

# Overview for Management Table of Contents

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# Overview for Management

# 1

## 1.0 Introduction

Controlled Flight Into Terrain (CFIT) has been and continues to be the dominant reason for accidents involving airplane hull losses and fatalities. CFIT is defined as an event in which a mechanically normally functioning airplane is inadvertently flown into the ground, water, or an obstacle. Since the beginning of commercial jet operations, more than 9,000 people have died worldwide because of CFIT. ***It is imperative that the CFIT accident rate be lowered.*** This is essential because the number of commercial airplane departures is increasing greatly. If the current rate is applied to the forecast number of departures, CFIT could cause one major airline hull loss, and associated fatalities, per week by the year 2010.

The Flight Safety Foundation organized an international CFIT Task Force in 1993 that was dedicated to reducing CFIT accidents. Five teams were formed to study the causes and factors of CFIT accidents and make recommendations to prevent these accidents. The Task Force was composed of representatives from organizations that possess extensive aviation expertise: airplane manufacturers, aviation training organizations, airplane equipment manufacturers, airlines, pilot groups, and government and regulatory agencies. This document, the CFIT Education and Training Aid, is one product of the Task Force's overall effort to reduce CFIT accidents.

Because of the number of factors that contribute to CFIT accidents, the Task Force Training and Procedures Team concluded that operators must be made aware of the CFIT problem as well as trained to avoid these accidents. Therefore, this CFIT Education and Training Aid was produced for operators. However, the Task Force also recognized that in a great many CFIT accidents, systemic factors made the flight crew the final link in the accident chain of events. Thus, in order to significantly reduce CFIT accidents, existing aviation systems must also be improved. Many of these potential system improvements are addressed in Section 2, Decision Makers Guide.

The responsibility for aviation safety within a company is at the top level of management. There must be a commitment at this level to reducing CFIT accidents. This is where the safety culture is established, and this is where many of the contributing factors to a CFIT accident must be eliminated. Typically, the role of management is to ensure the survival of the company. If, in fact, the current accident rate remains unchanged and departures continue to increase, public confidence in air transportation could be lost, first in individual companies and eventually in the total industry. Furthermore, lack of public confidence and government intervention alone could place an airline company in jeopardy. It is hoped by the Task Force that when the CFIT accident problem is put in this perspective, management will be convinced to support the education and training identified in this aid as an integral part of its overall accident prevention program.

The cost of implementing the CFIT training presented in this training aid is expected to be minimal. Regardless of how operators adopt this material, a significant return is expected on funds spent on CFIT prevention. The CFIT accident rate has been greatly reduced in some areas of the world where specific CFIT training is already occurring and there is a common effort between the ground and flight infrastructures. Operators who are currently offering credible training will find the addition of these suggestions to be principally a change in emphasis rather than an overall replacement of existing training. Other operators may find that using this aid will add only slightly to their training budgets.

Effective training to improve CFIT awareness and knowledge will help eliminate CFIT accidents and incidents. This training aid, together with the accompanying video, is intended to assist all operators in creating or updating their own individual CFIT prevention training programs. Management must ensure that a viable and effective CFIT accident prevention program is in place within its organization.

## 1.1 General Goals and Objectives

Preventing CFIT is the major goal of this training aid. This goal can be accomplished by improving the knowledge and the decision making of the people who operate the aviation system. Operators and flight crews will benefit from increased knowledge and awareness of the factors involved in preventing CFIT.

Objectives in support of this goal are to:

- Educate both operational and management personnel on CFIT hazards.
- Provide specific, appropriate educational material.
- Propose an example training program that will provide a basis for individual operators to formulate training programs.
- Provide managers with an effective CFIT avoidance strategy by adoption of appropriate operating policies, procedures, and airplane equipment.

The Flight Safety Foundation has other CFIT avoidance materials available. Included are the CFIT Awareness Checklist, various videos, and other written material. (Flight Safety Foundation, 601 Madison Street, Suite 300, Alexandria, VA 22314, USA telephone: 703-739-6700, fax: 703-739-6708)

## 1.2 Documentation Overview

This CFIT Education and Training Aid includes the following sections:

### **Section One:** Overview for Management

- Provides top-level management with a concise, broad view of the document.

### **Section Two:** Decision Makers Guide

- Identifies areas where those people who govern, regulate, and run the industry can best put their efforts to prevent CFIT.

### **Section Three:** Operators Guide

- Provides the history of CFIT, along with causal factors, traps, and solutions. This section is specifically aimed at the operator end of the scale.

### **Section Four:** Example CFIT Training Program

- Provides specific academic and simulator training programs aimed at informing the flight crews of their responsibilities and duties in preventing CFIT. Appendices include ground

briefings, video script, and airplane-specific examples of the CFIT escape maneuver.

### **Section Five:** CFIT Background Material

- Contains selected readings, including the latest CFIT accident/incident information.

## 1.3 Industry Consensus

The educational material and recommendations provided in this training aid were developed by the CFIT Task Force Training and Procedures Team. Through an extensive multiple review process, the team achieved a consensus within the air transportation industry to include representatives from organizations possessing extensive aviation expertise: airplane manufacturers, aviation training organizations, airplane equipment manufacturers, airlines, pilot groups, and government and regulatory agencies. The participants in the development and/or review of this training aid include the following:

Airbus Industries  
 Airline Pilot Association  
 Air Transport Association  
 Alaska Airlines  
 AlliedSignal Corporation  
 America West Airlines  
 American Airlines  
 The Boeing Company  
 Britannia Airways  
 British Airways  
 Civil Aviation Authority—United Kingdom  
 Delta Air Lines  
 Federal Aviation Administration  
 Flight Safety Foundation  
 FlightSafety International  
 Gulfstream Aerospace  
 Honeywell Technology  
 International Air Transport Association  
 International Civil Aviation Organization  
 Intl. Federation of Airline Pilots Association  
 Japan Air Lines  
 Jeppesen-Sandersen  
 Joint Aviation Authorities—Europe  
 Lockheed Martin  
 McDonnell Douglas Corporation  
 National Business Aircraft Association  
 National Transportation Safety Board  
 Regional Aircraft Association  
 Scandinavian Airlines System  
 United Airlines  
 USAir  
 VARIG Brazilian Airlines

## 1.4 Resource Utilization

This training aid is designed for use in its current form or as a basis for operators to modify existing CFIT training programs. Operators should use both the academic and simulator training programs to achieve a well-balanced, effective CFIT training program.

For some operators, the adoption of the CFIT Education and Training Aid into their existing training programs will require little more than a shift in emphasis. For others, especially those in the process of formulating complete training programs, this training aid will readily provide the foundation for a thorough and efficient program.

The allocation of training time for CFIT within both recurrent and transition programs will vary with each operator. Integration into a typical program is expected to take up to 5 min in each of two simulator sessions and at least 0.5 hr of academic training. The academic program should precede the simulator program.

## 1.5 Conclusion

Effective training to improve CFIT knowledge and awareness will help to reduce CFIT accidents. This document and the accompanying video are intended to assist all operators in creating or updating their own individual CFIT training. Management is encouraged to take appropriate steps to ensure that a viable, effective CFIT training program is in place within its organization.