

**ATTACHMENT F**

**Excerpts from FedEx Flight Operations Manual (FOM)**

**(7 pages)**

## DRUG & ALCOHOL R & R PLAN

The FedEx Drug and Alcohol Rehabilitation and Recertification Plan for Flight Crewmembers (R & R Plan) is contained in Appendix H. The R & R Plan is adopted by FedEx to insure compliance with FAA Special Issuance Medical Certificate requirements (FAR 67.14 and the Federal Air Surgeon's Policy Directive, "Alcoholism and Airline Flight Crewmembers" issued November 10, 1976).

## FAA MEDICAL CERTIFICATES

Flight Crewmembers must maintain the following FAA Medical Certificates:

- Captains and MD-11/MD-10 F/Os ... First Class, renewed every 6 mos.
- All other F/Os and S/Os.....Second Class (or higher), renewed every 12 mos.

## DUTY OFFICER AUTHORIZATION

When the Duty Officer's authorization is required, that authorization is accomplished verbally. If documentation is desired, the Captain may add a pen and ink notation to the "Remarks" section of the FP/R.

## CONTROLLED FLIGHT INTO TERRAIN (CFIT)

Since the beginning of commercial jet operations, Controlled Flight Into Terrain (CFIT) has been the dominant factor for accidents resulting in airplane hull loss and fatalities. CFIT is defined by the Flight Safety Foundation (FSF) as, "An accident in which an aircraft, under the control of the crew, is flown (unintentionally) into terrain, obstacles, or water with no prior awareness on the part of the crew of the impending collision." While only 4% of an average flight is spent in the approach or landing phase, 41% of CFIT accidents occur in this time period. These accidents are classified as Approach and Landing Accidents (ALA). Another noteworthy statistic is that the CFIT/ALA rate during darkness is 3 times greater than during daylight hours making these risks particularly real for a high percentage of FedEx flights.

FSF studies concluded that AWARENESS is the first step in CFIT/ALA prevention. FedEx is developing proactive strategies to identify and counter CFIT/ALA threats. Since fall of 1999, the Flight Training and CRM Departments have been conducting "stand up" training sessions on this topic during recurrent training. This subject is being addressed to students attending Initial, Upgrade and Transition training as well.



## **FLIGHT OPERATIONS MANUAL**

Another way FedEx is enhancing awareness of CFIT/ALA dangers has been the development of quantifiable risk assessment criteria. The FedEx CRM department evaluated as many factors as possible that contribute to these types of accidents and then assigned a weighted "risk value" to each of these factors. Every airport served by FedEx trunk aircraft has now been evaluated based on these criteria and has been assigned a CFIT Risk Assessment Rating based upon its score. Depending on this score, airports may be classified as either High or Moderate risk airports. Some of the criteria used to make these determinations are as follows:

- Airport and ATC capabilities.
- Approach availability.
- Terrain in vicinity of airport.
- Availability of runway and approach lighting.
- Controller's primary language other than English.
- Absence of published departure procedures.

High and Moderate risk airports are now being identified on the Jeppesen 10-10 (salmon) pages. Efforts are also underway to present this information on the FP/R remarks section, the Engine Out Departure Procedures pages (Jeppesen 10-12 "green" pages) and on the APLC.

An additional awareness weapon in the battle against CFIT is the new CFIT Risk Assessment Tool. It is a Jeppesen sized document printed on yellow card stock with a tab to help locate it quickly. It should be placed in a convenient location for quick access such as in your trip book or FOM. It has been developed as a way for crewmembers to make their own evaluations of an airport's risk before departure or enroute as conditions change.

Side one of the Risk Assessment Tool features the Risk Matrix. This offers crewmembers the opportunity to apply specific and objective criteria directly pertinent to the flight. By evaluating each potential risk factor and adding the associated numerical values, the risk for a particular flight can be determined. For example, a combination of deferred aircraft equipment, out of service ground equipment, weather, and crew experience could turn a normally "low risk" airport into a HIGH-risk flight. Side two of the Risk Assessment Tool lists airports that have been identified as being high or moderate CFIT/ALA risks based on the criteria stated above.

Virtually all major airlines operate into airports that can be considered "high" or "moderate" risk for CFIT/ALA. The Risk Assessment Tool is intended to heighten crewmember's awareness of potential CFIT/ALA

risks based on the belief that awareness is the first line of defense in dealing with CFIT/ALA situations.

## **CREW RESOURCE MANAGEMENT (CRM)**

Crew Resource Management is an integral part of all flight operations at FedEx and is a significant contributor to a high level of flight safety. All crewmembers are expected to use these skills as part of the cockpit crew as well as with other personnel with whom they interact in the course of flight operations.

The following skills, when executed together, result in an effective use of resources by all members of the crew.

## **TEAM FORMATION & MANAGEMENT**

All crewmembers have a responsibility to establish an effective team and must do their part to ensure that it is established. The captain has full control and authority, without limitation, in operating the aircraft, and over other crewmembers and their duties during flight [FAR 121.537(d)]. As the team leader, the captain shall exercise this authority in a manner that encourages participation of all crewmembers. The captain is expected to set the proper tone for the flight. Also, each crewmember must:

- Explicitly ask for and offer inputs and feedback.
- Assure that the captain's authority and crew participation are balanced.
- Ask questions to encourage open and interactive communication.
- Manage workload assignments.
- Ensure continuous cockpit discipline, attention to task, and adherence to SOP.
- Demonstrate through personal example what behavior is expected of others.

In addition, the captain will ensure that all assigned crewmembers, including the RFO (if applicable), remain aware of any significant information on the FP/R, weather, NOTAMS, and any deferred or maintenance items affecting the flight.

## PLANNING AND BRIEFING THE APPROACH

Obtain the ATIS as early as possible. When the approach is known, each crew member shall review the approach. Once all crew members have reviewed the approach, the pilot flying will give an approach briefing in accordance with the respective CFM. If more than one approach is in progress and it is not obvious which one the flight will be assigned, it is desirable to brief the most likely approach or approaches. Brief the transition level when other than FL 180. When visual approaches are in use, brief the available instrument approach as a backup.

## LANDING RUNWAY REQUIREMENTS

Flight crews will compute the landing data using APLC for the landing runway using wet or dry performance data as appropriate. When the visibility is less than 3/4 miles or the Touchdown Zone RVR is less than 4000, use the APLC "DRY/RVR < 4000" or "WET/RVR < 4000" performance data.

### **NOTE**

Some airplanes may be allowed limited use of quick reference landing Data Cards. Consult CFM for specifics.

## RUNWAY EDGE LIGHTS

- Night landing -- Runway edge lights sufficient to define the runway edge through rollout and clearing the runway are required.
- All landings -- High intensity runway edge lights are a required component in the measuring and use of RVR. High intensity runway edge lights are required when the visibility is less than 1/2 mile.



## STABILIZED APPROACH CORRIDOR

A stabilized approach is essential for the safe operation of transport category aircraft and is mandatory for all FedEx line operations. The stabilized approach corridor begins at 500 FT AGL for those aircraft receiving a clearance for a visual approach and at 1000 FT AGL for those aircraft receiving a clearance for an instrument approach.

The stabilized approach is defined by the following requirements:

- The aircraft must have landing gear down and locked; the flaps/slats must be in the final landing configuration.
- The engines must be spooled-up and steady at the proper approach setting.
- The proper descent angle and rate of descent must be established and maintained. All available landing aids (ILS, VASI, PAPI, etc.) must be used. Non-precision approaches may require a slightly steeper angle until reaching MDA.
- Airspeed must be stable and within the range of target speed ( $\pm 5$  KTS of target). Momentary and minor deviations are only tolerated if immediate corrections are made.

The procedure and parameters listed above are not merely targets, **THEY ARE MANDATORY CONDITIONS AND LIMITS. ANY DEVIATION OCCURRING AT OR BEYOND THE BEGINNING OF THE STABILIZED APPROACH CORRIDOR REQUIRES A MANDATORY GO-AROUND.**

## GO-AROUND PHILOSOPHY

The decision to execute a go-around is both prudent and encouraged anytime the outcome of an approach or landing becomes uncertain. FedEx considers the use of the go-around under such conditions as an indication of good judgement and cockpit discipline on the part of the flightcrew.



## **FLIGHT OPERATIONS MANUAL**

### **NON-OPERATIONAL CONTROL TOWER – ARRIVALS**

Operations into airports during hours when the control tower is closed, or into airports without operating control towers, are not permitted unless the flight crew possesses briefing information describing non-tower operations for that airport.

Briefing information may be supplied as:

- Jepp Insert
- Photocopy of information placed in trip folder
- Information relayed from GOC with authority of Duty Officer

The briefing information contains the following:

- The method for obtaining current weather from an approved source.
- The Common Traffic Advisory Frequency (CTAF).
- The method for obtaining emergency services while on the ground.

After issuing an approach clearance, ATC will clear the flight to "change to advisory frequency." Immediately change to the CTAF and broadcast the flight number, aircraft type, position, type of approach in progress, and when over the final approach fix inbound (non-precision approach) or outer marker. A visual approach should include (but not limited to) a position report from 10 miles out, downwind and base leg (if appropriate), final approach and clearing the runway. Continue to broadcast aircraft position and intended actions at regular intervals until block-in. Continue to monitor the appropriate frequency (UNICOM, etc.) for reports from other pilots.

### **CAUTION**

All aircraft in the vicinity of the airport may not be monitoring the CTAF.

When a control tower is not in operation, use all resources to determine traffic. Ramp personnel are an additional source of advisories during tower off-hours.

### **ATC CLOSEOUT – NON-OPERATING CONTROL TOWER**

At airports with non-operating control towers the crew is responsible for closing the IFR flight plan with ATC.

## VFR ARRIVAL

If not otherwise possible to obtain a visual or instrument approach clearance to an airport with a non-operating control tower, the flight may cancel IFR and complete a VFR approach provided:

- Reported visibility is equal to or greater than FAR 91.155 but not lower than visibility of 3 SM (see Appx B).
- Reported ceiling of 1000 FT or greater.
- The flight must maintain basic cloud clearance as specified in FAR 91.155 (see Appx B).
- Flight is in direct communication with air/ground communication facility that provides airport traffic advisories.
- Flight is operated within 10 NM of airport or visual reference with landing surface is established and maintained throughout.
- Maintain the minimum altitude specified in FAR 91.119 and 121.657 (see Appx B).

## VFR TRAFFIC PATTERN ENTRY – NON-OPERATING CONTROL TOWER

Enter the VFR traffic pattern at an altitude of 1500 FT HAA (unless another altitude is specified). Maintain this altitude until descent is required for landing. Make all turns to the left unless that airport specifies right hand turns for a given runway [FAR 91.126 (b)(1) and 91.127(a)]. Airports requiring right hand traffic patterns for certain runways will list that information in notes on the Jeppesen airport diagram page. Without such a note, fly left hand traffic patterns.

### Straight-In Visual Approaches

#### CAUTION

Aircraft established in the designated rectangular pattern are considered to have right-of-way over aircraft conducting straight-in approaches.

Plan to be established on the extended centerline of the runway in use NO LATER than 4 NM from the runway threshold. If the landing runway is served by an ILS, the aircraft should be aligned with the runway extended centerline by the Outer Marker.