5 Standard Operating Procedures

5.1 General

An 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.

5.1.1 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.

5.1.2 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.

5.1.3 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.

5.1.4 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.

5.1.5 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.

5.1.6 Required Documents and Equipment

Crewmembers are required to report to work with:

a. Pilot certificate

b. Medical certificate

c. Passport

d. Airport ID Badge

e. Photo Identification

5.1.7 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.

5.1.8 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.

5.1.8.1 Deviation Callouts for Approaches

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

5.2 Preflight

5.2.1 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.

5.2.2 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:

a. [A]ircraft status: Release, preflight, discrepancies, MEL, fuel, etc.

b. [W]eather: Takeoff, enroute, destination/alternate, SIGMETs, etc.

c. [A]irport information: Runway length/status, approach aids, FBO, Risk Assessment,

terrain, obstructions, airport layout etc.

d. [R]oute: SIDS, STARS, nav facilities, airways, minimum safe altitudes, ATC procedures, etc.

e. [E]nvironment: NOTAMs, crew duties, passenger requirements, catering, threat

f. [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.

5.2.3 Crew Duties

5.2.3.1 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:

a. Compliance with CFRs, foreign counterparts when applicable, and company policies and regulations

b. Safe and orderly conduct of flight

c. Encouraging and using effective CRM in the management of the crew

d. 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

e. Placing catering orders according to passenger profiles or specific trip request, including crew meals

f. Supervising crewmembers throughout the flight, including flight preparation and completion of flight documentation

g. Training and development of crewmembers in techniques, methods, and day to day activities in accordance with Acme Corp Flight Department Policy and SOP

h. Assuming responsibility for custody of passengers and crewmembers until accepted by the state of entry on international flights

i. Performing passenger safety briefings for unfamiliar passengers

j. Communicating changes in weather and destinations to passengers

k. Ensuring that maintenance service and repairs obtained when an aircraft is not at its home base are coordinated with Maintenance

l. Ensuring that the Director of Maintenance or his/her designee is informed of any aircraft write ups

m. Ensuring required paperwork (including processing of receipts, etc.) is completed properly

n. The FMS and EFBs will be checked to ensure databases are current before the first flight of the day

5.2.3.2 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:

a. Prepare the aircraft cabin

b. Preflight inspection of cabin safety equipment

c. Perform security check for suspicious items

d. Ensure stock items in sufficient quantities

e. Confirm ice, coffee, and catering are boarded and stowed according to safe food handling standards

f. Chill appropriate beverages

g. Assist passengers with their bags and ensure they have their personal items

h. Cabin cleanup, including dishes and linens

i. Prepare cabin for next flight

5.2.3.3 Crew Duties Away From Home Base

a. Coordinate with lead passenger to confirm departure date and time

b. Unload passenger baggage

c. Check aircraft for any articles left behind

d. Install protective covers, if required

e. Monitor refueling

f. Complete paperwork (maintenance and operations)

g. Clean interior

h. Have lavatory serviced, as required

i. Arrange for crew transportation/hotel, if needed

j. Security of aircraft

k. Advise FBO of crew hotel and requirements for departure, and confirm procedures for towing and servicing

l. Remove AED for temperature extremes (hot or cold)

m. Complete any applicable checklists

5.2.4 Preflight Checks

5.2.4.1 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.

5.2.4.2 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.

5.2.4.3 Flight Deck Preflight

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

5.2.4.4 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.

5.2.5 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:

a. The PIC and SIC will jointly calculate the amount of fuel required for the next leg(s) and will inform the fueling agent

b. A fuel sample may be taken, at the discretion of the crewmember, before fueling begins

c. Confirm that the amount pumped corresponds to the amount requested

d. Enforce the no smoking policy and ensure that exits of the aircraft remain unobstructed

e. 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

f. Crewmembers shall be ready to initiate and direct an evacuation of the aircraft by the most practical and expeditious means available

g. Proper grounding procedures will be used. At a minimum, there must be a truck to aircraft ground wire attachment

h. 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

i. 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

j. 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

k. The aircraft will not be fueled if there is lightning within five miles of the airport

5.2.6 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.

5.2.7 EFB

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

5.2.7.1 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.

5.2.7.2 Requirements

[Amendment 37 Part 2 NX6 2.4.17.3]

a. Each flight crewmember must have in his/her possession his/her assigned EFB for every flight

b. Each EFB should have a means to charge while enroute

c. 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

d. It is recommended that the latest approved version of EFB software be loaded on each EFB

5.2.7.3 Applications

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

5.2.7.4 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.

5.2.7.5 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.

5.2.7.6 Unauthorized Use

Under no circumstance will any unauthorized person:

a. Change or modify the default settings and/or presentation as established by the system administrator

b. Modify the information contained within any file or database

c. Add or remove any applications or files from the EFB

d. Connect to the Internet, other than as provisioned by the JeppView FliteDeck updating process

e. Remove from the aircraft, other than as provisioned by the JeppView FliteDeck updating process

f. Update JeppView or any other program while under motion, either inflight on the ground

5.2.7.7 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 Identification and Tracking Form to the Director of Safety and Chief Pilot for review.

5.2.8 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.

5.2.9 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.

5.2.10 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.

5.3 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.

5.3.1 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.

5.3.2 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.

a. 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

b. During inclement weather, passengers may board and deplane in the hangar with APU running outside of the hangar

c. The aircraft should be positioned on the ramp at least thirty minutes prior to departure

d. 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)

5.3.3 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.

5.3.4 Firearms

Firearms are not permitted aboard Acme Corp Flight Department aircraft.

5.3.5 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:

a. When serving regular/recurring passengers who are familiar with the aircraft, route and have repeated exposure to that type of flight

b. 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.

5.3.5.1 Prior to Takeoff

PM will cycle the seatbelt sign prior to takeoff.

5.3.5.2 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.

5.3.5.3 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.

5.3.6 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.

5.3.7 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.

5.3.8 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.

5.3.9 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.

5.4 Takeoff

5.4.1 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.

5.4.2 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.

5.4.3 Runway Incursion Prevention

These procedures help prevent runway incursions:

a. Read back the taxi clearance, including runway hold short instructions

b. Both pilots should agree on the correct taxi clearance

c. If there is any doubt about the aircraft’s specific position or clearance, the crew should hold their position until receiving clarification

d. During taxi, the PF will concentrate primarily on maneuvering the aircraft according to ATC instructions

e. 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

f. The pilots shall turn on the strobes and visually and verbally “clear left and right” before entering or crossing any runway

g. The crew is encouraged to make use of progressive taxi instructions

h. The PM should enter any runway updates and changes into the FMS prior to departure

5.4.4 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.

5.4.5 Marginal Conditions

A takeoff shall be delayed when:

a. Thunderstorms are at or adjacent to the airport

b. Hail is observed

c. Moderate or greater wind shear is reported on the runway to 1500 ft AGL in the departure path

d. Wind velocities exceed 50 kts

e. Braking action reported as nil or RCAM 1 or less

f. Crosswind components exceed the demonstrated value in the AFM

g. The PIC determines for any other reason that delay is necessary

5.4.6 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.

5.4.7 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.

5.4.8 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.

5.4.8.1 Go/No Go Criteria

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

5.4.9 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.

5.4.10 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:

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

¼ mile is authorized, or

b. 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.

5.5 Enroute

5.5.1 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.

5.5.2 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:

a. A pilot will remain at duty station while inflight, and anytime the engines are operating

b. 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

c. 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

d. 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.

5.5.3 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.

5.5.4 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.

5.5.5 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.

5.5.6 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.

5.5.7 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.)

5.5.8 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.

5.5.9 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.

5.5.10 RVSM Inflight Procedures

[14 CFR § 91.211, 91.180, and 91.706]

a. Flight crews should comply with aircraft operating restrictions (if required for the specific aircraft group) related to RVSM airworthiness approval

b. 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:

i. The normal pilot scan of flight deck instruments should suffice for altimeter cross checking on most flights

ii. 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

iii. 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

iv. 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

5.5.11 Altitude Awareness

a. 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.

b. Procedure

• The following procedures shall be utilized for setting the system:

A. 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”);

B. 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.

5.5.12 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:

a. Excessive descent rate

b. Excessive terrain closure rate

c. Excessive altitude loss after takeoff or go-around

d. Unsafe terrain clearance while not in landing configuration:

i. Gear not locked down

ii. Flaps not in a landing position

e. Excessive descent below the instrument glide path

5.5.13 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.

5.5.14 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.

5.5.15 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).

5.5.16 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:

a. A life jacket equipped with a survivor locator light for each occupant of the aircraft

b. Enough life rafts, each having a survivor locator light, a pyrotechnic signaling device, and a survival kit, to accommodate occupants of the aircraft

c. A buoyant, water resistant signaling device

d. Radio communications equipment able to transmit to and receive from a surface facility, including:

i. Two transmitters

ii. Two microphones

iii. Two headsets or one headset and one speaker

iv. Two receivers

v. 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.

5.5.17 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:

a. Signaling devices

b. Lifesaving equipment (including means of sustaining life) as may be appropriate to the area overflown

5.5.18 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.

5.6 Approach and Landing

5.6.1 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:

a. The DA or MDA prescribed by the approach procedure

b. The DA or MDA for which the aircraft is equipped

5.6.1.1 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.

5.6.2 Approach Briefing

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

5.6.2.1 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.

5.6.2.2 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:

a. Approach category: Use Category D minimums

b. Entry, direction, and pattern of the circling maneuver

c. Aircraft configuration during the circling approach

d. Speeds to be flown

e. 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.

5.6.2.3 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.

5.6.3 In Range Check

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

5.6.4 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:

a. The landing gear is down, landing flaps set, trim set

b. 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

c. 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

d. The descent rate is not greater than 1000 fpm. Approaches that would require a descent rate greater than 1000 fpm require a special briefing

e. Indicated airspeed is between approach speed and approach speed

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

f. 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:

a. 1000 feet AGL during straight in approach

b. 500 feet AGL during a turning visual or circling approach

c. 1000 feet above MDA/DA during a straight in instrument approach

5.6.5 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.

5.6.6 Side Steps and Circling Approaches

Acme Corp Flight Department permits side steps or circling approaches.

5.6.6.1 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.

5.6.6.2 Circling Approach

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

a. Category D circling minimums will be used for Acme Corp Flight Department aircraft

b. Night circling approaches are limited to 1000 ft ceiling and three miles visibility

5.6.7 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.

a. 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.

b. 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.

c. Limitations and Provisions.

i. 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.

ii. LAHSO will not be authorized to a runway that does not have visual or electronic vertical guidance.

iii. LAHSO weather minima requires a prevailing ceiling of no less than 1500 feet and a visibility of at least 5 statute miles.

iv. 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.

v. At locations where a rejected landing procedure is published, the ceiling and visibility minima will be established in local flying directives and published.

vi. Night LAHSO will be conducted only where proper lighting configuration is installed.

d. 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:

A. Accept and comply with the hold-short clearance.

B. Refuse the clearance and request the full length of the runway.

C. Request a different runway.

D. 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.

5.6.8 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.

5.6.9 Missed Approaches

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

5.6.10 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.

5.7 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.

5.7.1 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.

5.7.2 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.

5.7.3 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.

5.7.4 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.

5.7.4.1 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.