quality and legitimate parts are used in all repairs, replacement products and parts must be purchased from sources that can certify the product or part was produced under a technical standard order or parts manufacturer approval issued by the FAA. Pilots, Technicians, operators, manufacturers, and accident investigators should report major aircraft technical malfunctions and defects of parts, materials, or appliances to the local FAA office or on FAA form 8010-4.

## Maintenance Tooling

## Technician Tools

Technicians will utilize company provided tools, for tool control purposes, to perform maintenance on company aircraft. Standard and metric tooling may be necessary depending on the aircraft, engines, etc. Company will provide secure storage for aircraft tools.

## Shop Tools

Acme Corp will provide all necessary shop tools to maintain aircraft. Examples of such tools are measuring devices, torque wrenches, tugs, hydraulic units, etc.

## Tool Calibration

Shop and technician tools used to make airworthiness determinations will be calibrated annually to manufacturer specifications. The Director of Maintenance will maintain calibration records. Any tools that are maintained out of calibration will be marked as being for reference only.

## Tool Control

The Director of Maintenance will use the Gulfstream CMP tool control program, listing all tools and include calibration expiration dates. A SNAP- ON Level 5 ATC Tool Control System will be the source of tools used on the aircraft to ensure tools and equipment are all accounted for at the completion of the work. After maintenance is performed on the aircraft, maintenance personnel will confirm the box indicator show the drawers in white (drawers in yellow indicate tools removed) indicating all tools have been returned.

## Flight Authorization/Maintenance Release

*[14 CFR § 91.405 and 91.407]*

*[NX6 2.6.1.3, NX6 2.6.4.1, NX6 2.6.4.2, NX6 3.8.5.1 and NX6 3.8.5.2]*

An aircraft will not be operated until the Director of Maintenance or the Assistant Director of Maintenance has released the aircraft in writing. A maintenance release shall be completed and signed, as prescribed by the FAA, to certify that the maintenance work performed has been completed satisfactorily and in accordance with data and procedures acceptable to the FAA.

Maintenance release shall contain a certification that includes:

1. Basic details of the maintenance performed
2. The date such maintenance was completed
3. When applicable, the identity of the approved maintenance organization
4. The identity of the authorized person or persons signing the release

The detailed maintenance records to show compliance with all requirements for the signing of a maintenance release are kept for a minimum period of one year after the signing of the maintenance release, or until the work to which it relates is repeated or superseded, whichever is longer.

## Special Flight Authorization

The Director of Maintenance shall be responsible for applications made to the FAA for aircraft special flight authorities and is authorized to make any required declarations for this purpose on behalf of the company.

Essential crew only (no passengers) shall be carried on special flights. The flight shall be conducted in accordance with all conditions specified by the FAA.

## Special Flight Request Procedures

Contact local FAA office where aircraft is located and talk with a maintenance inspector.

The special permit request should include:

1. Make, model, SN, and registration number of the aircraft
2. Departure location
3. Arrival location
4. Reason for special permit request (maintenance, etc.)
5. Date aircraft will depart. The FAA will usually grant a ten day window for the special flight
6. Request IFR flight if practical and needed. Normally the FAA grants a special permit for daylight VFR only
7. Ask for permission for Technician to accompany aircraft if practical. Normally special permits are issued to include only personnel needed to conduct the flight
8. Applicable AD notes must be complied with prior to special flight (unless it must be ferried to comply with an AD note)
9. Aircraft must be inspected by a Technician or repair station prior to the special flight, and a statement must be placed in the Flight Logbook, for example: “This aircraft has been inspected and is safe for special flight from to .” Signed
10. Copy of the special permit must be placed as instructed per the text of the special permit

## Recency of Experience

In order to be eligible to sign a maintenance release, a Technician must have at least six months experience within the previous 24 months in the inspection, servicing, or maintenance of aircraft systems in accordance with the privileges granted by the license held in relation to that maintenance release.

# Security Procedures

*[NX6 3.13.1]*

## Assessing the Threat

*[NX6 2.1.1.4]*

The first step in the development of an effective security program is to assess the threat against the company, its personnel, aircraft, and facilities. Threats may relate to the nature of the company’s business, where that business is conducted, the nationality of the company or of company aircraft, the profile of passengers carried, and the value of goods carried.

Information on the various kinds of threats Acme Corp Flight Department is subject to will come from a variety of sources. The Director of Aviation will maintain an ongoing assessment of threat to security within the area of company operations. This assessment will be developed in consultation with:

1. Company security officials
2. National and local security officials
3. National and local law enforcement officials
4. National and international business aviation associations
5. Local and foreign media reports
6. Company officials posted in foreign locations

## Preventive Measures

Preventive security measures seek to prevent:

1. Unauthorized access to company aircraft and facilities
2. Unauthorized introduction of weapons and explosives onto company aircraft and into company facilities
3. Use of company aircraft to commit other unlawful acts, such as the transport of illicit drugs

Acme Corp Flight Department flight information (i.e., times, dates, destinations, passenger lists, etc.) should be treated as proprietary and shared only with those persons having a reason to know.

## Hangar Security

1. Positive identification should be made of personnel entering the confines of the hangar/ramp areas
2. Visitors should be scheduled as a group, when possible, and escorted by an employee
3. Flight crew should wear their IBAC ID badges while in the hangar facilities
4. The points of entry into the hangar area will remain locked
5. Other entries into the facilities must remain supervised and restricted to Acme Corp Flight Department personnel or guests
6. Only flight operations employees are permitted to access ramp areas by passenger vehicle
7. Acme Corp Flight Department employees may permit access to the shared hangar through the office only for Acme Corp Flight Department passengers or guests

## Aircraft Security

1. Aircraft unattended by Acme Corp Flight Department personnel must have their doors secured and should be parked in areas not conducive to vandalism or sabotage. Additionally, to preclude the possibility of accidental damage by vehicles or taxiing aircraft, company aircraft should be positioned in well lighted areas and/or in areas where they are clearly visible. If local conditions require enhanced security, experienced personnel should be retained
2. Complete interior and exterior inspections should be made prior to each new complete start up cycle of an unattended aircraft
3. Unless hangared in company facilities, when the aircraft doors are open, the aircraft shall not be out of visual range of a company lineman, technician, or crewmember
4. When the aircraft is being serviced, at least one company lineman, technician, or crewmember shall be in the immediate vicinity
5. When operating an aircraft APU, a crewmember or company technician shall be in the aircraft or in the immediate vicinity
6. When airport security is limited suspect, the PIC must ensure the aircraft is airworthy prior to departure. Measures to consider include but are not limited to: locking doors, emergency exits, fueling panels, maintenance access doors, arming security devices, taping cabinets and access panels, and disconnecting batteries and start connectors
7. Any maintenance or line personnel not associated with Acme Corp Flight Department who board the aircraft must be accompanied by a crewmember
8. Crewmembers should monitor fueling. If malicious intent is suspected, crews should determine, either directly from the truck pump or from fuel samples taken by the FBO, that the fuel is pure
9. When operating away from company facilities, the crew should always leave a local contact telephone number with the FBO

## Accepting Material for Transport on Company Aircraft

When Acme Corp Flight Department is requested to accept unaccompanied packages for transport on company aircraft, the following must occur:

1. Acme Corp Flight Department employees should have prior clearance from the Director of Aviation and/or the appropriate executive
2. The Pilot in Command (PIC) must approve loading of the package prior to placing it on the aircraft
3. The identity of the person delivering or picking up the package must be known or verified
4. Any suspicious package should be left undisturbed and the proper authorities notified

## Responsive Measures

*[NX6 2.9.2]*

1. In the case of a hijacking or bomb threats, the PIC will follow the procedures set out in the Emergency Response Program
2. In the case of other unlawful acts, the PIC should contact the responsible law enforcement agencies

## Security Checklists

The PIC must ensure that destination airport(s) and surroundings on a given itinerary do not present a threat to air safety. Corporate security and when flying internationally, local embassies and the state department should be used as valuable resources. If civil or political situations deteriorate while away from home base, the PIC and/or Acme Corp Flight Department will take appropriate action to protect the company’s passengers and aircraft. The table below describes safety actions to be taken for various threat levels. For Orange and Yellow levels, actions for both that level and lower levels should be taken.

|  |  |  |
| --- | --- | --- |
| **Threat** | **A/C Location** | **Actions** |
| **Green (Low)** | Door/access panels emergency exits aircraft perimeter | Locked Secured Marked/Lit |
| **Yellow (Medium)** | Parking | Avoid proximity to public rights of way Non-remote  Well lit |
| Appropriate covers | Installed |
| Physical guarding | Available |
| Preflight | Detailed check of aircraft cavities |
| **Orange (High)** | Risk | Refer to local representative for assessment of business risk of not traveling vs. security risk of traveling |
| Parking | Aircraft hangared if possible Apply security tape to doors/access  panels |
| Armed guarding | Consider |
| Communications | Local representative approved in accordance with local guidelines on the use of force |
| Establish lines of communication between crew and passengers |
| **Red (Severe)** | Travel banned | No approval available |

Acme Corp Flight Department will provide its crews with assessments of the security situation by local specialists in countries where there is a local presence. Whenever possible the aircraft should be hangared for stays in foreign countries. The crew should contact Acme Corp Flight Department for this assistance.

# Dangerous Goods

*[NX6 2.1.2]*

## Definition

Dangerous goods are defined as substances or materials which have been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce and which has been so designated.

Acme Corp Flight Department is not a carrier of dangerous goods, with the exception of certain items listed in [10.2 Exceptions](#_bookmark723). This section is intended as a familiarization of what is considered dangerous goods and the proper markings for shipping them.

## Dangerous Goods Categories

Dangerous goods fall into nine basic categories:

1. Explosives
2. Gases
3. Flammable liquids
4. Flammable solids or substances
5. Oxidizing substances
6. Poisonous and infectious substances
7. Radioactive substances
8. Corrosives
9. Other Regulated Materials (ORMs)

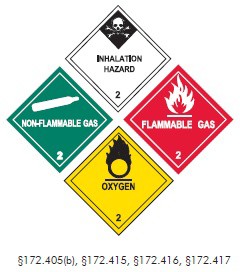
Dangerous Goods warning labels have been developed for each category.

## Class 1 – Explosives

Any chemical compound, mixture, or device that is designed to function by explosion, which is a substantially instantaneous release of gas and heat. Examples: Dynamite, blasting caps, fireworks, paper caps for toy pistols, and percussion caps. The markings for Class 1 materials are as follows:



## Class 2 – Gases

Compressed, liquefied, or dissolved under pressure. Examples: Carbon monoxide, hydrogen, oxygen, chlorine, carbon dioxide, and neon.

## Class 3 – Flammable Liquid

A liquid having a flash point below 100°F. Pyroforic liquid is any liquid that ignites spontaneously in dry or moist air at or below 130°F. Combustible liquid is any liquid having a flash point at or above 100°F and below 200°F. Examples: Kerosene and butane.

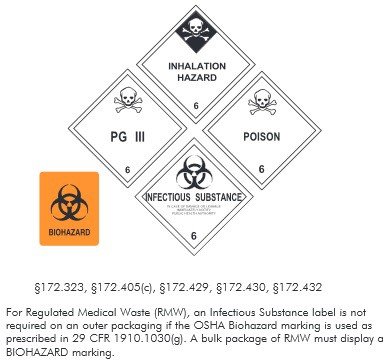
## Class 4 – Flammable Solids or Substances

Any solid material (other than an explosive) that is liable to cause fire through friction, retained heat, manufacturing, or processing. It can be ignited readily and burns so vigorously and persistently, that it creates a serious transportation hazard. Examples: Metallic Sodium and Potassium.

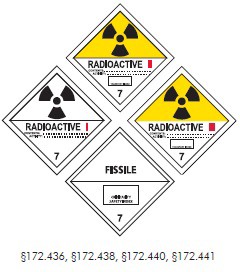
## Class 5 – Oxidizing Substances

Any substance, such as chlorate, inorganic peroxide, or nitrate, that accelerates the combustion of organic matter by readily yielding oxygen. Examples: Hydrogen Peroxide, Chlorine Bleaching Powder, Ammonium Nitrate, Lauroyl Peroxide (bleaching agent), and Succinic Acid Peroxide (antiseptic).

## Class 6 – Poisonous and Infectious Substances

Poisonous Materials are liquids or solids so toxic to humans that they are a hazard to health during transportation. An irritant is a substance that, upon contact with fire or air, gives off dangerous or intense fumes. Etiologic Agents are living microorganisms or their toxin that causes (or may cause) human disease. Examples: Nitric Oxide, Arsenic, Strychnine, and Cyanide irritants (tear gas and chemical mace).

## Class 7 – Radioactive Substances

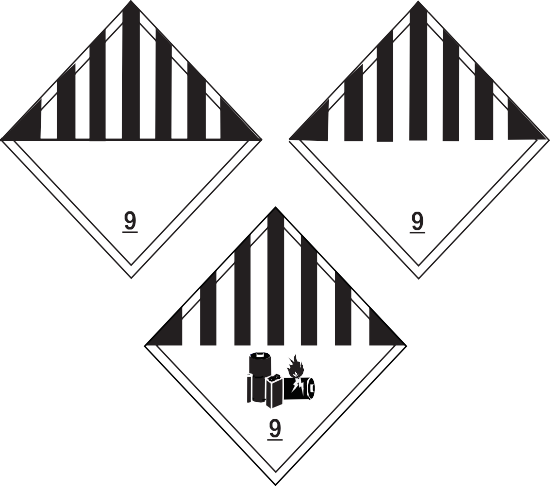
A liquid or solid that spontaneously gives off ionizing radiation.

## Class 8 – Corrosive

Any liquid or solid that causes visible destruction or irreversible damage to human tissue. It may also be a liquid that has a severe corrosion rate on steel or aluminum. Examples: Paint remover, soda lime, and battery acid. Wet spillable batteries when properly packaged would be considered an acceptable item.

## Class 9 – Miscellaneous Dangerous Substances

Any material that may pose an unreasonable risk to health and safety or property when transported in commerce and does not meet any of the definitions of the hazard classes specified previously. Examples: Carbon dioxide solid (dry ice), sodium fluoride, manganese dioxide (matches), and magnetized materials. Dry ice, when properly packaged, in the maximum amount of four lbs. per passenger, is an acceptable item.



**or**

## Exceptions

Any item or package that has a Dangerous Goods label, or is marked ORM, cannot be accepted for transportation, unless the item is listed in the exceptions section. These items commonly carried by passengers are not considered dangerous in small quantities:

1. Personal toilet articles not to exceed 75 ounces per person (example: hairspray, aerosol perfume)
2. Alcoholic beverages
3. Aerosol containers
4. Small arms ammunition in checked luggage
5. Dry ice is categorized as ORM but is not considered hazardous in the above quantity restrictions

Suspicion of any dangerous goods present in authorized areas or shipment of such material must be reported to the PIC immediately.

Acme Corp Flight Department will remind passengers of the Dangerous Goods policy in a note at the bottom of the flight itinerary.

## Dangerous Goods Emergencies

This section provides information on how to respond to an inadvertent spill or release of dangerous goods aboard the aircraft.

## General Procedures

1. Notify the PIC
2. Assess situation (fire is always a concern)
3. Identify the material ASAP
4. Approach the “danger area” cautiously
5. Avoid inhaling vapors and fumes
6. Do not assume gases and vapors are harmless due to lack of odor
7. Do not walk through contaminated area
8. Do not attempt cleanup without the proper equipment

Once risk is determined and the substance is identified, or if unable to accurately identify the material:

## Notify Authorities

1. Director of Aviation
2. Airport manager
3. Public safety personnel (ARRF, law enforcement, etc.)
4. Request assistance

## If No Spill, or No Fire

1. Notify PIC
2. Attempt to identify material
3. Assess risks
4. Call CHEMTREC (if required)

## Land to Remove Danger

* + - 1. **Fire**

1. Extinguish fire
2. Do not use water without identifying substance
3. Notify PIC
4. Utilize respiratory protection (smoke hoods, wet towels, etc.)
5. Move passenger away from area
6. Contain the fire site
7. Attempt to identify the material
8. Emergency landing
9. Notify fire personnel ASAP

## Spillage or Leakage

1. Notify PIC
2. Move PAX away from area
3. Use respiratory protection (smoke hoods, wet towels, etc.)
4. Do not allow contact with any spilled material
5. Do not spray with H2O until material identified
6. Call CHEMTREC (if required)
7. Land to remove hazard

## Other Resources

These agencies are available to answer questions regarding a hazardous material and/or dangerous good incident or accident.:

CHEMTREC (24 hour)

800-262-8200

National Response Center (NRC) 800-424-8802

Center for Disease Control 800-311-3435

Local Department of Emergency Services

# GAC Standard Callouts

## General

Callouts are generally made by the PM but are sometimes required of the PF or the first pilot to become aware of a requirement. Whenever a callout is missed, the other pilot can make the callout or query the responsible pilot with the question, “callout?” Pilots need not make individual callouts which are made by an automated system, such as EGPWS, which makes the specific callout. Where a conflict exists, the AFM/AOM has precedence.

Callouts are listed below.

Callouts shown in “Bold Text.” Actions shown with bullets (•) in plain text.

Indicates callout may be made by either PF or PM.

## Taxi Out

|  |  |  |
| --- | --- | --- |
| **Phase** | **PF** | **PM** |
| Start of Taxi | **“Brakes checked”**   * Brake check immediately after aircraft movement | * On direction of PF   **“Brakes checked”** |
| Clear of Ramp  (Flap Callouts Typical)  (Checklist Callouts Typical) | **“Set Takeoff Flaps, Taxi Checklist”** | **“Selected”**  **“Indicating 20”** (or 10 as req’d)   1. Begins challenge/ response Taxi Checklist 2. Ends with   **“Taxi Checklist Complete”** |
| Crossing Active Runway | **“Clear Left”** | **“Clear Right”**   1. Turns on all available lighting 2. When clear, return lighting to normal taxi state |
| Line Up and Wait (Or Cleared for Takeoff) | **“Takeoff Checklist”**   * Runway alignment check:   **“Cleared on runway two-nine” “I see runway two nine”**   * On alignment confirmation   **“Heading Alignment Checks”** | 1. Pulse light only (LUW Reminder) 2. Cycle Seatbelt Sign 3. Completes Takeoff Check ending with:   **“Departure Runway”**   * + Final item on Takeoff Check   **“Heading Alignment Checks” “Takeoff Checklist Complete”** |

## Takeoff

**Phase PF** **PM**

* Landing Lights ON (CTO

Cleared for Takeoff

60 Knots

80 Knots

V1

VR

Positive Rate of Climb

400’ AAL

**“Check”**

* Confirm airspeed matches

**“Check”**

* Remove hand from power levers

Do not exceed 10 degrees of pitch attitude prior to lift-off. Do not rotate to the pitch target in less than 3 seconds.

**“Positive Rate” “Gear Up”**

**“400 Feet” “Flaps Up”**

**“<Lateral/Vertical Mode>”**

**“Autopilot”** (when desired)

* PF makes GP Selections

Reminder)

**“Takeoff Checklist Complete”**

1. N1 set for takeoff
2. A/T HOLD

**“Power Set”**

**“80 Knots”**

* Maximum Low speed Abort
* Just prior to V1

**“V1”**

**“Rotate”**

**“Positive Rate”**

* Select gear handle UP

**“400 Feet”**

**“Selected”**

* Select Flap Handle to 0 Flaps

**“<Lateral/Vertical Mode>” “Flaps Indicating UP”**

* Continues to make GP mode selections as directed

**“Autopilot ON”**

* Select autopilot ON

**Go to Transmittal**

## Climb/Cruise/Descent

**Phase**

Climbing Through 10,000’

**PF**

**“Climb Checklist”**

* Optional

**PM**

* 1. Initiates Climb Checklist
  2. After Clearing Transition Level

**“Climb Checklist Complete”**

New Altitude Clearance

Approaching Altitude Capture

(1000 To Go)

Altitude Capture

**“I see FL250”**

**“Flight Level Change”**

* Select/point/confirm PFD FLCH or appropriate vertical mode

**“Check, FLCH”**

* Confirm active vertical mode

**“…Climb FL250”**

1. Read back of clearance
2. Sets ASEL to new altitude
3. Maintain point to ASEL until acknowledged by PF

**“5 Climbing 6 Thousand”**

or

**“4 Zero Zero Descending FL390”**

Call made by first pilot is acknowledged by second.

**“Altitude Capture” “Check”**

New Sector Initial Radio Check In Altitude Report Format

**“52 Hundred Climbing 1 Zero Thousand”**

or

**“407 Descending FL350”**

Confirm Route Change Before Activation

**“Activate”**

* Point/Confirm TO waypoint

**“XYZ”**

* Point/Confirm lateral mode
  1. Selects route change
  2. Points to “Activate” if req’d

**“Direct XYZ”**

**“FMS”**

## ILS Approach

**NOTE:** “APPROACH Arm” NOT used for LOC approach with GS out of service AND LNAV/VNAV approach with no charted glide path. Add 50’ to MDA for DDA as necessary.

**Phase**

**PF PM**

**“Flaps 10”**

Initial Approach

Course Movement Course Capture

Glideslope Movement

No Later Than 2 Dots Below Glideslope or 3 NM Prior to FAF

1. Verify ILS/LOC Previewed
2. Verify FMS/Approach Mode
3. Verify Auto/Manual Speed

**“APPROACH Armed”**

**“Localizer Alive” “Localizer Capture”**

**“Glideslope Alive” “Glideslope Capture”**

**“Flaps 20”**

1. Verify Approach Mode Selected
2. Verify Auto Speed Selected

**“Gear Down”**

**“Confirmed Three Green”**

**“Selected” “Indicating 10”**

1. Verify FMS/Approach Mode
2. Verify Auto/Manual Speed

**“Check”**

**“Localizer Alive” “Localizer Capture”**

* Set Heading to Course

**“Glideslope Alive”**

**“Glideslope Capture” “Selected”**

**“Indicating 20”**

* Select Gear Down

**“Selected”**

**“Three Green, Confirm?”**

* Verify Auto Speed Selected

## ILS Approach (continued)

|  |  |  |
| --- | --- | --- |
| **Phase** | **PF** | **PM** |
| 1 Dot Below Glideslope/Prior to FAF | **“Flaps 39 - Landing Checklist”** | **“Selected”**   1. Verify Glideslope Capture, and 2. Verify Crossing FAF at Charted Altitude 3. Verify Missed Appr Altitude 4. Verify Vapp (½Steady+G) ≤ 20 5. Cleared to Land - Landing Lights ON (CTL Reminder) Cycle FSB 6. Complete Landing Check List |
|  |  | **“Landing Check Complete”** |
|  |  | **“On Profile”** |

## RNP LPV or LNAV/VNAV Approach

**Phase**

Initial Approach

Course Movement Course Capture

No Later Than 3 NM Prior to FAF

VGP Movement

**PF**

**“Flaps 10”**

1. Verify LNAV/VNAV Mode
2. Verify Auto/Manual Speed
3. Verify LPV ID
4. Verify LPV ‘Armed’ Display on PFD

**“Course Alive” “Course Capture”**

* When Cleared for Approach, Verify ‘ARM APR’ Displayed When FAF Becomes ‘TO’

**“APPROACH Armed”**

**“Flaps 20”**

1. Verify Approach Mode Selected
2. Verify Auto Speed Selected

**“Gear Down”**

**“Confirmed Three Green”**

**“VGP Alive”**

* Verify VGP or LPV is Active on PFD

**“VGP Captured”**

**PM**

**“Selected” “Indicating 10”**

1. Verify LNAV/Approach Mode
2. Verify Auto/Manual Speed

**“Course Alive” “Course Capture”**

* Set Heading to Course

**“Check”**

**“Selected”**

**“Indicating 20”**

* Select Gear Down

**“Selected”**

**“Three Green, Confirm?”**

Verify Auto Speed

**“VGP Alive”**

* Verify VGP or LPV is Active on PFD

**“VGP Captured”**

**RNP LPV or LNAV/VNAV Approach (continued)**

|  |  |  |
| --- | --- | --- |
| **Phase** | **PF** | **PM** |
| Prior to FAF | **“Flaps 39 – Landing Check”** | **“Selected”**   1. Verify VGP/LPV Capture, and 2. Verify Crossing FAF at Charted Altitude 3. Set Missed Approach Altitude 4. Verify Vapp (½Steady+G) ≤ 20 5. Cleared to Land - Landing Lights ON (CTL Reminder) Cycle FSB 6. Complete Landing Check List   **“Landing Check Complete” “On Profile”** |

## Approach Deviations Standard Callouts

|  |  |  |
| --- | --- | --- |
| **Phase** | **PF** | **PM** |
| ±1 Dot Off Glideslope/Glide Path  ±1 Dot Off Localizer/Course | **“Correcting” “Correcting”** | **“1 Dot High/Low Increasing/ Decreasing”**  **“1 Dot Left/Right Increasing/ Decreasing”** |
| ±10 Knots From Approach Speed | **“Increasing/Decreasing Airspeed” or “Correcting”** | **“Airspeed XX Knots Slow/Fast” or “Airspeed”** |
| Rate of Descent Exceeds 1000 FPM | **“Reducing Sink Rate” or “Correcting”** | **“Sink Rate XXXX Increasing/ Holding”** |
| Exceeding Stabilized Approach Criteria Below 1000’ HAT  Requires Go Around | **“Go Around, Flaps 20”**  TOGA | **“Unstabilized <Parameter> – Go Around”**  Unstabilized Parameters:   1. “**Flight Path**” > 1 Dot 2. “**Bank Angle**” Large Deviation 3. “**Pitch**” Large Deviation 4. “**Speed**” < VREF >   VREF + 20   1. “**Configuration**” 2. “**Power**” |

## Final Approach

Once beyond the FAF and the runway is in sight by both pilots, only the “1000” RA call is required. Automated callouts do not need to be repeated.

|  |  |  |
| --- | --- | --- |
| **Phase** | **PF** | **PM** |
| At 1000’ Above Minimums  On Visual Approach this can be “1000” RA or delayed to 500’. (Set Baro  Min to 500’ Above TDZ Elevation.) | If Runway Is Not In Sight  **“Check”** and/or  When Runway In Sight  **“Runway - Landing”** | **“1000 (Above Minimums)”**   1. Verify Aircraft Configuration 2. Verify Lateral/Vertical Guidance 3. Verify Appropriate Airspeed   **“Stabilized” (or “500’ Stabilized”)**  **“Cleared To Land”** |
| 100’ Above MDA, DDA, or DA | **“Check”** | **“Approaching Minimums”** |
| Leaving MDA (Circling Approach) | **“Leaving MDA, Landing”** | **“Check”** |
| At or Above Minimums | Not Later Than Minimums  **“Runway - Landing”** | Runway Environment In Sight  **“Runway/Lights 1230”**  **“Cleared To Land”** |
| At Minimums | **“Go Around, Flaps 20”**  TOGA | No Runway Environment In Sight  **“Go Around”** |

## Final Approach (continued)

|  |  |  |
| --- | --- | --- |
| **Phase** | **PF** | **PM** |
|  | **“EVS Lights”**  100’ Above TDZE (Baro) | Previously Set Secondary Baro Min to 100’ Above TDZE. |
| EFVS Approach, Approaching Minimums | Runway Environment In Sight  **“Runway - Landing”** | OR, No Runway Environment In Sight |
|  |  | **“Go Around”** |
|  | **“Go Around, Flaps 20”** |  |
|  | TOGA |  |

## Landing

Thrust reverse can be actuated immediately after main gear touchdown.

**CAUTION:** DURING HEAVY CROSSWINDS AND/OR OPERATION ON ICY RUNWAYS, USE OF REVERSE THRUST BELOW 80 KTS IS DESTABILIZING DUE TO REVERSE THRUST EXHAUST PROXIMITY TO THE RUDDER, WHICH CAN REDUCE RUDDER EFFECTIVENESS. USE OF REVERSE THRUST SHOULD NOT BE USED AT THE EXPENSE OF DIRECTIONAL CONTROL.

|  |  |  |
| --- | --- | --- |
| **Phase** | **PF** | **PM** |
|  |  | Confirm Ground Spoiler Deployment  **“Ground Spoilers”** |
|  | If Autobrakes Are Being Used When Manual Braking Resumed  **“On Brakes”** | Confirm T/R Deployment  **“2 Deployed”**  If One or Both T/Rs do not deploy  **“NO T/Rs”** |
| Upon Main Gear Touchdown | Reduce Reverse Thrust to be at Reverse IDLE by 60 kts.  Reverse IDLE Can Be Used Down to Safe Taxi Speed 40-10 Kts. | Decelerating Through 70 kts  **“70 Knots”** |
|  | Use of Reverse IDLE on One or Both Engines May Be Required to Maintain Safe Taxi Speeds (>10 Kts.) and Reduce Wheel Brake Wear |  |
|  | **CAUTION:** THE USE OF BOTH THRUST REVERSERS SIMULTANEOUSLY IS PROHIBITED BELOW 10 KTS. SEE AFM LIMITATIONS. |  |

## Landing (continued)

|  |  |  |
| --- | --- | --- |
| **Phase** | **PF** | **PM** |
|  | **CAUTION:** DO NOT RETRACT FLAPS BELOW 10 DEGREES UNTIL IT IS VERIFIED THAT THE FLAP LEADING EDGE IS CLEAR OF ICE BY VISUAL INSPECTION. SEE AFM LIMITATIONS. |  |
| After Clearing the Runway or Attaining Safe Taxi Speed | **“Flaps Up, After Landing Check”** | **“Selected”** |
|  |  | Begins challenge/response Taxi Check |
|  |  | Ends with |
|  |  | **“After Landing Check Complete”** |

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