FLIGHT SAFETY FOUNDATION

2025 SAFETY REPORT

Introduction

Airspace demand and operational complexity are growing faster than the systems designed to manage them. The result is an increasingly stressed safety ecosystem, one in which high reliability can no longer be assumed simply because it has been achieved in the past. The aviation community must respond with the same discipline and shared purpose that built today's safety record: clear standards, strong oversight, robust safety management, and decisive safety leadership.

The fatal midair collision on Jan. 29, 2025, near Ronald Reagan Washington National Airport involving a PSA Airlines regional jet and a U.S. Army helicopter was a tragic reminder that mixed-use airspace can concentrate risk in ways that outpace legacy assumptions and procedures. The subsequent findings highlighted the consequences of systemic weaknesses in airspace design, safety oversight, and risk management, and the failure to convert warning signals into timely mitigations. This is a global challenge wherever military, commercial, general aviation, rotorcraft, and emerging operations converge near busy terminals.

This convergence is accelerating. Airlines continue to expand, but they are no longer the only growth driver. Business aviation demand remains strong, while helicopter operations, uncrewed systems, and new operational concepts add volume, variety, and complexity to a finite airspace system. As these users scale, pressure increases on air navigation services, infrastructure modernization, staffing pipelines, surveillance and communications interoperability, and the governance needed to integrate new entrants safely.

In this report, the Foundation is focusing attention on three critical areas that require urgent, coordinated action:

First, reduce risk in mixed-use airspace, especially in terminal environments. This requires civil–military coordination that is operationally real (not merely procedural), redesigned airspace and routes where needed, clearer separation and deconfliction standards, improved interoperability and situational awareness, and safety management that treats recurring proximity events as actionable system risk — not background noise.

Second, strengthen system capacity and resilience to keep pace with demand and complexity. Air traffic management modernization, staffing and training throughput, and surveillance/communications upgrades must be accelerated. A system operating near its limits (people, infrastructure, or procedures) has less margin to absorb variability, disruptions, and surprises.

Third, restore and reinforce the global learning cycle through disciplined compliance, mature safety management systems, and timely, transparent accident investigation and reporting aligned with International Civil Aviation Organization (ICAO) standards. Safety improves when hazards are reported, analyzed, and acted upon, and when lessons learned are shared quickly enough to prevent the next occurrence.

Flight Safety Foundation calls on regulators, air navigation service providers, airports, operators, manufacturers, and State aviation organizations to treat these three priorities as a shared agenda for 2026 planning and beyond. Safety leadership, at the executive, managerial, and front-line levels, remains the decisive factor in converting known risk into sustained risk reduction.

Commercial Airliners

Commercial airliners[1] of all types were involved in 101 accidents around the world in 2025, which is down 28 percent from 2024, when jet-, turboprop-, and piston-powered airliners suffered 140 accidents, according to data drawn from the Foundation's Aviation Safety Network (ASN) database. The number of fatal airliner accidents also declined last year — from 15 in 2024 to 12 in 2025 — but the number of fatalities rose sharply. According to ASN, the 12 fatal accidents in 2025 resulted in 420 fatalities among passengers and crew and 33 people on the ground, whereas 2024's 15 fatal accidents resulted in 268 fatalities among passengers and crew and three people on the ground.

Figure 1. All Airliner Accidents

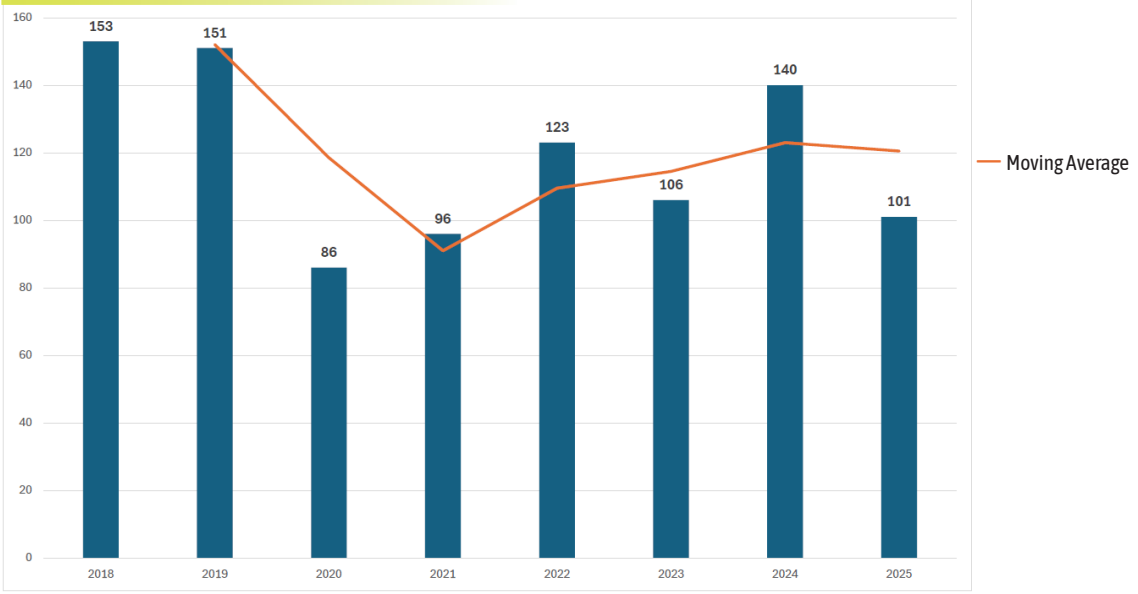
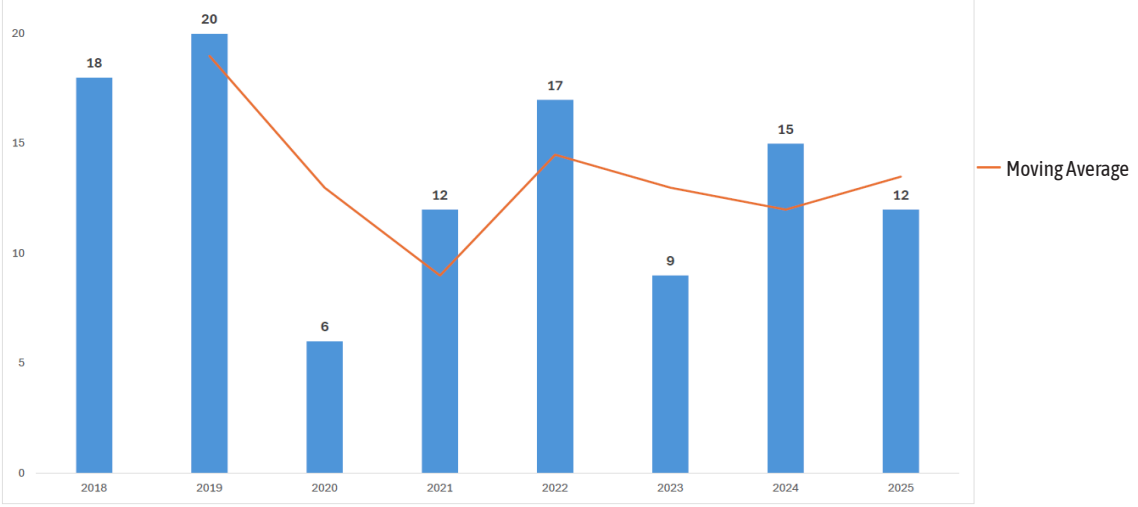


Figure 2. Airliner Fatal Accidents



[1] Flight Safety Foundation's Aviation Safety Network defines an airliner as any aircraft model certified to carry more than 14 passengers. Most of these aircraft are jet- or turboprop-powered, but the dataset includes some piston-powered aircraft, such as the Douglas DC-4 and DC-3, and Antonov An-2. These older aircraft often are used in cargo operations.

Commercial Airliners

The total number of airliner accidents[2] last year was an improvement from the average for the previous five-year period. In the five years from 2020 through 2024, commercial airliners were involved in 551 accidents, or an average of 110.2 accidents per year, of which 11.8 a year were fatal accidents. During that same period, commercial airliner accident fatalities averaged 173 per year among passengers and crew and an additional 2.2 per year among people on the ground.

The worst accident in 2025 in terms of total fatalities occurred on June 12, when an Air India Boeing 787-8 crashed soon after takeoff from Ahmedabad International Airport in India. Of the 242 people on board, only one survived. Nineteen people on the ground were also killed.

The year's two worst accidents in terms of on-the-ground fatalities were the Air India crash and the November accident involving a UPS McDonnell Douglas MD-11F, which crashed shortly after takeoff from Louisville-Muhammad Ali International Airport in Kentucky, U.S., when the left engine separated from the wing shortly after rotation. The aircraft initially climbed but did not get above 30 ft above ground level. The aircraft struck the roof of a warehouse at the southern edge of the airport. All three crewmembers aboard the aircraft and 12 people on the ground were killed in the crash.

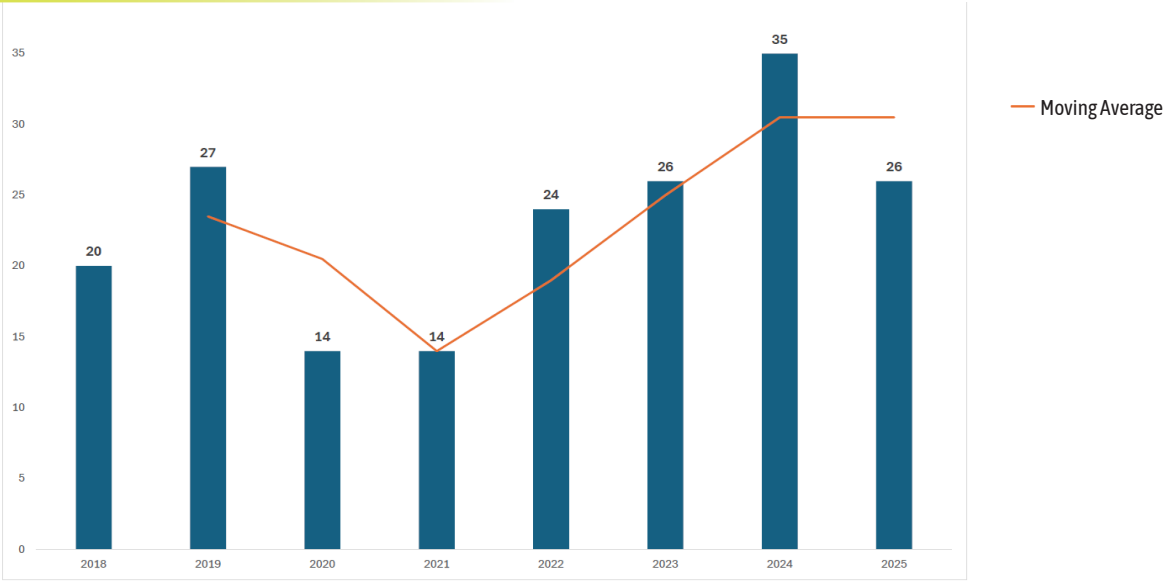
Another large loss of life accident was the Jan. 29 midair collision between a PSA Airlines Bombardier CRJ-701ER and a U.S. Army Sikorsky UH-60L Black Hawk near Ronald Reagan Washington National Airport (DCA). The CRJ, being operated as an American Eagle flight, was on approach to Runway 33 at DCA when the two aircraft collided. All 64 passengers and crew on the CRJ and the three crewmembers on the helicopter were killed in the accident.

Of the 101 total airliner accidents in 2025, 61 occurred during scheduled passenger operations, 17 during nonscheduled passenger operations, 17 during cargo operations, and the rest in unknown types of operations. Thirty occurred during the en route phase of flight, 38 during approach or landing, 20 on the ground, and 13 during takeoff or initial climb.

Occurrence Categories

The number of turbulence-related airliner accidents declined last year to 26 from 35 in 2024, but for the fourth year in a row, turbulence was the most common ICAO occurrence category cited in ASN airliner accident data. In the five year-period from 2020 through 2024, airliners were involved in an average of 22.6 turbulence-related accidents per year.

Figure 3. Turbulence Accidents

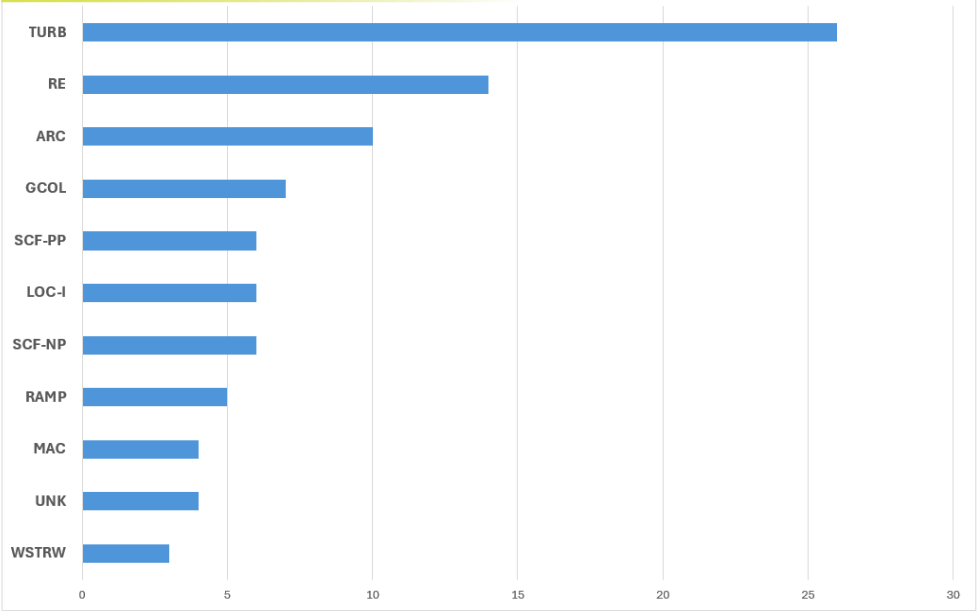


[2] The International Civil Aviation Organization (ICAO) defines an accident as an occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which a person is fatally or seriously injured as a result of being in the aircraft or in direct contact with any part of the aircraft or has direct exposure to jet blast, or the aircraft sustains serious damage or structural failure.
The complete definition is available here.

In November, the International Federation of Air Line Pilots' Associations and Flight Safety Foundation released a briefing leaflet titled "Turbulence Injury Mitigation." The briefing concluded that "[w]hile turbulence can never be entirely avoided … the best way to prevent injuries is to advise passengers to keep their seatbelts fastened at all times," regardless of whether the "fasten seatbelt" sign is illuminated. It also recommended a "strategy of avoidance" during the flight planning stage and the use of onboard tools during flight to avoid areas of possible turbulence.

In 2025, runway excursions (14), abnormal runway contact (10), and ground collisions (7) were also among the most commonly cited accident types; however, the incidences of all three accident types declined from the previous year. In addition, abnormal runway contact (ARC) and ground collision results for last year were below the annual average of the previous five years in both categories. For the 2020–2024 period, airliners were involved in an average of 15.6 ARC accidents and 10.6 ground collision accidents per year. The 14 runway excursion accidents involving airliners that occurred in 2025 were greater than the average of 13.4 per year over the previous five years.

Figure 4. 2025 Airline Accidents by ICAO Category



The number of loss of control-in flight (LOC-I) accidents, which had been trending downward the previous two years, increased in 2025 to six — five of which were fatal accidents. In March, a British Aerospace Jetstream 32 operated by Honduran carrier LANHSA crashed into the sea immediately after takeoff from Roatán-Juan Manuel Gálvez International Airport in Honduras. Twelve of the 17 occupants of the aircraft were killed.

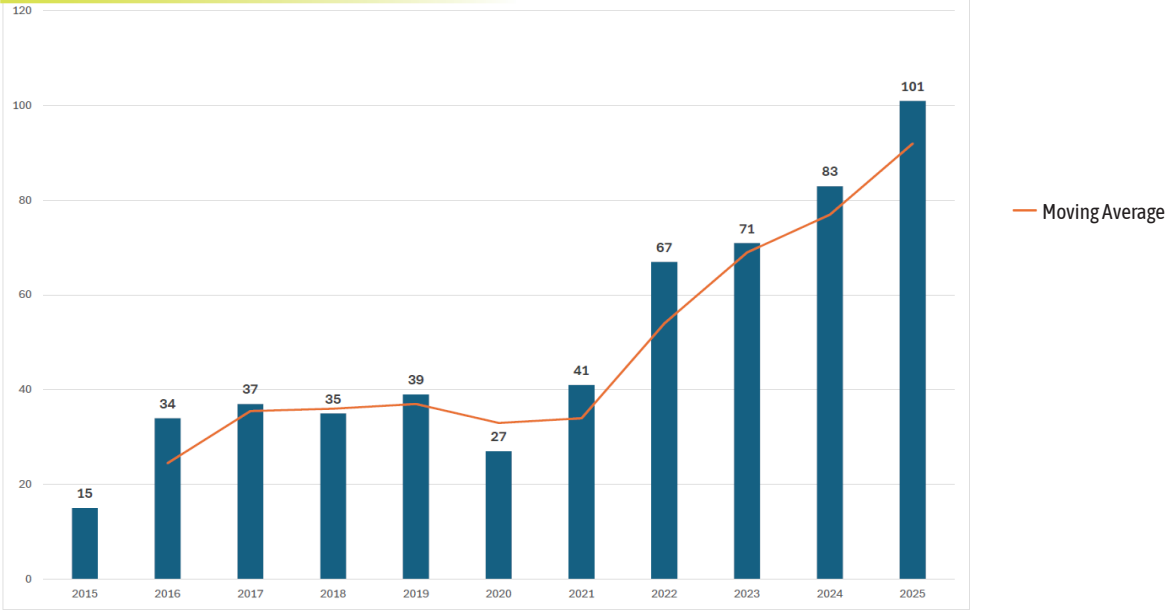
There were four midair collision–related accidents in 2025, which is greater than the total for the previous five years, when there were three (one each in 2020, 2021, and 2024), but only two of the accidents involved actual collisions. Only one of last year's midair collisions (the DCA crash) resulted in fatalities. In the other cases, a United Boeing 737 Max 8 collided with a weather balloon, resulting in minor injuries from shattered glass to the airliner's captain, but no injuries to other crew or passengers. In each of the other two events — one in the United States and one in Europe — members of the cabin crew suffered serious injuries as a result of aircraft maneuvers triggered by traffic-alert and collision avoidance system (TCAS) alerts. The events are considered accidents under the ICAO's accident definition because of the severity of the injuries suffered.

Other accident categories that saw increases in 2025 included wind shear or thunderstorm related, collision with obstacle(s) during takeoff or landing, and system component failure–powerplant.

An analysis of the ASN data also shows an increase in the number of safety events related to thermal runaway of lithium-ion batteries carried aboard passenger aircraft. According to the ASN data, which is likely not exhaustive, there were 101 such events around the world in 2025, up from 83 in 2024, including what is believed to be the first passenger aircraft hull loss accident.

On Jan. 28, an Air Busan Airbus A321, operating as Flight BX391, was preparing for departure from Busan-Gimhae (Pusan) International Airport in South Korea when a fire broke out in one of the overhead bins in the rear of the aircraft. The captain ordered an emergency evacuation, which was carried out using the emergency slides, during which three passengers sustained serious injuries and 24 minor injuries. The aircraft was gutted by flames. The accident is still under investigation, but South Korea's transport ministry said that there are indications the fire may have started because insulation inside a power bank had broken down.

Figure 5. Lithium Ion Battery Events



The number of reported lithium battery-related events has increased steadily in the past several years. In the 2020-2024 period, there were a total of 289 events, or an average of 57.8 per year, reported. The annual number has increased each year since 2020.

Last year, powerbanks were linked to 34 events, followed by e-cigarettes/vapes and cellphones at 23 events each, and the majority of events (60) occurred in the United States. Most of the events (74) occurred during the en route phase.

Over the five-year 2020-2024 period, more events were linked to e-cigarettes/vapes than any device and 245 of the 289 reported events occurred in the United States. The majority of reported events (175) occurred in the en route phase of flight, followed by 69 on ground.

Corporate Jets

Corporate jets were involved in 34 accidents in 2025, 13 of which were fatal accidents, including three that occurred in the last two weeks of December. The 13 fatal corporate jet accidents last year resulted in 57 fatalities among passengers and crew and four people on the ground. The three December fatal accidents accounted for 25 of the year's fatalities among passengers and crew. The worst accident of the year, in terms of total fatalities, was the Dec. 15 crash of a Cessna 650 Citation II that crashed while on approach to Toluca-Licenciado Adolfo López Mateos International Airport in Mexico. The two pilots and eight passengers on board were killed.

Figure 6. Corporate Jet Accidents

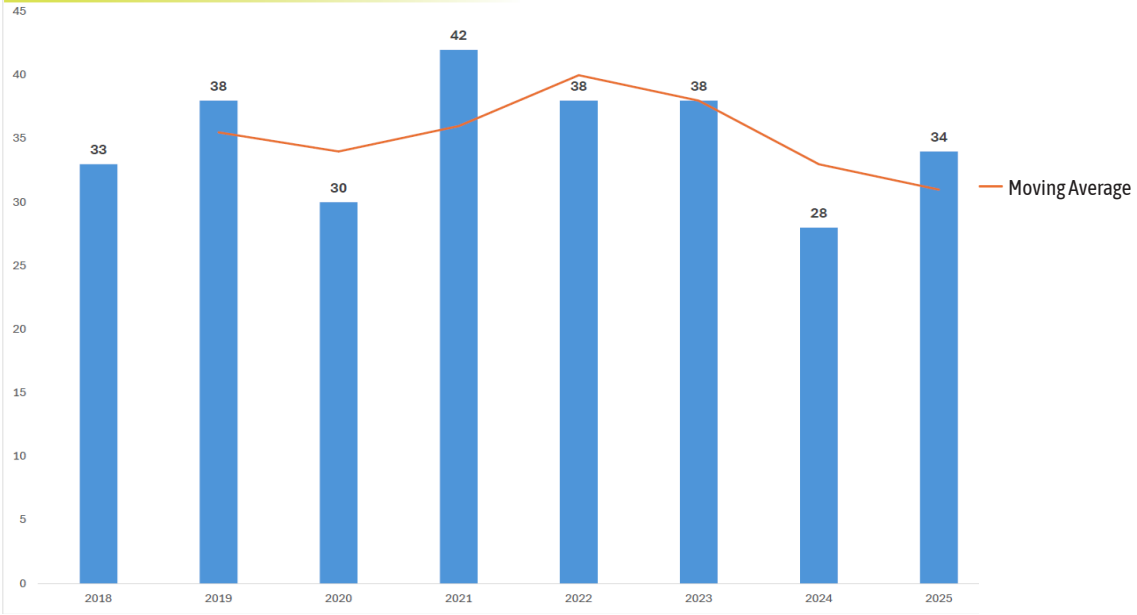
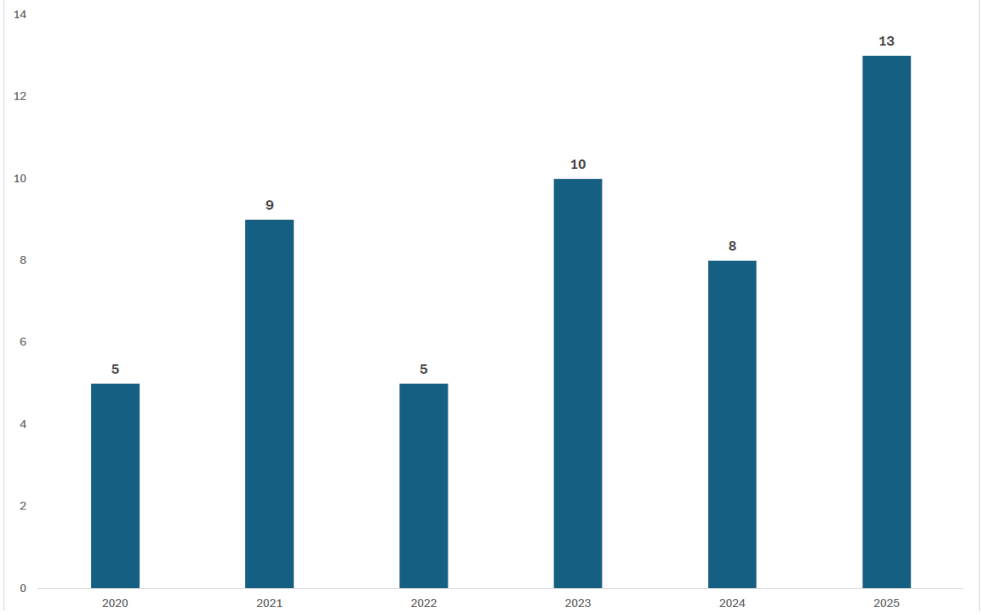


Figure 7. Corporate Jet Fatal Accidents



The total of 34 accidents is up from 28 in 2024, which was the best year since 2017, when there were 26 corporate jet accidents. In the five-year period from 2020 through 2024, corporate jets were involved in 176 accidents or an average of 35.2 accidents per year. The worst year during that period was 2021, when there were 42 accidents.

Last year was the worst year for corporate jet fatal accidents in at least the past nine years, according to ASN data, and during the five-year 2020–2024 period, corporate jets were involved in 37 fatal accidents or an average of 7.4 fatal accidents per year.

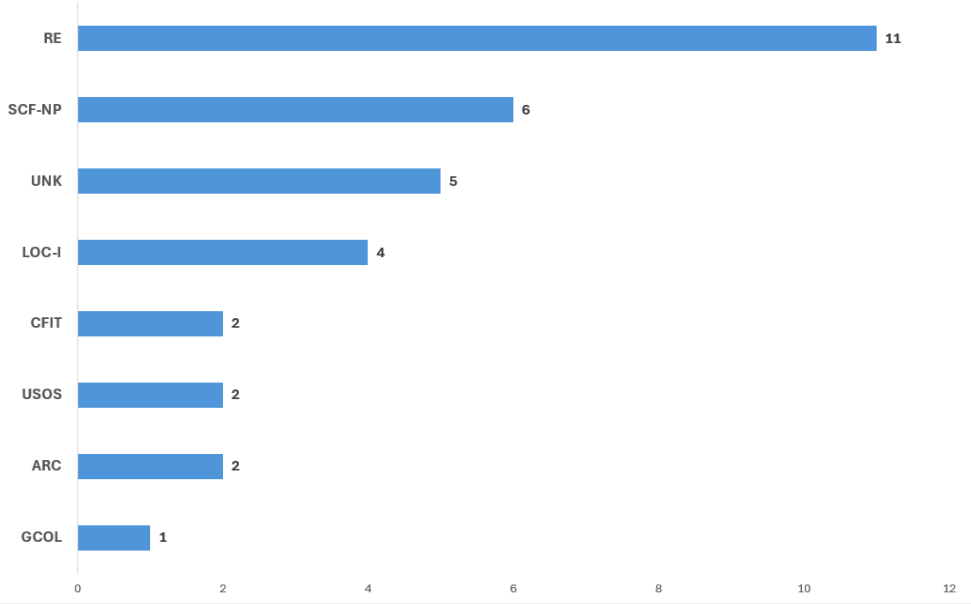
Of 2025's 13 fatal accidents, four were categorized as LOC-I and four were runway excursions. Two of the accidents were controlled flight into terrain (CFIT) and the other three were categorized as unknown.

Looking at all 34 of last year's corporate jet accidents, 20 occurred during the landing phase, with the others divided fairly evenly among the other phases of flight.

Occurrence categories

While there was some improvement in 2025, runway excursions continue to be the most frequently cited ICAO occurrence category, which makes sense given that a significant majority of corporate jet accidents occur during the landing phase. In 2025, corporate jets were involved in 12 runway excursion accidents, four of which were fatal accidents. During the five-year period 2020–2024, corporate jets were involved in 71 runway excursion accidents or an average of 14.2 per year, with the worst year being 2024, when there were 16. Of the 71 runway excursion accidents during the period, six were fatal accidents.

Figure 8. 2025 Corporate Jet Accidents by ICAO Category



Corporate Jets

After runway excursions, the next most common accident category in 2025 was system component failure–non-powerplant (SCF-NP) with six events, unknown (five), and LOC-I (four). There were also two CFIT, two ARC, and two undershoot/overshoot accidents in 2025.

During the 2020–2024 period, corporate jets were involved in an average of 4.4 LOC-I accidents, four ARC accidents, three SCF-NP accidents, 1.4 ground collision accidents, and one CFIT accident per year. During that period, there were 37 fatal accidents, and 15 of them were categorized as LOC-I.

Accident Investigations

The Foundation strongly encourages States and accident investigation authorities to conduct and complete ICAO Annex 13-compliant accident investigations for all accidents, and to make public the final investigative reports in a timely and transparent manner. According to ASN data, final accident reports have been released for about 58 percent of airline accidents that occurred from 2020 through 2024, but only for about 41 percent of fatal accidents during that period. The release of comprehensive final accident investigation reports is a critical tool in preventing like occurrences from happening in the future.

Key for abbreviations used in graphs

Figure 4. 2025 Airline Accidents by ICAO Category

ARC = Abnormal Runway Contact
GCOL = Ground Collision
LOC-I = Loss of Control – In flight
MAC = Midair Collision
RAMP = Ramp
RE = Runway Excursions
SCF-NP = System/Component Failure – Non-Powerplant
SCF-PP = System/Component Failure – Powerplant
TURB = Turbulence
UNK = Unknown
WSTRW = Wind shear or Thunderstorms

Figure 8. 2025 Corporate Jet Accidents by ICAO Category

ARC = Abnormal Runway Contact
CFIT = Controlled Flight Into Terrain
GCOL = Ground Collision
LOC-I = Loss of Control – In flight
RE = Runway Excursions
SCF-NP = System/Component Failure – Non-Powerplant
UNK = Unknown
USOS = Undershoot/Overshoot