CHAPTER 1
INTRODUCTION

PREFACE

This *Flight Operations Manual* (FOM) is one volume of the general manual required by Federal Aviation Regulations (FARs) Part 121 Subpart G. It includes instructions and information necessary for personnel involved with the operations of Federal Express aircraft to perform their duties and responsibilities with a high degree of safety.

Federal Express prepares and maintains the general manual in several separate parts as permitted by FAR 121.135(b). The following is a partial list of Federal Express publications and related operating documents prepared to meet the manual requirements of the FARs.

- Cockpit Checklists and Briefing Guides
- Aircraft Operations, Operating, or Flight Manuals
- Airport Performance Manuals
- Minimum Equipment Lists
- Jeppesen Air Navigation Manuals
- Weight and Balance Instructions and Manifests
- Flight Plan/Release (FP/R) and Weather Information

Operations conducted under these Federal Express publications and documents have been accepted or approved by the Federal Express Principal Operations Inspector (POI) as being in compliance with all pertinent regulatory source documents, including the FARs, FAA-approved airplane flight manuals, and operations specifications.

Each employee is required to be thoroughly familiar with the content of this manual as it pertains to his area of responsibility. Additionally, crew members are charged with having a good working knowledge of all regulations pertinent to the exercise of their licenses and certificates.

AUTHORITY

The information, instructions, policies, and procedures contained in this FOM are binding on all Federal Express flight operations. In some cases, the FedEx policies may be more restrictive than the FAA-issued Federal Express Operations Specifications (Ops Specs). No policy in this manual can be less restrictive than the FARs or the Ops Specs.

STANDARDIZATION

The use of standardization enhances safety and efficiency by logically assigning to different crew members responsibility for the accomplishment of required tasks. The use of standard procedures reduces the burden of planning and promotes confidence and precision within the crew. Any crew member who observes a nonstandard procedure that has not been explained shall immediately call this deviation to the attention of the other crew members. Not all eventualities can be foreseen. However, it has been well proven that the best operations occur when a high level of planning, communication, crew support, and standardization exist. It is a goal of Flight Operations to achieve a precise level of standardization that discourages unsafe practices, carelessness, and the development of individualized procedures, but not so high that operational flexibility, good judgment, and professionalism are discouraged.

AIRPLANE CONTROL

The airplane must be under the direct control of one pilot at all times. This requirement must be satisfied before conducting any other cockpit activity. The use of the autopilot does not alter this requirement; it simply replaces one means of control with another. No element of doubt must be allowed to develop as to which of the pilots is controlling the airplane.

Any uncertainty regarding the safety of an operation is to be questioned and satisfactorily resolved before that operation is conducted or continued.

At any time, during ground or flight operations, if the First Officer is controlling the airplane and the Captain becomes concerned about the airplane's flight path or ground track, the Captain must take physical control of the airplane and state "I have the airplane." The First Officer must then completely relinquish control of the airplane.

LEG SWAPPING

It has become customary in the airline industry to swap legs, that is, for the Captain and First Officer to fly alternate legs. Captains must be alert for those circumstances where a particular takeoff or landing becomes critical (due to weather, peculiarities of the departure or arrival airport or runway, or for any other critical reason), and must, when necessary, deviate from routine leg swapping and operate the critical takeoff and/or landing themselves.

FLIGHT DECK ORGANIZATION

A well-organized flight deck promotes safety by logically assigning to different crew members responsibility for the accomplishment of required tasks. Good organization makes routine of as many flight deck responsibilities as possible. This is the basic philosophy behind the design of all Federal Express Normal, Abnormal, and Emergency procedures as reflected in the respective AFMs. The division of responsibilities is designed to enable the pilot flying to concentrate on aircraft control while the other crew member(s) accomplish required tasks.

STERILE COCKPIT

No person may engage in any conversation or other activity that could distract or interfere with a flight crew member in the proper conduct of flight duties during a critical phase of flight. Critical phases of flight include all ground operations involving taxi, takeoff and landing, and all other flight operations, except cruise flight, conducted below 10,000 feet MSL (FAR 121.542).

During a critical phase of flight, crew members will perform only those duties required for the safe operation of the airplane. Duties such as ON/OFF reports, block-out information, filling out crew flight logs and related records are not required for the safe operation of the airplane. It is Company policy to minimize the amount of paper work in flight; however, certain information is required and must be recorded by crew members. Paper work shall not be accomplished during climb and descent below 10,000 feet unless necessary for that particular phase of flight.

Equipment not essential to flight shall not be located on the flight deck. Crew members shall keep items of loose equipment from interfering with the flight controls.

CARELESS OR RECKLESS OPERATION

No crew member may operate an aircraft on the ground or in flight in a careless or reckless manner so as to endanger equipment, life, or property of another (FAR 121.537(f)).

ABNORMAL MANEUVERS

Spectacular or acrobatic flight maneuvers in Federal Express aircraft is prohibited. All maneuvers not necessary to the safe and orderly progress of a flight shall be avoided. Normal flight operations conducted by Federal Express should not require more than a 30° angle of bank.

Except for an emergency, such as collision or terrain avoidance, no abnormal maneuvers shall be executed in Federal Express equipment. Maneuvers required during flight training or maintenance/test flights are authorized.

NOTICE OF FAA VIOLATION OR INCIDENT

Any communication received from the FAA concerning an alleged or actual flight violation or incident will be immediately forwarded to the Director of Operations or his designated representative.

FAA INSPECTIONS

FAA inspectors desiring to conduct en route inspections have first priority for the observer seats. The inspector shall present to the Captain his identification card (FAA Form 110A) and FAA Form 8430-13, Request for Access to the Airplane.

When an FAA inspector conducts a ramp check of a flight, the following rules shall apply:

- The inspector must show proper FAA identification.
- The crew must present any required documents requested by the inspector and answer any pertinent questions.
- The inspector does not have authority to prevent the flight from departing on schedule or to interfere with the conduct of normal flight duties, unless such action is justifiable on the grounds of safety of flight.
- The crew is expected to remain courteous at all times during the ramp check and, if necessary, explain the time constraints of the schedule and preflight duties to the inspector so that he is aware of the time available for completion of the ramp check

CHECK AIRMAN AUTHORITY

When a Captain-qualified Check Airman is scheduled to fly with another Captain, the following procedures apply as to who is the PIC:

- When a Check Airman is serving as an instructor or conducting initial operating experience, he is designated PIC and is shown as Captain on all required documents.
- When a Check Airman is administering a line check, the Captain is PIC. If the Check Airman deems it necessary, he may relieve the Captain from his duties and assume command of the airplane. If this authority is exercised, the Check Airman must positively and formally announce the change in command to the other crew members and he must submit a written report to the Captain's Chief Pilot. This report must be submitted as soon as practical.

RUNWAY LENGTH ✓

Operational runway length requirements will be determined from the appropriate airplane performance manual. However, the approval of the Director of Operations or his designated representative (including the Duty Officer) is required to release a flight if the available runway length is less than the following:

- B-727 — 5000 feet
- DC-10, MD-11, & B-747 — 7000 feet

AIRPORT RESCUE AND FIRE FIGHTING CAPABILITY

The recommended Airport Rescue and Fire Fighting (ARFF) capability for Federal Express flight operations is as follows.

- **Domestic** - Index A or greater. Index A accomodates aircraft up to 126 feet long, and has at least one crash truck with 500 lbs of dry chemical or Halon. ARFF indices B, C, and D indicate ARFF capability progressively greater than A.
- **International** - ICAO Airport Category 6 or greater. Category 6 accomodates aircraft up to 128 feet long, has at least 2200 gallons (8300 ltrs) water for mixing of foam and at least 500 lbs (225 kg.) of dry chemical. Categories 6 through 9 indicate capability progressively greater than 6.

When an ARFF NOTAM downgrades an airport to an ARFF capability less than the capabilities prescribed above, FedEx flight operations at that airport must be approved by the Director of Operations or his designated representative.

UNCONTROLLED AIRPORT DEPARTURE

Operations from regularly scheduled airports past the hours of tower operation, or from regularly scheduled airports without operating control towers, are permitted when the Duty Officer or Dispatcher has determined that the flight can comply with the following:

- Obtain current weather information from an approved source.
- Receive an ATC clearance via radio or telephone.
- Receive traffic advisories from a FSS or a UNICOM.
- Monitor the Common Traffic Advisory Frequency (CTAF) for taxi, takeoff and if possible, through departure from the area.

Prior to taxi and takeoff, transmit to the airport advisory facility your call sign, intentions, type of flight planned, and direction of departure.

CAUTION

All aircraft in the vicinity of the airport may not be in communication with the airport advisory facility.

VFR DEPARTURE

If it is not otherwise possible to receive an ATC clearance on the ground, the flight may depart VFR, provided (Ops Spec. B33c):

- WX is VFR, and flight remains VFR after takeoff.
- An IFR clearance is obtained as soon as possible after takeoff but no farther than 50 NM from the airport.

✓ BRIEFING THE TAKEOFF AND DEPARTURE

The Captain shall give a takeoff briefing that will include, but not be limited to, any of the following that may apply:

- Standard procedures
- Identify which pilot will fly the leg
- Takeoff runway
- ATC area departure procedures (Pilot Flying)
- Emergency return/Jeppesen Engine-out Departure Procedures
- Additional items as may be necessary for the specific takeoff such as anti-ice usage, MEL restrictions, windshear precautions, or other abnormal conditions.

After receiving both the ATIS and ATC clearance the Captain and First Officer will review the departure routing/SID to include all headings, radials, and altitude restrictions. Both pilots must have a thorough understanding of the clearance and the duties each will perform during the departure. Radios will be set for the departure so as to minimize the work load after takeoff.

TRANSPONDER REQUIREMENTS

An operative transponder is required for all operations except (FAR 91.215):

- If transponder fails in flight, immediately request ATC permission to continue through intermediate stops to ultimate destination.
- If flight is planned to operate without a transponder, regulations specify a request for deviation must be submitted to ATC at least one hour before departure. Flight Control will coordinate the request for deviation with ATC.

CLEARANCE TO START

At many high density traffic airports, flow control is exercised, and there is a requirement to obtain a clearance for engine start from ATC. These procedures are either published in the *Jeppesen Manual*, or broadcast on the ATIS. Failure to adhere to these procedures may cause unnecessary delays.

AIRCRAFT GROUND OPERATIONS

The Marshaller is responsible for the safe towing and pushback of the aircraft. The Captain has the ultimate responsibility for the safe taxi of the aircraft; however, the Marshaller shares the responsibility for safe movement of the aircraft when the Captain is following the Marshaller's signals (Appendix F — Hand Signals For Ground Operations).

If the Captain doubts that the guidance will provide safe passage, or if there is an apparent misunderstanding, the aircraft shall be stopped until safe passage is ensured.

The Marshaller communicates with the cockpit using interphone or hand signals. For night operations or in low visibility, lighted wands will be used for signaling.

If an emergency stop is required during marshalling, establish communications with Marshaller to determine circumstances. Do not resume taxiing until situation has been resolved to the satisfaction of both Captain and Marshaller.

USE OF REVERSE THRUST FOR REARWARD TAXI

Use of reverse thrust for rearward taxi (power back) is not permitted. (Ops Specs A4). However, idle reverse thrust may be used to assist the tug during slippery push back operations, provided AFM does not prohibit such use.