GENERAL AVIATION SAFETY

OVERVIEW

Improving the safety of the world's largest and most complex General Aviation (GA) community is one of the FAA's top priorities. This community encompasses more than 275,000 diverse aircraft, including propeller-driven airplanes, amateur-built aircraft, helicopters, balloons and highly sophisticated jets. This accounts for more than 90 percent of US-registered aircraft. GA generates more than $247 billion in economic activity annually and supports an estimated 1.2 million jobs. Numerous FAA and industry programs and partnerships have significantly reduced the fatal accident rate.

ACCIDENT DATA

- The FAA and the GA industry set and achieved a goal of reducing the GA fatal accident rate by 10 percent between 2009 and 2018 and are striving to reduce it an additional one percent per year.
- 2024 saw the lowest GA fatal accident rate since the FAA began tracking it in 2009, with particular improvement among experimental and amateur-built aircraft and helicopters.
- Despite this positive trend, more must be done.

GA FATAL ACCIDENT RATES AND NUMBERS, PREVIOUS EIGHT YEARS

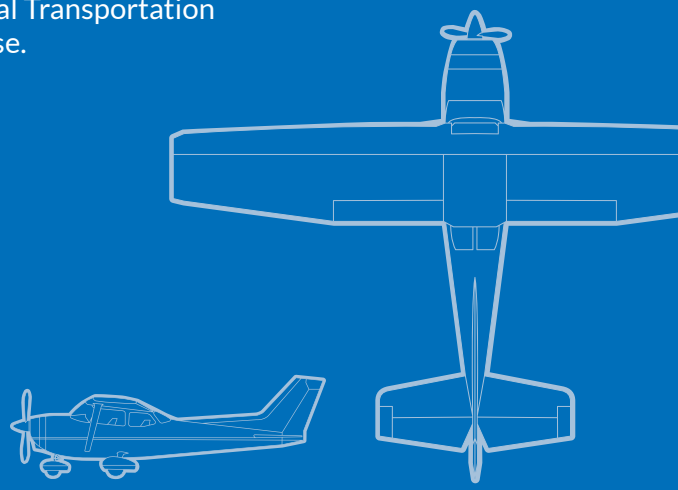
Year	Fatal Accidents per 100,000 Hours	Fatal Accidents	Fatalities
FY17	0.83	209	347
FY18	0.89	226	387
FY19	0.95	243	426
FY20	0.91	211	377
FY21	0.75	192	323
FY22	0.90	242	376
FY23	0.71	200	335
FY24 (est.)	0.68	195	337

Table 1

THE TOP 10 CAUSES OF FATAL GA ACCIDENTS 2014-2023

The FAA, in collaboration with the General Aviation Joint Safety Committee (GAJSC), identifies fatal accident risk factors using National Transportation Safety Board (NTSB) data. The list below is in order of cause.

1. **Loss of Control In Flight**
2. **Power System Component Failure**
3. **Unknown or Undetermined***
4. **Controlled Flight Into Terrain**
5. **Accidental Flight Into Bad Weather**
6. **Other****
7. **Fuel Related**
8. **Non-Power System Component Failure**
9. **Midair Collisions**
10. **Low-Altitude Operations**



** Aircraft is missing or there is not enough information to classify the occurrence.*
*** Other - Any occurrence not covered under another category.*

INDUSTRY COLLABORATION

General Aviation Joint Safety Committee (GAJSC)

The GAJSC is an FAA-industry partnership that analyzes safety data to identify new and emerging risks and develop non-regulatory measures to address accident causes. Since its formation in the mid-1990s, the GAJSC has developed 46 safety enhancements, which it promotes for voluntary adoption, mainly through its quarterly FlySafe newsletter.

Enhancements include procedures, training, and equipment installations focusing on inflight loss of control, controlled flight into terrain and powerplant failure.

United States Helicopter Safety Team (USHST)

The FAA partners with the USHST to reduce helicopter accidents. Its goal is to, by 2029, reduce commuter/on demand fatal accidents by 50 percent and GA, agricultural and external-load fatal accidents by 10 percent.

The USHST completed 16 safety enhancements that address various causes of fatal accidents and is developing five more. It promotes the safety enhancements through podcasts and a "56 Seconds to Live" video and course.

Aviation Safety Information Analysis and Sharing (ASIAS)

The FAA's ASIAS program uses safety data that operators voluntarily submit to identify risks before they result in accidents. The GA community, industry and FAA safety teams collectively analyze the data.

National General Aviation Flight Information Database (NGAFID)

Expanding upon the initial successes of ASIAS, the FAA and flight training community established the NGAFID. The NGAFID helps the flight training and broader General Aviation community explore their own flight data and look for potential risks.

SAFETY PROMOTION AND OUTREACH

FAA Safety Program

This program promotes safety principles and practices through a national FAA Safety Team (FAAST) that conducts training, outreach, special emphasis programs and education, while establishing partnerships and encouraging a safety culture in the GA community.

Its annual performance plans include targeted initiatives; outreach at major aviation events, such as the Experimental Aircraft Association's AirVenture; continuing education for pilots through the FAA's WINGS Pilot Proficiency Program and for mechanics through the Aviation Maintenance Technician Awards Program; and its online library of aviation safety courses and resources.

The FAAST, a collaboration between the FAA and GA community, completed nearly 4,000 seminars and webinars involving more than 333,000 attendees in 2024. The FAASafety.gov website has more than 800 online courses and 1,900 educational activities.

Runway Safety

The FAA partners with industry to host Runway Safety Action Team Meetings (RSAT) that address surface-safety issues and share best practices.

The FAA's From the Flight Deck video series provides pilots with actual runway approach and airport taxiway footage captured with aircraft-mounted cameras. The videos also incorporate diagrams and graphics to identify hazards such as "hot spots" where previous incidents occurred, potentially confusing intersections and the location of hold short lines.

Online pilot handbooks, which cover more than 80 airports, have a section for information that local air traffic controllers want pilots to know.

Arrival Alert Notices provide pilots with a visual depiction of an approach with a history of misalignment risk.

Fly Safe Campaign

In 2015, the FAA and GA groups launched the national Fly Safe campaign to educate the GA community on critical safety topics, including preflight procedures, loss of control, risk management, and medical fitness. The FAA promotes these efforts through monthly notices, articles in its FAA Safety Briefing magazine, social media platforms and quarterly Fly Safe newsletter. These resources also are available on the GAJSC's website.

TECHNOLOGY

Automatic Dependent Surveillance-Broadcast (ADS-B)

The FAA continues to encourage GA pilots to equip their aircraft with key technologies such as Automatic Dependent Surveillance-Broadcast (ADS-B), which uses satellite-based positioning. Pilots flying ADS-B-equipped aircraft can see graphical weather information on cockpit displays, where they are in relation to nearby aircraft, and flight information such as temporary flight restrictions and Notices to Airmen.

ADS-B also enables accurate location data for search and rescue operations, resulting in faster rescue times.

Weather Camera Program

The FAA's Weather Camera Program improves safety and efficiency by providing pilots with near real-time visual weather data at airports, mountain passes, and other strategic locations along air routes and areas with elevated accident rates. They help pilots decide whether it's safe to proceed to their destinations and whether they should take off in the first place.

The Weather Camera Program consists of 251 camera systems in Alaska, 33 in Hawaii, and 292 throughout the Continental United States in Alabama, California, Colorado and Maine. The FAA plans to add 160 new FAA weather camera sites in 39 other states by 2031.

In Alaska, weather cameras resulted in an 85 percent reduction in weather-related accidents and a 69 percent reduction in weather-related flight interruptions from 2007-2014.

Federal Aviation Administration

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