

U.S. Department of Transportation **Federal Aviation**

Administration

InFO

Information for Operators

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Flight Standards Service Washington, DC

http://www.faa.gov/other visit/aviation industry/airline operators/airline safety/info

An InFO contains valuable information for operators that should help them meet certain administrative, regulatory, or operational requirements with relatively low urgency or impact on safety.

Subject: Controlled Flight into Terrain (CFIT) Training

Purpose: This InFO addresses Controlled Flight into Terrain (CFIT) training for pilots in air carrier operations and notifies air carrier certificate holders and pilots of a comprehensive training aid entitled "Controlled Flight into Terrain (CFIT) Education and Training Aid," referred to herein as the CFIT Training Aid. In addition, this InFO has been developed in response to NTSB recommendations A-96-93 and A-96-95; and supersedes Flight Standards Information Bulletin for Air Transportation (FSAT) 99-08.

Background: On December 20, 1995, a regularly scheduled passenger flight from Miami, Florida, to Cali, Colombia, struck trees and then crashed into the side of a mountain near Buga, Colombia, in night, visual meteorological conditions, while descending into the Cali area. The airplane was destroyed, and all but four of the 163 passengers and crew on board were killed.

While the rate of CFIT accidents has been substantially reduced by the installation of ground proximity warning systems (GPWS) on transport category airplanes, not all air carrier airplanes are required to have GPWS. The cited accident and the persistence of CFIT accidents worldwide demonstrate that pilots need improved training in prevention of CFIT accidents in general, and in performance of the ground proximity escape maneuver in particular. The FAA and industry saw a need to improve CFIT training and developed a CFIT Training Aid:

A. *CFIT Training Aid distribution*. The Boeing Aircraft Company, Flight Safety Foundation, the International Civil Aviation Organization (ICAO), and the Federal Aviation Administration (FAA) have distributed the "Controlled Flight into Terrain Education and Training Aid" to each of the ICAO member states, to FAA field offices, and to many 14 Code of Federal Regulations (CFR) Parts 121 and 135 operators.

B. *CFIT Training Aid contents*. The CFIT Training Aid includes an example of a CFIT training program for pilots and an appendix containing the ground proximity escape maneuver recommended for each of the specific airplane makes and models flown by most US air carrier pilots. Manufacturers include Boeing, Airbus, Douglas, and others. A generic ground proximity escape maneuver is provided for use in respect to airplanes not shown in the appendix. In all instances maximum airplane climb performance is an essential element of the escape maneuver.

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C. *CFIT Training Aid availability*. The CFIT Training Aid is available at the FAA's public website, Flight Standards Service-Air Transportation Division Air Carrier Training and 142 Training Center Branch-Training Aids:

http://www.faa.gov/education_research/training/media/cfit/volume1/titlepg.pdf

Recommended action: Directors of safety, directors of operations and training managers need to be aware of the availability of the CFIT Training Aid and its usefulness in the operator's training program. In addition:

- A. Each operator should include in the approved manual used by the operator's pilots:
 - the ground proximity escape maneuver recommended by the manufacturer for the specific airplane flown by the pilot; or,
 - the ground proximity escape maneuver contained in documentation developed by the manufacturer, if such documentation already exists, provided that such maneuver effects maximum airplane climb performance; or,
 - in instances of airplanes for which the CFIT Training Aid does not include a specific ground proximity escape maneuver, the generic escape maneuver shown in the CFIT Training Aid.
- B. Each operator's initial and transition training program should provide simulator training in the aircraft-specific ground proximity escape maneuver recommended by the manufacturer as specified in the CFIT Training Aid or in documentation developed by the manufacturer, if such documentation already exists. If no specific maneuver is included in the CFIT Training Aid or in documentation developed by the manufacturer, the POI should ensure that the generic maneuver shown in the CFIT Training Aid is incorporated.
- C. Each operator's recurrent training should include practice in a flight simulator in the ground proximity escape maneuver at least once every 24 months.
- D. Each operator's Advanced Qualification Program (AQP) (if applicable) should include the knowledge and skill requirements for qualification training in a simulator in the ground proximity escape maneuver, as well as the frequency and interval of AQP continuing qualification training in simulators on that maneuver, shall be determined in accordance with the approved AQP methodology.

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