4 Operational Control and Flight Planning

4.1 Operational Control System

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

4.1.1 General Description

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

a. Receive trip request

b. Ensure adequate trip details are listed

c. Determine aircraft and flight crew availability

d. Obtain Director of Aviation approval (if needed)

e. Enter into scheduling system

f. Coordinate relevant details with the Pilot in Command (PIC)

4.1.2 Flight Following and Flight Watch

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

a. The passenger list on the Trip Sheet will be the basis for changes. Any changes in the passenger list will be communicated in terms of “add (name) to” and/or “delete (name)” from this list

b. Changes may be communicated by the most expeditious means available as long as they are sent prior to departure

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

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

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

4.2 Responsibilities and Authorities

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

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

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

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

and NX6 3.6.2.2]

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

A flight will be considered released when the PIC has:

a. Determined that the flight can be conducted in accordance with FAA regulations and ICAO standards

b. Reviewed and understands applicable laws, regulations, and procedures pertinent to the performance of his/her duties, in the areas to be traversed, the airport to be used, and the air navigation facilities relating to the trip

c. Ensured that crewmembers are familiar with information needed to perform their duties

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

that required current equipment, documents, and manuals are

onboard the aircraft, These include:

Aeronautical Charts

Aeronautical Information Publications

Aircraft Certificate of Airworthiness

Aircraft Certificate of Registration

Aircraft Flight Logbook

AFM COM

Aircraft MEL

Aircraft Noise Certification

Appropriate Letters of Authorization

Emergency Response Program

Fuel Credit Cards

Insurance Certificates

Intercept Procedures

Overflight Waivers

Radio Telephone License or Permit

e. Confirmed that required aircraft maintenance has been completed, the aircraft Certificate of Airworthiness is valid, and sufficient time remains on the aircraft to complete the trip for which the aircraft is being released before the next required maintenance is due

f. Confirmed that the aircraft is equipped with the equipment required by the state and airspace in which the flight is conducted

g. Determined that meteorological conditions are such that the flight can be conducted safely and in accordance with the CFRs

h. Confirmed that the essential information concerning the search and rescue services in the area over which the aircraft will be flown is available on board the aircraft such as the number, color and type of life rafts, life jackets and pyrotechnic, emergency medical supplies and frequencies of the emergency radio equipment

4.3 Flight Planning

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

3.4.1, and NX6 3.4.3.3]

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

4.3.1 Flight Plans

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

a. Instrument Flight Rules (IFR): IFR flight plans will be filed for passenger and special flights, and, whenever possible, for other operations

b. Visual Flight Rules (VFR): Flight plans may be used at the PIC’s discretion for local area training or maintenance check flights, when VFR conditions are better suited for the mission. VFR night is not authorized

4.3.1.1 Flight Planning and Preflight Requirements

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

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

4.3.1.2 Flight Planning

[NX6 2.2.1 and NX6 3.4.1]

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

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

The Company will maintain these reference materials:

a. Code of Federal Regulations

b. Aeronautical Information Manual

c. ICAO standards

d. Acme Corp Flight Department COM

e. AFM

f. Training center manual for assigned aircraft

g. Enroute charts

h. Instrument approach plates

i. Airport and FBO directories

j. Airport PCN or equivalent calculations

4.3.2 Weather Briefings

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

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

4.3.3 Operating Weather Minima

[14 CFR § 91.155 and 91.175]

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

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

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

a. VFR: A VFR flight shall not be commenced unless current weather reports and/or forecasts indicate that weather conditions along the route and at the destination at the appropriate time will be such that the flight can be conducted in compliance with VFR. Acme Corp aircraft will not be operated VFR at night.

b. IFR: The weather minima used for IFR departures and approaches shall not be lower than the specified minimums established on the instrument departure and approach plates, unless approved by the FAA with the appropriate LOA approval for Acme Corp.

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

4.3.3.1 VFR Airport Departure

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

4.3.3.2 VFR Arrivals

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

conditions are met:

a. If a non-towered airport does not have a published and operational IAP, a suitable alternate must have been filed

b. Reported ceiling should be at least 2000 feet or sufficient to allow descent from MEA or, if off airway, from minimum vectoring altitude for the approach and landing under basic VFR visibility of at least 3 miles (14 CFR § 91.155, 91.169(c)(2). If a weather report is not available, pilots are restricted to descents to MEA (if on a published airway) or MVA only until the airport is clearly in sight and assured to remain so throughout the approach and landing. Pilots may not leave MEA or MVA until within 10 NM of the airport

c. In mountainous terrain, the ceiling should be 2000 feet above the highest terrain and the visibility should be at least 5 miles. If the weather is below these minimums, pilots should be prepared to change their destination to the filed alternate, as airport contact may not be possible from the higher of MEA or minimum vectoring altitudes. Pilots are reminded that minimum distances from clouds as specified in 14 CFR § 91.155 are required when operating VFR within this type of airspace

d. Circling approaches will not be flown at night without an operating FAA control tower, except at airports designated by the Director of Aviation. The airports currently authorized for night circling without an operating tower are:

i. KBCT - Boca Raton, FL

ii. KBED - Hanscom Field, Bedford, MA

iii. KMDW - Chicago Midway, IL

iv. KPWK - Chicago Executive, IL

4.3.3.3 Takeoff Alternate

[NX6 3.4.3.4.1.1, NX6 3.4.3.4.1.2 and NX6 3.4.3.4.1.3]

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

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

4.3.3.4 When No Destination Alternate Airport is Required

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

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

a. The duration of the flight from the departure airport, or from the point of inflight replanning, to the destination airport is such that, taking into account all meteorological conditions and operational information relevant to the flight at the estimated time of use, a reasonable certainty exists that:

i. The approach and landing may be made under visual meteorological conditions

ii. Separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure

b. The airport of intended landing is isolated and:

i. A standard instrument approach procedure is prescribed for the

airport of intended landing

ii. A point of no return has been determined

iii. A flight shall not be continued past the point of no return unless available current meteorological information indicates that the following meteorological conditions will exist at the estimated time of use:

A. A cloud base of at least 1000 ft above the minimum associated with the instrument approach procedure

B. Visibility of at least three miles or of two miles more than the minimum associated with the procedure

4.3.3.5 Destination Alternate Airport Criteria

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

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

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

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

4.3.3.6 When a Destination Alternate Airport Is Required

[14 CFR § 91.163 and 91.167]

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

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

4.3.4 Fuel Requirements

[14 CFR § 91.167]

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

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

a. The PIC shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an airport where a safe landing can be made with the planned final reserve fuel remaining upon landing

b. The use of fuel after flight commencement for purposes other than originally intended during preflight planning shall require the PIC to recalculate and, if applicable make an adjustment to the planned operation

c. The PIC shall advise ATC of a minimum fuel state by declaring “MINIMUM FUEL” when, having committed to land at a specific airport, the pilot calculates that any change to the existing clearance to that aircraft may result in landing with less than planned final reserve fuel

d. When the calculated usable fuel predicted to be available upon landing at the nearest airport where a safe landing can be made is less than the planned final reserve fuel the PIC shall declare a situation of fuel emergency by broadcasting “MAYDAY MAYDAY MAYDAY fuel.” when the calculated usable fuel predicted to be available upon landing at the nearest airport where a safe landing can be made is less than the planned final reserve fuel

4.3.4.1 IFR Fuel Flight Planning

[14 CFR § 91.167]

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

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

4.3.4.2 VFR Fuel Flight Planning

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

3.4.3.5.3 and NX6 3.4.3.6.1]

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

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

b. VFR flight at night is prohibited

4.3.4.3 Additional Fuel Computations

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

3.4.3.5.2 and NX6 3.4.3.5.3]

In addition, sufficient fuel shall be provided for:

a. Taxiing and foreseeable delays prior to takeoff

b. Meteorological conditions

c. Foreseeable air traffic routings and traffic delays

d. Landing at a suitable airport in the event of loss of cabin pressurization or failure of any engine at the most critical point during the flight

e. Any other foreseeable conditions that could delay the landing of the aircraft

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

4.3.5 Takeoff and Landing Distance Requirements

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

Part 3 NX6 3.5.2.5]

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

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

a. Weight

b. Operating procedures

c. Pressure altitude appropriate to the elevation of the airport

d. Runway slope

e. Ambient temperature

f. Wind

g. Surface condition of the runway at the expected time of use, i.e. presence of slush, water and/or ice).

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

4.3.5.1 Runway Requirement

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

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

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

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

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

4.3.5.2 Runway Conditions

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

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

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

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

4.3.5.3 Takeoff Performance

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

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

a. Aircraft weight and configuration

b. Runway elevation and surface conditions

c. Temperature and wind conditions

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

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

4.3.6 Oxygen Supply Requirements

[14 CFR § 91.211]

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

3.4.4.2.1]

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

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

4.3.6.1 Unpressurized Aircraft

[14 CFR § 91.211]

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

3.6.3.5.2 and NX6 3.6.3.5.3]

Acme Corp Flight Department does not operate unpressurized aircraft.

4.3.6.2 Pressurized Aircraft

[14 CFR § 91.211]

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

3.4.4.2.2, NX6 3.6.3.5.2 and NX6 3.6.3.5.3]

The requirements to operate pressurized aircraft are as follows:

a. At flight altitudes above FL250, unless at least a ten minute supply of supplemental oxygen is available for each occupant of the aircraft for use in the event that a descent is necessitated by loss of cabin pressurization

b. At flight altitudes above FL350, one pilot at the controls of the airplane must wear and use an oxygen mask that is secured and sealed and that either supplies oxygen at times or automatically supplies oxygen whenever the cabin pressure altitude of the airplane exceeds 14,000 ft

c. If for any reason at any time it is necessary for one pilot to leave the controls of the aircraft when operating at flight altitudes above FL350, the remaining pilot at the controls shall put on and use an oxygen mask until the other pilot has returned to that crewmember’s station

4.4 Reduced Vertical Separation Minima Planning

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

NX6 2.5.2.11]

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

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

a. Verify that the aircraft is approved for RVSM operations

b. Annotate the flight plan to be filed with the air traffic service provider to show that the aircraft and operator are approved for RVSM operations

c. Check minimum equipment requirements pertaining to height keeping systems

d. Height monitoring programs will be completed for Acme Corp Flight Department every two years or 1000 flight hours, whichever is longer

4.4.1 International Operations

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

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

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

For international operations the Chief Pilot will ensure that:

a. The aircraft requested is appropriate to the operation to be conducted per Acme Corp’s LOAs

b. Flight crewmembers have received initial or recurrent training on international flight operations within the past 24 months as documented in their training folders

c. Crewmembers assigned for foreign flights have met the passport, immunization, and experience requirements

d. Aircraft equipment required for operations in areas designated as special navigation airspace is installed and operating properly

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

4.4.1.1 Computerized Flight Plan – Master Document

[NX6 2.8.2.1, NX6 2.8.2.2, and NX6 3.4.5.4]

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

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

4.5 Special Operations Airport Checklist

 

4.6 Aircraft Weight and Balance

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

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

a. Weight and Balance calculation procedures provided in the Weight and Balance section of the Airplane Flight Manual

b. GAC Plane Balance application

c. ARINCDirect software

d. Other computerized software approved by the Director of Aviation

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

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

4.7 Airworthiness

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

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

4.7.1 MEL Deferral Procedures

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