CFIT Avoidance: What can we do?

Controlled Flight Into Terrain (CFIT) accidents continue to occur in both general and commercial aviation despite enhanced technologies available in the cockpit.

Pilots and Operators: What can we do to help prevent these types of accidents?

Highlighting the experience of operators, training staff, avionics experts, and pilots who have experienced a CFIT or come too close for comfort, the FAA produced a short training video:

https://youtu.be/JBxg6hgbAr8.

Watch now to learn more about the causes and potential mitigation strategies for addressing these accidents and improving safety in the national airspace system.

FEDERAL AVIATION ADMINISTRATION

For questions, comments or concerns, please contact:

FAA Safety Team
Alaska Regional Office, 907-271-5368

FAA Aircraft Certification Office
Anchorage ACO, 907-271-2668
9-aal-anchorage-aco@faa.gov

Available Training & Simulator Resources

Surveillance and Broadcast Services
Juneau Office, 907-790-7316

Medallion Foundation
907-743-8050

CONTROLLED FLIGHT INTO TERRAIN (CFIT)

CAUSES AND MITIGATIONS

CFIT Statistics

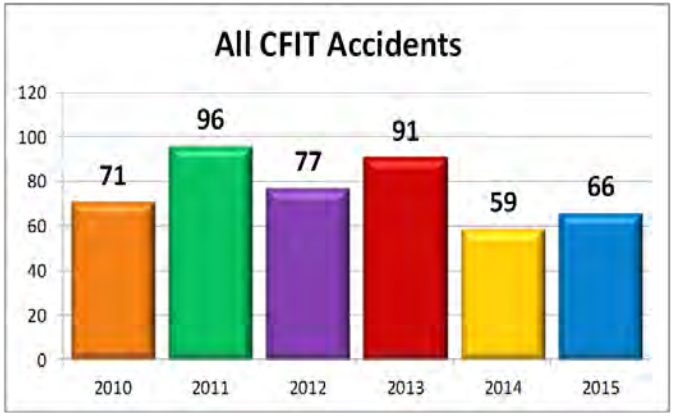
What are the top 10 leading causes of fatal general aviation (GA) accidents (2001-2013)?

1. Loss of Control Inflight
2. **Controlled Flight Into Terrain**
3. System Component Failure – Powerplant
4. Fuel Related
5. Unknown or Undetermined
6. System Component Failure – Non-Powerplant
7. Unintended Flight in IMC
8. Midair Collisions
9. Low Altitude Operations
10. No Code

CFIT Accidents: How frequent are they?

Over 460 CFIT accidents have occurred since 2010 (see chart below), with the greatest number taking place in 2011. Of those, 94 happened outside of the United States. Below are the states which had the great number of accidents during the period from 2010 to 2015:

1. California (33)
2. Alaska (26)
3. Arizona (18)
4. Texas (17)
5. Colorado (14)
6. Florida (14)
7. New York (13)
8. Pennsylvania (13)



What strategies can help prevent CFIT?

Safety is paramount. There are several strategies both before, during and after flight that can help to increase safety and prevent a CFIT event.

Before flight:

- Utilize available sources of training and simulators and continue flying to maintain proficiency with equipment and in decision-making.
- Obtain a complete and accurate weather briefing.

During flight:

- Know your equipment and honestly assess proper use.
- Recognize when to turn around and do so before you feel uneasy.
- Do not let fear of FAA enforcement override making safe decisions in an emergency.

After flight:

- Reflect on the experience -- is there something you wish you had done or could do now?
- Obtain training to maintain proficiency or improve skill with using the equipment.
- Provide feedback to the FAA if you have feedback.

In what phase of flight do CFIT accidents usually occur?

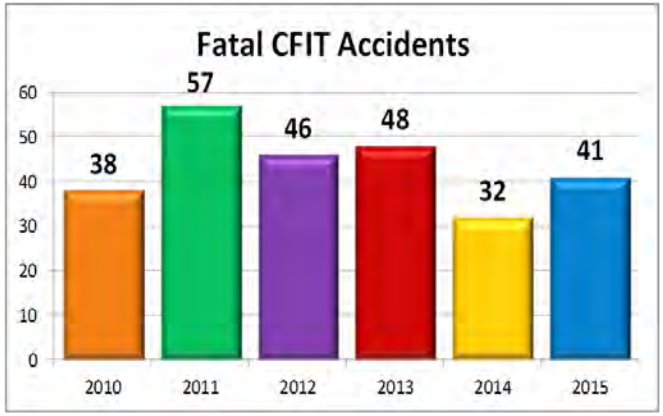
According to the FAA's CFIT, Education and Training Aid, about 25 percent of all accidents occur during the takeoff and initial climb segment of flight.

Approximately 7 percent of the accidents occur during the climb portion, while only about 4.5 percent happen during cruise. **Approximately 19.5 percent occur during descent and initial approach, and 41.4 occur during final approach and landing**.

In other words, although takeoff, initial climb, final approach, and landing represent only about 6 percent of the total flight time of a given flight, that 6 percent can be deadly.

How many CFIT accidents are fatal?

CFIT normally occurs at cruise or manuevering speed, with the result that many such accidents are fatal. Of the 460 CFIT accidents during the period from 2010 to 2015, over 57% of them (262 accidents) were fatal (see chart below). Fatalities peaked in 2011, with 57 deaths reported. Ten or more fatalities occurred in three states: California, Alaska, and Arizona.



What equipment can help prevent CFIT?

Ground proximity warning systems and the newer terrain awareness and warning systems using GPS have the potential to reduce CFIT accidents on takeoffs and landings. These systems provide one more tool for pilots to use to increase their safety margin when operating close to terrain and obstacles. However, every pilot must know the limitations of his or her database and what objects are included in the database.