CHAPTER 3

Standard Operating Procedures – Fixed Wing

GENERAL OPERATING RULES – FIXED WING
All aircraft operations will be conducted in accordance with all applicable FARs, local and national laws, manufacturers’ aircraft manuals and limitations and this Manual. Aircraft will be operated in an airworthy condition at all times. Aviation personnel are expected to utilize sound, conservative judgment in their approach to their duties. Safe transportation is the primary objective of the Department.

FLIGHT CREW CHECK-IN AND POST FLIGHT PERIOD
Flight crewmembers shall check-in for domestic flights (North America) no less than one hour and 15 minutes prior to the scheduled departure time. Flight crewmembers shall check-in for international flights (other than North America) no less than two hours prior to scheduled departure time. When the Chief Pilot or Trip Captain determines the conditions warrant additional time prior to departure, an earlier check-in time may be designated.

The post-flight period is assumed to be 30 minutes for domestic flights and one hour for international flights.

FLIGHT PLANNING
The Trip Captain is responsible for flight planning and related information (i.e. catering, ground transportation, servicing requirements, reservations etc.). The Trip Captain may assign this duty to the other pilot but retains the responsibility for the task. There must be no confusion as to which pilot is to do this function.

The pilot accomplishing the flight planning shall make the maximum use of available information and specialized equipment (computer flight planning and commercial weather services) provided by the Department.

The Trip Captain will fly the first leg as PIC (Captain) when departing a Department base. Subsequent legs shall be alternated in accordance with operational qualifications and by mutual agreement between the pilots.

REQUIRED PUBLICATIONS
Current copies of this manual, Aircraft Maintenance Log (AML), Deferred Maintenance Log (DML), Minimum Equipment List (MEL) and Federal Aviation Regulations (FAR) must be carried on board each Company aircraft.

The Department maintains subscriptions to FAA and Jeppesen for each aircraft and base Each Company aircraft will carry a current set of aeronautical charts, instrument approach procedure charts for the area of operation and applicable supplemental information.

The charts, FAA-approved aircraft flight manual (AFM), and any applicable supplements and operating handbooks for each aircraft and for installed optional equipment will be provided through a subscription or revision service, as applicable. Each Department aircraft will carry on board a current set of these manuals, handbooks, and supplements during all flight operations. A current copy of the IATA Hazardous Material Manual “Dangerous Goods Regulations” will be maintained at each base of operation.

Additional or supplemental publications may be obtained as needed. The Chief Pilot must approve all airport-related subscriptions and major purchases of publications.

Contract aircraft suppliers shall provide all required documents, manuals, approach and navigation charts and maps, certificates, licenses, logs and other written information for the aircraft being supplied. All contractor-supplied material must be complete and current.

WEATHER
Prior to each flight, the PIC will obtain aviation weather reports and forecasts and analyze the following data to determine the effect on the proposed operations:

- Latest NOTAM for the point of departure, route of flight, the destination and the alternate destination.

- Surface weather observations for pertinent stations.

- Forecasts for all pertinent routes and stations.
- Reports or forecasts of severe weather, turbulence or icing which could affect the proposed flight.
- Any known air traffic delays.

Pilots will check weather forecasts sufficiently in advance of a proposed flight and notify Flight Dispatch of any conditions that may affect passenger schedules. This includes checking weather forecasts the night before an early morning scheduled departure. The PIC may delegate some of these duties, but will retain responsibility.

SEVERE WEATHER AND WEATHER DETECTION DEVICES
Flights into areas of known or forecast severe weather will be avoided to the maximum extent possible. When flight is necessary into areas of reported thunderstorms, icing, turbulence, etc., avoidance will be accomplished using visual means, airborne radar and, when available, air traffic control assistance.

An operable weather radar must be installed in the aircraft if operation is planned into areas of known or forecast thunderstorm activity where avoidance cannot be accomplished by visual means.

APPROACH AND LANDING MINIMUMS
Each Department pilot making an IFR takeoff, approach, or landing at an airport (domestic or foreign) shall comply with the applicable instrument approach and weather minimums published for that facility.

At airports where weather reporting services are available, Department pilots shall not initiate an instrument approach procedure unless the latest weather report for that airport, reports the visibility at or above the published IFR landing minimums as depicted on the applicable instrument approach procedure chart consistent with the operational status of the approach facility being used.

If during an instrument approach that utilizes RVR for landing visibility, the RVR is reported to be below the required minimums before the aircraft has passed the FAF, the approach shall be aborted and a missed approach shall be executed. If the aircraft is inside of the FAF when the RVR is reported to have gone below minimum conditions, the pilot may continue the approach to DH or MDA.

At airports where weather services are not available, the approach may be initiated and a landing executed if, when reaching the MDA or DH, the weather is found to be at or greater than that specified for the approach.

Department pilots shall not operate an aircraft below the authorized MDA or continue an approach below the authorized DH unless:

- The aircraft is continuously in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers, unless that descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing.
- The flight visibility is not less than the visibility prescribed in the standard instrument approach procedure being used.
- Where any necessary visual reference requirements are specified by the FAA Administrator, at least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:
  A. The approach light system, except that the pilot may not descend below 100 feet above the touchdown zone elevation using the approach lights as a reference unless the red terminating bars or the red side row bars are also distinctly visible and identifiable.
  B. The threshold.
  C. The threshold markings.
  D. The threshold lights.
  E. The runway end identifier lights (REIL).
  F. The visual approach slope indicator (VASI).
G. The touchdown zone lights.

H. The runway or runway markings.

I. The runway lights.

CIRCLING APPROACHES
Department fixed-wing aircraft will be operated to Category D weather minimums during circling approaches.

If, in the case of some international airports, Category D minimums are not listed then the criteria for Category C minimums will be used during circling approaches.

BRAKING ACTION REQUIREMENTS
Aircraft operated by the Department shall not takeoff or land on runways that are covered with ice or snow unless a runway condition/braking action report can be obtained prior to operation.

The PIC operating at airports where ice or snow covered runways are reported, or anticipated, must obtain runway condition reports and braking action reports, prior to operating at those airports.

A braking action report must be evaluated with regard to its source, timeliness and changes to be expected with fluctuations in temperature. The reported braking action must be better than nil. Braking action reports of “fair or poor” are acceptable if the runway is into the wind and equals or exceeds the landing field requirement or the balanced field length requirement as defined in the airplane flight manual. Extreme caution should be exercised under these conditions. The PIC’s judgment shall always be the determining factor.

HIGH MINIMUMS CAPTAIN
The following restrictions apply to a new Captain who has not completed 100 flight hours as PIC in the assigned make/model/series of aircraft or has not completed 50 flight hours as PIC in another type of Department aircraft:

- Takeoff visibility of not less than 1/2 mile (RVR 2400/800 meters).
- The DH or MDA and visibility landing minimums must be increased by 100 feet and 1/2 mile respectively. This restriction applies to the destination airport, destination alternate and takeoff alternate.
- The runway length of the intended runway must be at least 15% greater than that required by the AFM.
- The high-minimums PIC must notify Flight Dispatch as soon as possible when it appears that the known or forecast weather conditions are insufficient for the planned flight.

SECOND-IN-COMMAND LIMITATIONS
Pilots who are not designated as Captain by the Flight Department Manager for the specific make/model/series of aircraft to be utilized may function as a second-in-command only.

The following restrictions apply to a second-in-command pilot who has not completed 100 hours as SIC in the make/model/series of the assigned aircraft:

- Make no takeoffs or landings from either seat except for training flights.
- May not fly with a high minimums captain.

A non-type rated SIC who has completed 100 hours as SIC in the make/model/series of the assigned aircraft may make left seat takeoffs and landings on non-passenger carrying flights when flying with a Standardization Pilot or a pilot designated by the [Position Title] when:

- Takeoff visibility is at least equal to or above the minimums for landing listed below.
- The DH or MDA and visibility landing minimums are increased by 100 feet and 1/2 mile respectively. This restriction applies to the destination airport, destination alternate and takeoff alternate.
The runway length of the intended runway must be at least 15% greater than that required by the AFM.

The crosswind component is less than 15 knots.

There is no standing water, slush or loose snow present on the runway.

The braking action is reported to be good or better.

A type-rated SIC with 100 or more hours may fly from the left seat during passenger carrying flights at the discretion of the PIC for that flight.

NOTE: All flight operations are at the final discretion of the PIC for that flight.

TAKEOFFMINIMUMS/TAKEOFF ALTERNATES

Unless lower takeoff minimums are specified on the applicable instrument approach procedure chart, or in this Manual, pilots shall use 1/4 mile (1600 RVR) visibility as a minimum for takeoff on all runways. Airports without an operating control tower must have 1/2 mile or greater visibility for takeoff on all runways. If takeoff minimums are not prescribed for a particular airport, 1 statute mile visibility shall apply for takeoffs under IFR.

In addition to the minimums specified herein, the pilot shall consider all of the factors affecting uncontrolled airport operations (i.e., other aircraft, animals or personnel on the runway, debris, pavement damage, etc.) and increase the takeoff minimum as necessary. Special attention shall be given to the charted minimum climb rate for obstacle avoidance as applicable.

If weather conditions at the time of takeoff are below the approved landing minimums, pilots will designate a takeoff alternate not more than one hour from the departure airport at normal cruising speed in still air with one engine inoperative. Before takeoff, the pilots shall determine from weather reports, forecasts, and NOTAM that the takeoff alternate is at or above the landing minimums and is expected to remain so for the time period during which the takeoff alternate is required.

ALTERNATE AIRPORT REQUIREMENTS

Requirements for filing an alternate airport:

Within the conterminous United States, an alternate airport need not be filed for a destination airport having a standard instrument approach procedure if the ceiling is forecast to be at least 2,000 feet (600 meters) above the destination airport elevation and the surface visibility is forecast to be at least 3 miles (4.8 km) at the destination airport for at least one hour before and one hour after the estimated time of arrival at the destination airport.

Within the conterminous United States, an alternate airport must be filed for a destination airport not having a standard instrument approach procedure if the ceiling and visibility do not allow descent from the MEA to approach and landing under basic VFR.

In other countries and Alaska and Hawaii, an alternate airport shall be specified for all destination airports unless the flight is over a route without available alternate airports for a particular destination airport, and the aircraft has enough fuel to fly to the destination airport and to fly for at least two additional hours at normal cruising fuel consumption.

An airport may not be listed as an alternate airport in the flight plan unless the appropriate weather reports or forecasts, or any combination thereof, indicate that the weather conditions will be at or above the alternate weather minima specified on the applicable instrument approach procedure chart for that particular airport when the flight arrives.

On the Jeppesen instrument approach procedure chart, alternate weather minima are found in the “for filing as alternate” box. When alternate weather minima are not specified for a particular airport, approved minimum weather is:

For airports having an approach with an electronic glideslope, a ceiling of 600 feet (180 meters) and a visibility of two miles (3200 meters).
• For airports with LOC, VOR, etc., type approaches, a ceiling of 800 feet (240 meters) and a visibility of two miles (3200 meters).

• For airports with no approved instrument approach, a ceiling of at least 1000 feet (300 meters) above the lowest MEA or MOCA and a visibility of at least three miles (4.8 km).

Footnotes on the Jeppesen instrument approach procedure chart for any particular airport may specify additional applicable restrictions for filing the airport as an alternate airport.

In the event of a diversion to an alternate, regular Company and FAR or ICAO minimums become applicable. Rules applicable to high minimum pilots at regular airports apply equally at the alternate in this case.

NOISE ABATEMENT
Pilots will adhere to published noise abatement procedures and voluntary curfews except when the safety of flight is involved.

MINIMUM RUNWAY REQUIREMENTS
The minimum authorized runway lengths for use by fixed-winged aircraft owned/leased, operated, contracted or chartered by the Company shall;

• Equal, or exceed, the balanced field length, as defined by the FAA and found in the AFM, corrected for ambient conditions, and;

• Meet the aircraft climb performance required for the flight.

The following minimum runway lengths are for Flight Dispatch planning information only and are based on standard day (59°F), sea level, dry runway conditions. Altitude, temperature, runway surface conditions and surface wind direction and velocity will affect performance. Passengers must be advised by Flight Dispatch that changing weather conditions can prohibit operations, reduce payload and range from these airports.

The PIC will be the final authority regarding operations to, from and on any airport. Flight Dispatch must obtain prior approval from the [Position Title] for operations at airports with less than:

• [XXXX] feet available for the [aircraft type].

• [XXXX] feet available for the [aircraft type].

Runways must be at least 75 feet wide, hard surfaced and capable of supporting maximum wheel loading of the aircraft to be used. Runways used for operations during hours of darkness must be equipped with functional runway edge lighting.

MINIMUM LANDING FUEL RESERVES
The following fuel quantities have been established as the minimum reserve fuel planned to be on board Company aircraft at the time of landing. The minimum fuel reserves are designed as an absolute minimum and are not intended to be used as a landing fuel target. If a landing is made with less than the specified quantity of fuel on board, the Trip Captain shall submit a written report explaining the use of the reserve specified to the Chief Pilot and the Manager Training and Standards within five working days.

• [aircraft type]: XXXX lbs.

• [aircraft type]: XXXX lbs.

OPERATING AT UNCONTROLLED AIRPORTS
The following are recommended operating procedures for operating on or in the vicinity of an uncontrolled airport. When approximately 15 miles out, pilots should ask ATC if there is any conflicting traffic and monitor the ATC frequency for traffic alerts. Approximately ten miles out, pilots shall broadcast, in the blind if necessary, position and intentions on the Common Traffic Advisory Frequency (CTAF) or Local Airport Advisory (LAA). Calls recommended on CTAF or LAA are:

• Ten miles out.
• Entering downwind.
• Base.
• Final.
• Exiting the runway.

IFR flight plans should be canceled to avoid initiating search and rescue operations for overdue aircraft, but not until after landing at uncontrolled airports. On instrument approaches, it is recommended that pilots broadcast the following on CTAF:

• Departing final approach fix.
• On final approach.
• Approach completed.

It is the responsibility of the PIC to ensure that the runway is clear. If conditions permit, an approach overhead the airport helps to verify that the runway is clear, the wind direction, the runway in use, and increases the probability of visual acquisition by other aircraft.

When departing from the 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. Recommended procedures are:

• Make frequent radio calls. Request any traffic in the vicinity of the airport identify themselves so that you are aware of each other’s presence.
• Turn all exterior lights on. Dim interior lights as much as possible during night operation for better outside visibility.
• BE ALERT. Complete as many checklist items as possible before entering the pattern.
• Call the airport manager or the FBO prior to departing on the trip to inquire about runway conditions, weather, NOTAM, runway lighting, obstacles or any possible hazards.
• Review charts prior to flight and note minimum altitudes for terrain clearance.

AIRWORTHINESS DETERMINATION (PILOTS)
The final responsibility for determining airworthiness of the aircraft rests with the PIC (FAR 91.7). In addition to completing a pre-flight check, the PIC shall thoroughly review the Aircraft Maintenance Log and Deferred Maintenance Log and confirm that the aircraft is in an airworthy condition. These responsibilities include but are not limited to ensuring:

• Compliance with all applicable AD’s and mandatory service bulletins.
• That the planned flight or series of flights will not exceed the time remaining for the time/date maintenance requirements as shown on the “Item Due” sticker.
• That all inspection due dates, hour or cycle limits have been carried forward and are not past due.
• That all maintenance discrepancies have been corrected or deferred in accordance with the MEL. All maintenance record entries shall be completed and signed by a certified technician approving the aircraft for return to service.
• That the deferred items do not render the aircraft unsuitable for the planned flight or series of flights.
• That all required equipment and documents are on board.
AIRCRAFT PRE-FLIGHT CHECK
Pre-flight checks are to be accomplished by a pilot in accordance with the type-specific Aircraft Flight Manual.

Upon completion of the pre-flight check, the pilot completing the check shall make an entry in the current Aircraft Maintenance Log.

USE OF MINIMUM EQUIPMENT LIST (MEL)
The FAA requires that all systems, components and equipment must be in operating condition prior to aircraft dispatch unless allowed to be deferred by an FAA-approved MEL. An FAA approved copy of the MEL will be carried on board each Department aircraft. If an aircraft system becomes inoperative away from the home maintenance base, the pilot will enter the discrepancy in the AML. Any maintenance, operational action or installation of placards or mechanical stops, etc. required by the MEL must be completed prior to the next flight.

VOR CHECK
The Trip Captain or designee shall complete, or verify completion of, a VOR check in accordance with FAA regulations. If a VOR check is due, the pilot shall complete the check and make an entry in the AML:

In the Discrepancy block: “VOR Check Due”

In the Corrective Action block: “VOR Check Completed”

Date
Place
Bearing Error
Signature & ATP Number

After completing the AML entry, the Pilot shall initial and date in the appropriate block of the “VOR Check” sticker located on the inside cover of the AML log binder.

COLD WEATHER OPERATIONS
Department aircraft should be hangared when freezing precipitation or snow is anticipated.

If the aircraft is exposed to accumulations of frost, ice or snow, the contamination will be removed in accordance with the aircraft manufacturer’s recommended procedures and industry-standard methods prior to flight. The aircraft should be pre-heated, when possible, prior to attempting to activate any of the aircraft systems. Cabin systems (water storage, food and drink containers, coffee-makers, etc.) must be properly handled (removed and stored in heated area, serviced with anti-freeze, etc.) to prevent damage from freezing or during defrosting.

Aircraft parked outside should be headed into the wind when possible to minimize the accumulation of frozen precipitation in the openings around flight control surfaces. Covers and plugs must be installed to protect the engine inlets from accumulation while the aircraft is parked. The parking brakes must be released after the aircraft has been chocked to prevent damage due to temperature changes.

FROST, SNOW AND ICING
No pilot shall attempt a takeoff if the aircraft has frost, snow or ice adhering to any, windshield, powerplant installation, flight or rate instrument system, wings, control surfaces or other areas that could affect flight characteristics or performance.

Aircraft that are found to have frost, snow or ice accumulations must be de-iced prior to flight in accordance with the aircraft manufacture’s recommended procedures using industry standard procedures and materials. If existing conditions could cause accumulations to reoccur, the PIC must ensure that the aircraft is deiced as often as necessary based on deicing product specifications and observed conditions. Prior to takeoff, the PIC must determine that there is no accumulation that would affect performance of the aircraft.

Flight must not be attempted into known or forecast icing conditions unless the aircraft deicing/anti-icing systems are fully functional. No Company aircraft shall be flown into known severe icing conditions.

TOWING
All towing operations will be performed in accordance with the methods and limitations described in the appropriate sections of the AFM and maintenance manual.

AIRCRAFT REFUELING PROCEDURES
The Trip Captain is responsible to ensure that fuel is of the proper grade and quality and that the desired amount is placed into the aircraft fuel tanks. The Trip Captain may delegate the fueling of the aircraft but retains the responsibility. The crewmember should verify that the refueling equipment is labeled with the name of the product ordered (Jet A, Jet B, etc.), and is properly positioned and is not under any part of the aircraft that could settle during refueling. Fuel trucks should not be backed up to the aircraft and should be parked so that the truck could be moved away from the aircraft in case of a malfunction or emergency.

Passengers cannot remain onboard the aircraft during refueling unless there is a crewmember present in the cabin and positioned near the cabin door. The main entry door must remain open. No smoking is permitted during refueling.

The fuel truck should be bonded to the aircraft structure at the recommended bonding point and the nozzle ground wire attached before any fuel cap is opened or the nozzle is connected to the single-point refueling system. The crewmember should set up the refueling control panel unless the person operating the refueler has been determined by the crew member to be competent. When required by the aircraft type or mission a crewmember shall remain in the vicinity of the aircraft until the refueling has been completed. A flight crewmember shall ensure that the refueling panel and fuel cap(s) are secure and determine that all bonding wires have been disconnected from the aircraft.

No fueling will be allowed if a thunderstorm is in the immediate vicinity of the fueling facility. All strobe lights will be turned off and no radio transmissions shall be made during fueling.

If there is any question as to the quality of the fuel or fueling equipment being used, the flight crewmember will request that a sample be taken from the final fuel filter of the refueler or from the delivery nozzle being used to refuel the aircraft prior to accepting fuel into the aircraft. Fuel samples should have a clear and bright appearance and have no evidence of free or suspended (cloudy or hazy) water and have no visible particulate matter (dirt, rust, etc.). Fuel that is not clear, clean and free from water should not be accepted.

GROUND POWER UNITS
When a ground power unit (GPU) is supplying power to aircraft systems, one person qualified to operate the GPU must remain in attendance in the immediate vicinity of the aircraft. The immediate vicinity of the aircraft is defined as sufficiently close in proximity to enable the person to take immediate corrective action in the event of an emergency involving the aircraft or the power unit.

CABIN EMERGENCY EQUIPMENT
Emergency equipment meeting the requirements of FAR 91.513 and passenger briefing cards are carried on Department aircraft. Each crewmember shall be familiar with the location, condition inspection, status (per attached inspection tag or label) and operation of the emergency equipment carried on board the aircraft.

SURVIVAL EQUIPMENT REQUIREMENTS
No flight will be conducted over water that is more than 30 minutes flying time, or 100 nautical miles from the nearest shoreline unless the equipment specified in FAR 91.509 is carried on board the aircraft. Additional equipment may be carried, as necessary, on flights over sparsely populated areas such as the arctic regions, deserts, jungle, etc.

The Trip Captain will ensure that the proper amount and type of equipment is on board prior to departure and that each crewmember is aware of the operation and location of all survival equipment.

BAGGAGE LOADING/STORAGE
Baggage will be placed in designated compartments or placed where it will not block access to aisles or normal or emergency egress routes. Passengers may access hand baggage during cruise flight. Baggage must be secured for takeoff and landing and passengers shall be briefed of this requirement. All baggage must be properly positioned within center of gravity limits and within the load limits for each compartment or area of the cabin. Safety webbing must be used where installed. Cabin baggage, including briefcases, must be properly secured to prevent it from becoming a projectile during takeoff, landing or during in-flight turbulence.

CABIN ANNOUNCEMENTS/BRIEFINGS
Pilots are to keep passengers informed of delays and other important information pertinent to the flight before each takeoff. The PIC shall ensure that all passengers are briefed as required under FAR Part 91, which includes the following:

- Use and operation of seat belts and shoulder harnesses.
• The requirement for seats to be returned the upright position and tables to be placed in the stowed position during takeoff and landing.

• The location and operation of emergency exits.

• The location and operation of survival equipment.

• Use of the Smokeshield respirator devices.

• Use of oxygen.

• Smoking.

• Stowage of loose articles and hand baggage.

• Use of portable electronic devices.

Recorded briefings may be used and supplemented by printed briefing cards. These cards must be carried in a location that is visible and convenient and must contain aircraft specific information.

Prior to flights requiring flotation equipment, pilots shall ensure that all passengers have been briefed on its use.

The aircraft will not take the runway for departure until all passengers are seated with seat belts fastened and loose articles are properly stowed.

PORTABLE ELECTRONIC DEVICES
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.

Portable tape recorders, pacemakers, hearing aids, electric shavers, DVD/CD players and portable computers are acceptable for use on board Department aircraft.

STERILE COCKPIT
Crewmembers will eliminate all extraneous cockpit conversation that does not apply directly to the operation of the aircraft anytime the aircraft is in motion on the surface, or airborne, while operating below 10,000 feet MSL.

The sterile cockpit environment will also be maintained during climbs and descents when within 1000 feet of reaching an assigned altitude.

ADMISSION TO THE COCKPIT/JUMPSEAT
No person shall be admitted to the cockpit except as defined herein:

• A crewmember assigned to the flight (PIC, SIC, Maintenance Technician, Flight Attendant).

• A person engaged during flight for the purpose of checking pilot performance for a government agency (FAA Examiner or Designated Pilot Examiner).

• A Department Standardization Pilot, or other person designated by the Department, to provide pilot training or conduct a flight crew performance evaluation.

• Company maintenance technicians or other technical personnel directly involved in maintenance related activities requiring an in-flight evaluation or adjustment.

A passenger may occupy the jump seat (observer’s position) during takeoff, landing and/or cruise flight at the discretion of the PIC. This passenger must also have a cabin seat available in case an emergency situation arises.

Anyone occupying the jump seat for takeoff or landing must be thoroughly briefed on the following:
• Operation of the jump seat.

• Use of the oxygen mask.

• Sterile cockpit procedures.

• Actions to take in case of an emergency.

OPERATION OF FLIGHT CONTROLS
Only Department employees designated as pilots, contract pilots, contract flight training pilots, FAA Pilot Examiner or Designated Pilot Examiner, a qualified manufacturer’s test pilot or a Company designated instructor pilot may manipulate the flight controls of any Company aircraft.

PILOTS AT DUTY STATION DURING FLIGHT
Pilots shall remain in the cockpit at all times during flight except to meet physiological necessities or passenger safety requirements. During take-off, climb, descent, landing and IMC, both pilots shall be seated at their duty stations with seat belts and shoulder harnesses fastened. One pilot shall remain at the controls with the seat belt fastened at all times (see also Crew Member Use of Supplemental Oxygen).

CREWMEMBER USE OF SUPPLEMENTAL OXYGEN
Pilots must be familiar with the use of the quick-donning flight deck oxygen masks. When stowed, the oxygen masks must be set to 100% and in a “ready” position.

If it is necessary for one pilot to leave the assigned duty station when operating at flight altitudes above 35,000 feet, the remaining pilot at the controls shall put on and use an oxygen mask until the other pilot has returned to the assigned duty station. Each pilot shall ensure that the flight deck oxygen mask provided is properly adjusted to provide a good fit and male pilots shall maintain any beard or mustache in a manner that will allow the oxygen mask to properly seal against the face of the wearer.

All flight deck positions, including the jump seat, must be equipped with an operational and suitable oxygen mask when occupied at altitudes above 12,500 feet MSL.

STANDARDIZATION PROGRAM
The Department Standardization Program encompasses the use of Standard Operating Procedures (SOP’s) and Standardization Flights to ensure effective crew coordination. Crew coordination is the effective delegation of responsibility and division of workload among the flight crewmembers. Crew coordination is essential in the safe operation of Department aircraft.

The use of SOP’s, checklists and terminology creates a standardized system whereby the pilots become immediately aware of any departure from the normal sequence of events or normal system operations. The use of these SOP’s will place the flight crew in the best position to recognize potential problems and respond to emergency and abnormal situations in the proper manner.

Flight crews are not authorized to deviate from Department procedures unless the deviation is in the best interest of safety. All such deviations shall be reported to the [Position Title] within 24 hours of the occurrence. A constant evaluation process ensures that these procedures are effective and suitable for Department flight operations.

The PIC retains the final authority for the conduct of the flight. Unless already dictated by Department SOP’s, the PIC must clearly establish the pilot flying (PF) and pilot not flying (PNF) responsibilities so that there will be no confusion as to the duties or task assignment.

The PF’s primary responsibility is to fly the aircraft and operates or commands the operation of the flight controls, flight instruments, and the autopilot.

The PNF performs all other cockpit duties including the following:

• In normal flight - Navigates, communicates, programs communication and navigation equipment, monitors the radar and flight and engine instruments, and completes required paperwork and other tasks, as directed by the PF.
• During emergencies or abnormal system operations - checks instrument indications, reads and accomplishes checklists, performs checks, takes corrective action, as necessary.

All emergency actions taken by the PNF should be validated with the PF and concurrence obtained prior to taking the action. If an apparent error in any flight parameter is detected, the PNF shall immediately notify the PF of the deviation from published procedures, limitations, or air traffic clearance or routing. The PF and the PNF shall coordinate with each other prior to initiating the following:

- A change in aircraft configuration.
- A transferring of aircraft control.
- Selection or change of navigation equipment settings or frequencies.
- Checklist initiation and completion.
- A change in altitude.

PRE-DEPARTURE BRIEFING
The PIC shall conduct a pre-departure briefing prior to each flight. The briefing shall include all crewmembers to enhance team-building and set the tone for the flight. Thorough preflight briefings shall be used to ensure that no significant points are omitted.

USE OF CHECKLIST
The Department SOP’s are based on the systematic use of checklists to accomplish the required checks (normal, abnormal, emergency etc.). SOP items that are shown in quotation marks are to be stated as written.

STANDARD OPERATING PROCEDURE
The following SOP is to be utilized in all routine fixed-wing flight operations conducted by the department. Any deviation from this SOP as dictated by conditions, or circumstances, must be thoroughly briefed by the PF and understood by all crewmembers.

BEFORE STARTING ENGINES CHECK

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF or PNF</th>
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<tbody>
<tr>
<td>Pre-flight check completed.</td>
<td>The cockpit preparation can be completed by either pilot using the Before Starting Engines checklist. However, certain tasks completed by only one pilot should be verified by both pilot crew members prior to starting engines. These tasks are:</td>
</tr>
<tr>
<td></td>
<td>• Completion of the Before Starting Engines checklist</td>
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<tr>
<td></td>
<td>• Flight Management Systems (FMS) data entries</td>
</tr>
<tr>
<td></td>
<td>• Navigation system setup</td>
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<td></td>
<td>• TOLD information</td>
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<td></td>
<td>• ATC clearance</td>
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<td></td>
<td>• Altitude alert/preselect</td>
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STARTING ENGINES CHECK
A minimum of one person qualified to operate aircraft engines must be seated in a pilot seat when an aircraft engine is started, or running. Engines will be started utilizing the proper checklist procedures. Before starting an engine, the immediate area around the aircraft must be visually checked for potential hazards to ensure a safe start. Pilots should

make an effort to have a line service person act as an outside observer during engine starts whenever practical. All engines must be started before commencing taxi.

The ATC clearance should be obtained and reviewed prior to starting engines if practical.

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<tr>
<th>Task/Initiation Cue</th>
<th>PF or PNF</th>
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<tbody>
<tr>
<td>Before Starting Engines check complete.</td>
<td>Start engines utilizing a flow pattern check.</td>
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</table>

AFTER STARTING ENGINES CHECK

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<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>After engines have been started.</td>
<td>Call, “After Starting Engines check.”</td>
<td>Call, “After Starting Engines check complete.”</td>
</tr>
<tr>
<td></td>
<td>Both pilots complete the After Starting Engines checklist.</td>
<td></td>
</tr>
<tr>
<td>All engines running and After Starting Engines checklist complete.</td>
<td>Call, “Ready to taxi.”</td>
<td>Obtain taxi clearance.</td>
</tr>
<tr>
<td>Aircraft cleared to taxi.</td>
<td>Call, “Taxi check.”</td>
<td></td>
</tr>
</tbody>
</table>

TAXI CHECK
Nosewheel steering and braking should be checked as soon as possible during taxi and while speed is very low.

When any Department aircraft is to be moved under its own power, two persons qualified to taxi the aircraft are required to be seated in the pilot seats with seat belts fastened and seats and controls properly adjusted. Operation on crowded ramps and taxiways requires the attention of both pilots. Paperwork and other cockpit duties shall not be accomplished while taxing in close proximity to other aircraft or obstructions. Both pilots shall maintain maximum possible vigilance. When the aircraft is being maneuvered in close quarters, the pilot not controlling the aircraft will signify proper clearance on the respective side of the aircraft by placing a hand on the center of the glareshield with the thumb in a thumb-up signal. This will place the hand signal in the pilot’s peripheral vision and will allow the person taxiing to devote maximum attention to the other respective side of the aircraft and the area in front of the aircraft. The aircraft will not be taxied unless both pilots have determined that there is enough clearance to maneuver the aircraft safely. When adequate clearance is in doubt, the aircraft should be towed.

Systems checks should be accomplished so that, at least, one pilot is maintaining vigilance. Checks should be accomplished at times and locations, during taxiing, with the least exposure to a ground mishap and appropriate for verification of system integrity.

It may be necessary for the PNF to get the clearance during taxi. If possible, cockpit flow should be managed to avoid this. However, when the PNF is required to copy the clearance during taxi, the PF must maintain vigilance and care in taxiing. Changes to any clearance or procedure prior to departure shall be reviewed by both pilots with the airplane stopped.

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF calls, “Taxi check.”</td>
<td>Both pilots complete Taxi Checklist, in accordance with aircraft type-specific AFM, through takeoff briefing.</td>
<td>Complete checklist.</td>
</tr>
</tbody>
</table>

TAKEOFF BRIEFING
Prior to taking the active runway for takeoff, the PF shall consider (at least) the following items, and brief the PNF, with regard to:
• Special factors influencing this takeoff (wet runway, anti-icing requirements, crosswind, deviations from the norm, etc.).
• Verify the airspeed settings (bugs) and power settings to be used.
• Verify the navigation equipment setup.
• Verify the initial flight clearance (headings, altitudes, etc.).
• Review the emergency return plan.
• PF will complete the briefing by asking “Do you have anything to add?”
• If the PNF has nothing to add, the response will be “I have nothing to add.”
• If the PNF has questions or comments, they will be addressed before continuing the checklist.

NOTE: Standard Briefing - Abort for any warning light or reason up to 80 knots. After 80 knots, up to V1, abort for:

A. Engine fire/failure
B. Thrust reverser deployment
C. Aircraft control problem
D. Any WARNING condition

After V1, continue the takeoff and handle the problem as an airborne emergency. The PNF will silence the aural warning.

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takeoff briefing completed.</td>
<td></td>
<td>Complete Taxi checklist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Call, “Taxi check complete.”</td>
</tr>
</tbody>
</table>

BEFORE TAKEOFF CHECK
Both pilots will review any changes in the ATC clearance prior to initiating the Before Takeoff checklist. All Before Takeoff checklist items must be completed before the takeoff roll commences. This operation is the final check before the flight phase and must be properly completed.

The aircraft parking brake will not be set while the aircraft is on the active runway.

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleared onto active runway for</td>
<td>Call, “Before Takeoff check.”</td>
<td>Complete checklist.</td>
</tr>
<tr>
<td>takeoff.</td>
<td></td>
<td>Call, “Before Takeoff check complete.”</td>
</tr>
</tbody>
</table>

TAKEOFF PROCEDURES
Takeoff power must be set prior to attaining 60 KIAS. Runways that are limited by performance requirements for the aircraft gross weight, or by other factors, will require the use of a specific takeoff procedure, as shown below. Refer to the applicable AFM. The PF must advise the PNF of the procedure that will be utilized.

TAKEOFF

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
</table>
**Safety Best Practices Manual**

In position on the active runway. Before Takeoff checklist completed and cleared for takeoff.

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold brakes. Advance power to takeoff N/EPR, per AFM. Monitor engines and systems indications.</td>
<td>Call, “Power set, instruments stabilized.” Monitor engines and systems indications.</td>
<td></td>
</tr>
</tbody>
</table>

**TAKEOFF ROLL**

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 80 KIAS.</td>
<td>Maintain directional control.</td>
<td>Steady the control yoke with the right hand (as applicable to aircraft type). Call, “Airspeed alive.”</td>
</tr>
<tr>
<td>Positive airspeed indication, PNF calls, “Airspeed alive” at 80 KIAS.</td>
<td>Verify airspeed.</td>
<td>Verify 80 knots indicated on both PF and PNF airspeed indicators. Call, “80 knots cross-checked.”</td>
</tr>
<tr>
<td>PNF calls, “80 knots crosschecked.”</td>
<td>Move left hand from nose steering to control yoke and call, “My yoke” (as applicable to aircraft type).</td>
<td></td>
</tr>
<tr>
<td>PF calls, “My yoke” (as applicable to aircraft type).</td>
<td>Release control yoke (as applicable to aircraft type).</td>
<td></td>
</tr>
<tr>
<td>At V1.</td>
<td>Call, “V1.”</td>
<td></td>
</tr>
<tr>
<td>PNF calls, “V1.”</td>
<td>Move right hand to control yoke.</td>
<td></td>
</tr>
<tr>
<td>At VR.</td>
<td>Call, “Rotate.”</td>
<td></td>
</tr>
<tr>
<td>PNF calls, “Rotate.”</td>
<td>Rotate aircraft to pitch attitude per AFM.</td>
<td></td>
</tr>
</tbody>
</table>

**AFTER TAKEOFF CHECK**

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive rate of climb.</td>
<td></td>
<td>Call, “Positive rate.”</td>
</tr>
<tr>
<td>At 400’ AGL.</td>
<td>Maintain pitch attitude per AFM.</td>
<td>Monitor engine and flight instruments. Call, “400 feet.”</td>
</tr>
<tr>
<td>PNF calls, “400 feet,” at final takeoff climb speed (400’ AGL minimum).</td>
<td>Call, “Flaps up.”</td>
<td>Confirm IAS not less than final takeoff climb speed. Select flaps 0°. Call, “Flaps selected up.” Monitor and call, “Flaps and gear indicate up.”</td>
</tr>
<tr>
<td>PNF calls, “Flaps and gear indicate up.”</td>
<td>Accelerate to normal (or ATC clearance) climb IAS.</td>
<td></td>
</tr>
</tbody>
</table>

**ALTITUDE VERIFICATION PROCEDURE**

The following procedures will normally be used regardless of which pilot is flying:

- PNF sets the altitude and points to the altitude alerter.
- PF points at the new altitude and verbally acknowledges it.

NBAE Safety Best Practices

If there is anything other than total agreement by both pilots during the verification process, ATC is to be contacted immediately to resolve the conflict. Always seek verification of any clearance you do not understand or is understood differently by any crewmember. NEVER resolve a clearance conflict issued by cockpit consensus alone. Do not leave an assigned altitude if there is any question about a newly assigned altitude until it has been verified with ATC.

ALTITUDE CALLOUT PROCEDURE
The PF will verbalize leaving the altitude 1,000 feet prior to an assigned altitude. The callout is to include the altitude vacating and the assigned altitude i.e. “Six thousand for seven thousand” or “Flight level three-zero-zero for two-niner-zero.” After the PF makes this call, the PNF will verify and validate the call by stating “check.” If the PF fails to make the call, the PNF shall initiate the call and the PF shall validate the call.

18,000 FOOT CLIMB CHECK

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>At or above 18,000 MSL PF or PNF calls, “18,000” feet.</td>
<td>Either PF or PNF call, “18,000 feet.”</td>
<td>Either PF or PNF call, “18,000 feet.”</td>
</tr>
<tr>
<td>PF or PNF calls, “18,000” feet.</td>
<td>Call, “18,000 Foot Climb check.”</td>
<td>Complete checklist. Call, “18,000 Foot Climb check complete.”</td>
</tr>
</tbody>
</table>

NOTE: Both pilots set altimeters. PNF calls, “Altimeters set and cross-checked”.

CRUISE CHECK

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established at assigned cruise altitude.</td>
<td>Either PF or PNF call, “Cruise check.”</td>
<td>Either PF or PNF call, “Cruise check.”</td>
</tr>
<tr>
<td>PF or PNF calls, “Cruise check.”</td>
<td></td>
<td>Complete checklist. Call, “Cruise check complete.”</td>
</tr>
</tbody>
</table>

DESCENT CHECK

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
</table>

18,000 FOOT DESCENT CHECK

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18,000 MSL</td>
<td>Either PF or PNF call, “18,000 feet.”</td>
<td>Either PF or PNF call, “18,000 feet.”</td>
</tr>
<tr>
<td>PF or PNF calls, “18,000” feet.</td>
<td>Call, “18,000 Foot Descent check.”</td>
<td>Complete checklist. Call, “18,000 Foot Descent check complete.”</td>
</tr>
</tbody>
</table>

NOTE: Both pilots set altimeters. PNF call, “Altimeters set and cross-checked”.

APPROACH BRIEFING
The PNF shall have the appropriate navigation and approach charts organized and readily available. The PNF shall obtain the destination weather and the approach in use information and advise the PF. The PNF shall complete the landing data computations (or verify if already computed) and enter or post numbers, as applicable.

Both pilots shall review the information and procedure to be used for the descent and approach. The PF shall provide a brief description of intentions to the PNF. The briefing should be concise and not be an attempt to memorize the approach procedure. It should include a review of the pertinent information and any special conditions, or procedures, that will be utilized for the approach and landing.

The 4 “M”s should be reviewed as follows:

- MSA.
- Marker altitude.
- Minimum altitude.
- Missed approach procedure.

Setup and use of navigation equipment and automation shall be briefed as applicable. If any abnormal conditions occurred during the flight which will have an effect on the intended approach and landing, those implications must be thoroughly briefed and understood by both pilots.

- PF will complete the briefing by asking “Do you have anything to add?”
- If the PNF has nothing to add, the response will be “I have nothing to add.”
- If the PNF has questions or comments, they will be addressed before continuing the checklist.

IN-RANGE CHECK
Complete the In-Range check when below 10,000 feet MSL or within 30 nautical miles of the destination airport.

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10,000 feet MSL or within 30 nautical miles of destination airport.</td>
<td>Call, “In-Range check.”</td>
<td>Complete checklist. Call, “In-Range check complete.”</td>
</tr>
</tbody>
</table>

APPROACH CHECK

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
</table>

PRECISION APPROACH (ILS)

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annunciators indicate course capture.</td>
<td>Call, “Localizer capture.”</td>
<td>Confirm and call, “Localizer capture.” Set heading bug to initial missed approach heading (as applicable).</td>
</tr>
<tr>
<td>First movement of the glideslope indicator.</td>
<td>Call, “Glideslope alive.”</td>
<td>Confirm and call, “Glideslope alive.”</td>
</tr>
</tbody>
</table>

BEFORE LANDING CHECK (PRECISION APPROACH)
Landing gear and landing flaps will be selected at or before the final approach fix (FAF). Approach will be stabilized from FAF until landing or missed approach.
### BEFORE LANDING CHECK (NON-PRECISION)

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAF.</td>
<td>State the MDA</td>
<td>Verify MDA Call the tower and start the time.</td>
</tr>
<tr>
<td>1000’ above minimums.</td>
<td>Call, “1000’ above minimums.”</td>
<td>Call, “1000’ above minimums.”</td>
</tr>
<tr>
<td>Landing clearance.</td>
<td></td>
<td>Prior to MDA obtain and confirm landing clearance. Call, “Cleared to land.”</td>
</tr>
<tr>
<td>500’ above minimums.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100’ above minimums.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision Height.</td>
<td></td>
<td>If the runway environment is in sight, call what you see. E.g. “Approach lights, continue.”</td>
</tr>
<tr>
<td>Runway in sight.</td>
<td>Call, “Runway in sight.”</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision Height.</td>
<td>Call, “Going around.”</td>
<td>If the runway environment is NOT in sight, call, “Minimums, go-around.”</td>
</tr>
</tbody>
</table>

NOTE: If visual contact is lost beyond the MAP, a go-around is to be announced and executed by the PF.
At minimum descent altitude

<table>
<thead>
<tr>
<th>At minimum descent altitude</th>
<th>Call, &quot;Minimums, (state time or distance) to go.&quot;</th>
</tr>
</thead>
</table>

**PNF calls, “Minimums, (time or distance) to go.”**

Verify altitude and time or distance to go. Call, "Check."

**Crossing missed approach point.**

If the runway environment is in sight, call what you see. E.g. “Approach lights, continue.”

**Runway is in sight.**

PNF calls, “Runway in sight.”

Call, “Runway in sight.”

**OR**

Crossing missed approach point.

Call, “Going visual” (Final flap setting should be selected when landing is assured).

Confirm going visual call by stating, “Roger, monitoring instruments.” Monitor flight instruments.

PNF calls, “Minimums, go-around.”

Call, “going around.”

Execute missed approach procedure.

**NOTE:** If visual contact is lost beyond the MAP, a go-around is to be announced and executed by the PF.

**VISUAL APPROACH**

Reported weather at the airport must have a ceiling of at least 1000 feet and visibility of at least 3 miles.

Landing flaps will be selected no later than 500 feet AGL. The approach will be stabilized from 500 feet AGL until landing. The stabilized approach requires the aircraft to be established on the desired track, glide path, in landing configuration and with airspeed and sink rate constant.

**APPROACH DEVIATION LIMITS (CALLOUTS AFTER PASSING FAF OR 1000 FEET AGL)**

After passing the FAF or 1000 feet AGL the PNF will call out any warning indications, or deviations, as noted below. The PF will acknowledge with “Correcting”. If the PF does not respond and the deviation continues, the PNF will repeat the call. If the PF still does not respond or the deviation remains uncorrected, the PNF will take control of the aircraft following the second failure to respond by the PF. The change of control will be announced by the PNF stating, “My airplane”.

**PRECISION APPROACH**

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>One dot right or left of localizer</td>
<td>Call, “One dot right” or “one dot left.”</td>
<td></td>
</tr>
<tr>
<td>One dot above glideslope, anything below glideslope</td>
<td>Call, “One dot high” or “low on glideslope.”</td>
<td></td>
</tr>
</tbody>
</table>

**NON-PRECISION APPROACH**

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOR or LOC approach: One dot right or left of course.</td>
<td>Call, “One dot right,” or “One dot left.”</td>
<td></td>
</tr>
<tr>
<td>NBD Approach: ±5º right or left of desired bearing. (Maximum deviation allowed ±10º)</td>
<td>Call actual deviation, “___º right,” or “___º left.”</td>
<td></td>
</tr>
</tbody>
</table>

**VISUAL APPROACH SLOPE INDICATOR (VASI)**
<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above glidepath or below glidepath.</td>
<td></td>
<td>Call, “Above glidepath,” or “Below glidepath.”</td>
</tr>
<tr>
<td><strong>APPROACH SPEED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task/Initiation Cue</td>
<td>PF</td>
<td>PNF</td>
</tr>
<tr>
<td>Vref to Vref +10kts.</td>
<td></td>
<td>No calls.</td>
</tr>
<tr>
<td>Speed greater than Vref +10kts or any speed below Vref.</td>
<td></td>
<td>Call actual deviation relative to Vref. E.g. “Vref plus ___ kts”, or “Vref minus ___ kts.”</td>
</tr>
<tr>
<td><strong>VERTICAL SPEED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task/Initiation Cue</td>
<td>PF</td>
<td>PNF</td>
</tr>
<tr>
<td>Sink rate exceeds 1000 feet per minute without corrective action initiated by PF.</td>
<td></td>
<td>Call, “Sink rate.”</td>
</tr>
<tr>
<td><strong>MISSED APPROACH PROCEDURE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task/Initiation Cue</td>
<td>PF</td>
<td>PNF</td>
</tr>
<tr>
<td>MAP and landing requirements not met, i.e. did not break out.</td>
<td></td>
<td>Call, “Go around.”</td>
</tr>
<tr>
<td>PF calls, “Going around.”</td>
<td>Immediately apply maximum power and rotate to Go-Around pitch attitude.</td>
<td>Select requested flap setting. Call, “Flaps ___° selected.” Monitor and call, “Flaps ___° indicated.”</td>
</tr>
<tr>
<td>During pitch attitude change, call for flap retraction, as per aircraft AFM.</td>
<td>Call, “Flaps ___°”</td>
<td>Call, “Flaps ___°”</td>
</tr>
<tr>
<td>Positive rate of climb established</td>
<td></td>
<td>Call, “Positive rate.”</td>
</tr>
<tr>
<td>PNF calls, “Positive rate.”</td>
<td>Verify positive rate.</td>
<td>Select gear up.</td>
</tr>
<tr>
<td>PNF calls, “Gear indicated up.”</td>
<td>Call, “Gear up.”</td>
<td>Call, “Gear selected up.”</td>
</tr>
<tr>
<td>State initial heading and altitude of missed approach procedure (published or as cleared by ATC).</td>
<td>Verify PF altitude and heading callout. Call, “Check.” Verify that missed approach altitude is set in the altitude alerter. Select the Nav source as directed/briefed by PF (FMS, VOR, etc.).</td>
<td>Monitor and call, “Gear indicated up.”</td>
</tr>
<tr>
<td>Call, “After Takeoff check” when conditions permit.</td>
<td></td>
<td>Communicate with ATC. Complete After Takeoff check.</td>
</tr>
</tbody>
</table>

NOTE: The PNFs’ primary responsibility during execution of the missed approach procedure shall be to assist the PF and to monitor the aircraft. ATC communications should be accomplished as soon as practical, but should not interfere with this primary responsibility.
LANDING ROLL

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft on the ground</td>
<td>Activate spoilers and thrust.</td>
<td>Call, “Spoilers deployed, two reverser(s),” as applicable. Call, “Reverser(s) deployed,” as applicable.</td>
</tr>
<tr>
<td>At 70 KIAS</td>
<td></td>
<td>Call, “70 knots.”</td>
</tr>
<tr>
<td>PNF calls, “70 knots”</td>
<td>Begin stowing of reverser(s) per AFM.</td>
<td>Monitor Stowing</td>
</tr>
</tbody>
</table>

AFTER LANDING CHECK

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear of active runway or upon completion of a 180º turn.</td>
<td>Call, “After Landing check.”</td>
<td>Complete After Landing checklist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Call, “After Landing check complete.”</td>
</tr>
</tbody>
</table>

SHUTDOWN CHECK

<table>
<thead>
<tr>
<th>Task/Initiation Cue</th>
<th>PF</th>
<th>PNF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Call, “Shutdown check complete.”</td>
</tr>
</tbody>
</table>

POST-FLIGHT CHECK (PILOT)

If a post-flight inspection will not be accomplished by Department maintenance personnel after the completion of the last flight of the day, the Trip Captain, or designee, shall conduct a walk-around check of the aircraft, noting any oil or fuel leaks, abnormal wear or damage to the aircraft. Any discrepancies found during this walk-around are to be listed in the AML. The Trip Captain will notify Maintenance if there is any question as to the airworthiness status of the aircraft.

FLIGHT CREW DEBRIEFINGS

In order to continuously evaluate and improve Department flight operations procedures and enhance interpersonal skills, crewmembers should conduct post-flight debriefings after each flight. The debriefings should include all crewmembers of the flight, as practical, and be discussed from the self-discovery perspective, i.e. “I think I could have performed better during that high workload situation by distributing tasks more evenly.”

STANDARDIZATION FLIGHTS (PILOTS)

Standardization flights will be conducted by Department Standardization Pilots in order to provide a method to ensure that the Program is being followed in day-to-day operations and to constantly evaluate the program.

Each Department pilot will receive at least one standardization flight at intervals of approximately six months. These intervals shall not exceed eight months. If the pilot is qualified, current, and assigned to more than one type aircraft, the six month standardization flight will alternate between types. The minimum number of standardization flights per 12 month period, per aircraft, shall be one.

Standardization flights may be conducted during normal passenger carrying flights. No abnormal or emergency procedures will be required as part of the flight. These flights will involve routine practices and standard operating procedures described herein and in the Company Pilot’s Handbook for the subject aircraft.

The Standardization Pilot will act as an observer during the flight and will not be considered as an assigned flight crewmember for the purpose of the flight.
RESULTS OF STANDARDIZATION FLIGHTS (PILOTS)
The Standardization Pilot will use a Company “Pilot-Standardization Flight Worksheet” to conduct the evaluation. This
document will be utilized as the controlling document for the flight (the worksheet will be destroyed at the conclusion
of the crew’s debriefing).

Crewmembers that are found to be deficient will be advised of the specific deficiencies during post-flight debriefing
unless, in the opinion of the standardization pilot, the deficiency directly affects the operational safety of the flight. If
this is deemed to be the case, the standardization pilot will advise the flight crew of the deficiency immediately upon
discovery.

In the remote case that the pilot(s) are unwilling or unable to perform their duties in accordance with the FAR, the
AFM, the Department SOP’s, or this Manual, they will be advised of this. If the situation cannot be resolved at the
local level, to the satisfaction of the Standardization Pilot, the flight will not depart, or if already airborne, will not
proceed beyond the next point of landing.

In this event, the Standardization Pilot will contact the [Position Title] as soon as practical, for resolution of the
situation. The [Position title] will determine the proper course of action to be taken from that point.

Successful completion of a standardization flight will be recorded for each individual on an applicable Standardization
Flight Form. These forms will be forwarded to the [Position Title] for review, and retained in the employees training
file.

STANDARDIZATION FLIGHTS (FLIGHT ATTENDANTS)
Flight attendant standardization flights will be conducted by the Lead Flight Attendant, or a person designated by the
[Position title], in order to provide a method to ensure that Department policies and procedures are being complied
with. Each flight attendant will receive, at least, one standardization flight every twelve months.

Any performance area observed to be unsatisfactory during a standardization flight will be discussed with the
crewmember during post-flight debriefing unless, in the opinion of the evaluator, the deficiency directly affects the
operational safety of the flight. If this is deemed to be the case, the evaluator will advise the crewmember of the
deficiency immediately upon discovery.

In the remote case that the flight attendant is unwilling or unable to perform their duties in accordance with the
Department Policy, the evaluator shall contact the individuals’ supervisor to discuss the situation further.

Successful completion of a standardization flight will be recorded for each individual on the applicable
Standardization Flight Form. This form will be forwarded to the [Position Title] for review, retained in the employees
training file.

INTERNATIONAL PROCEDURES
REGULATORY COMPLIANCE ON INTERNATIONAL FLIGHTS. When conducting international flights, pilots
of Company aircraft must adhere to the US Federal Aviation Regulations, ICAO rules, and the regulations of the
countries in which they land or over-fly.

Flight crews must be familiar with and comply with relevant laws, regulations, and procedures of the host country
where operations are to be conducted. Where differences exist between the US Federal Aviation Regulations, ICAO
rules, and foreign regulations, the most restrictive of these regulations will apply.

Flight regulations for oceanic operations and special use airspace, including flight in MNPS and RVSM airspace, can
be found specifically in Annex 2, ICAO Rules of the Air and Advisory Circular AC 91-70.

If a deviation in an emergency situation violates local regulations or procedures, the PIC will notify the appropriate
local officials without delay. If required by the state where the incident occurs, the PIC shall submit a written report on
any such violations to the appropriate authority in that state.

CREW QUALIFICATIONS AND TRAINING. All flight crew members who fly international flights shall attend an
International Procedures course approved by the [Position Title] prior to their first international flight.

For a flight crewmember to be considered qualified for international operations that flight crewmember must be
knowledgeable in the following:
1. ICAO operational rules and regulations.
2. ICAO measurement standard.
3. Use of oceanic flight planning charts.
4. Sources and contents of international flight publications.
5. Itinerary planning.
7. Route planning within special use airspace where flights are to be conducted.
8. International en route and terminal procedures that may be different from US procedures.
9. Long range, air-to-ground communications procedures.
10. Structure of special use airspace where operations are to be conducted.
11. Air traffic clearances.
12. International meteorology, including significant weather charts, prognostic charts, tropopause charts and TAF’s.
13. Specific en route navigation procedures for each type of navigation equipment required in special use airspace.
14. Emergency procedures, including use of required emergency equipment, search and rescue techniques, navigation equipment failure techniques, and communication failure techniques.
15. Proper contingencies for emergencies in special use airspace.
16. Wet ditching and water survival procedures.

REQUIRED DOCUMENTS FOR INTERNATIONAL OPERATIONS. It is the PIC’s sole responsibility to ensure all required documentation is up to date on:

- MNPS/RVSM/RNP-10 Letter of authorization.
- Aviation Insurance Policies.
- Mexican Insurance Policy.
- Noise certificate.
- Customs overflight permit.

This is in addition to all other documentation required on board the aircraft by FARs and this Manual.

REQUIRED EQUIPMENT FOR INTERNATIONAL FLIGHTS. The following equipment is required on all international flights:

- Emergency medical kits.
- Survival equipment required for trip (i.e., polar, maritime, act.) as required by FAR 91.509.
- Radio equipment as required by FAR 91.511.
- Equipment as required by the route flown and/or the country overflown.
TRIP PLANING. All international trip preparation is the responsibility of the Trip Captain. The Trip Captain shall assign flight crewmembers planning duties as deemed fit. The Trip Captain shall keep all crewmembers informed of the status of the flight planning process. The use of outside planning and weather agencies will be used at the Trip Captain’s discretion.

PERMITS AND ENTRY REQUIREMENTS. When operating Department aircraft across international boarders or in international airspace, the Trip Captain will insure that the crew and passengers are in full compliance with each country’s passport, visa, aircraft entry and health requirements prior to entry. Confirmation of overflight or of landing must be obtained in writing prior to the planned flight.

INTERNATIONAL NAVIGATION CHARTS. Prior to departure on an international flight, the Trip Captain will ensure that an up to date coverage of all required navigation charts, including SID's, en route, STAR’s, terminal and hi and lo altitude charts are on the aircraft. The International Flight Information Manual and the FAA International Notices to Airmen will be available prior to flight.

TRIP BRIEFING. As with all domestic flights, prior to an international flight the Trip Captain will have a preflight briefing with the flight crew. In addition to a standard briefing, the crew will also discuss:

1. Itinerary.
2. Required permits.
3. All required documents.
4. Destination and alternate topography features.
5. Destination approach facilities.
6. Possible alternate airports.
7. CFIT risk assessment.
8. Handling arrangements.
10. Security need and arrangements.
11. Inspection of required equipment.

NOTAM’s, TRACK MESSAGES AND FLIGHT PLANS. Prior to any international flight the Trip Captain will assure that international NOTAM’s and Track messages are requested from and received from approved Flight Planning and Weather Services, International Flight Service Stations (IFSS) or airport meteorological stations (MET).

A copy of each flight plan will be on the aircraft prior to flight.