ICAO

SAFETY

Safety Report

2026 Edition

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Note: The ICAO Regions, based on the Member States accredited to each ICAO Regional Office, are used in the report and are listed in Appendix 1. This document focuses primarily on scheduled commercial flights. The scheduled commercial flights data are based on the Official Airline Guide (OAG), combined with internal ICAO preliminary estimates.

Ensuring the Safety and Security of Every Flight

A specialized agency of the United Nations established in 1944, the International Civil Aviation Organization (ICAO), together with its 193 Member States and industry partners, has achieved over 80 years of progress in delivering a safe and secure international civil aviation system that connects the world for the benefit of all nations and peoples.

ICAO promulgates Standards and Recommended Practices (SARPs) to facilitate harmonized regulations in aviation safety, security, efficiency and environmental protection at the global level. Today, ICAO manages over 13 000 SARPs across 19 Annexes and seven Procedures for Air Navigation Services (PANS) to the Convention on International Civil Aviation (Chicago Convention), many of which continue to evolve in line with the latest developments and innovations. ICAO also serves as the primary forum for cooperation among its Member States and the aviation industry in all fields of civil aviation.

ICAO has launched its comprehensive 2026–2050 Strategic Plan, which includes Strategic Goal of *Every Flight is Safe and Secure* to achieve zero fatalities in international aviation from accidents and acts of unlawful interference. To achieve this aspiration goal in safety, the Organization continuously works to address and enhance global aviation safety through the following coordinated activities:

- policy and standardization;
- monitoring of key safety trends and performance indicators;
- specific initiatives and programmes to address safety issues; and
- implementation support.

This edition of the safety report provides accident statistics and analysis for 2025 as well as safety trends for the past five years. Results of analyses from the 2021–2025 safety reports are used as benchmarks for comparison; however, the data presented in this report may differ from earlier editions due to additional information that became available after their publication.

Contents

Executive Summary

A 2025 safety overview is provided in Figure 1 through safety indicators such as the global accident rate, global fatal accident rate, global fatality rate, number of accidents, number of fatal accidents, total fatalities and total serious injuries for scheduled commercial air transport involving aeroplanes with a maximum take-off mass (MTOM) over 5 700 kg.

Passenger (billion):	4.950
Flights (million):	38.08
Accidents:	85
Fatal accidents:	4
Fatalities:	387
Serious injuries:	143
Global accident rate:	2.23 accidents per million flight departures
Global fatal accident rate:	0.11 fatal accidents per million departures
Global Fatality rate:	78 fatalities per billion passengers
Injury rate:	29 serious injuries per billion passengers

Figure 1. | Safety Overview 2025

As indicated in Chart 1, the global passenger traffic continued to grow in 2025 with approximately 4.950 billion passengers transported worldwide, up from 4.528 billion passengers in 2024. Passenger traffic in 2025 increased by 9.3 per cent compared to 2024.

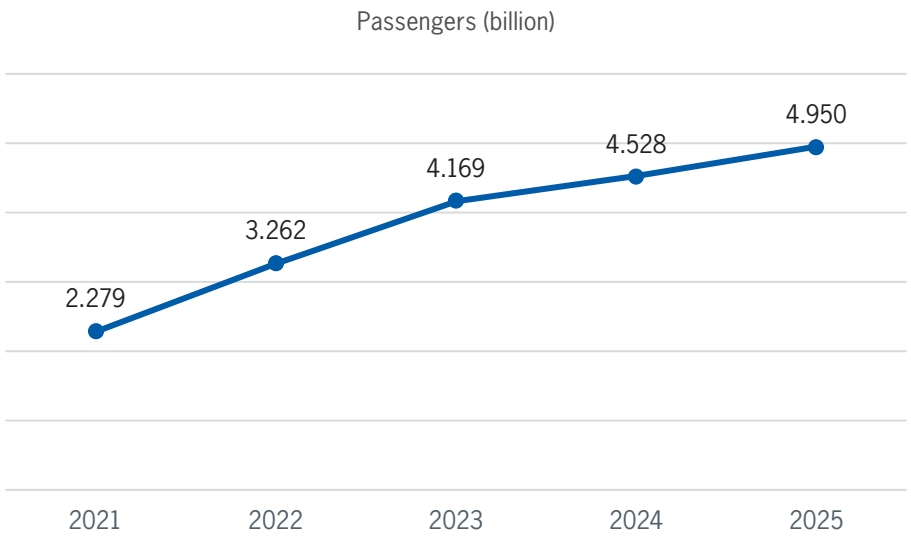


Chart 1. | Global passenger traffic (billion)

As indicated in Chart 2, the number of flight departures for scheduled commercial operations also increased by 2.7 per cent, reaching 38.08 million departures in 2025, compared to 37.09 million in 2024, although still slightly lower than the pre-pandemic level of 38.79 million in 2019.

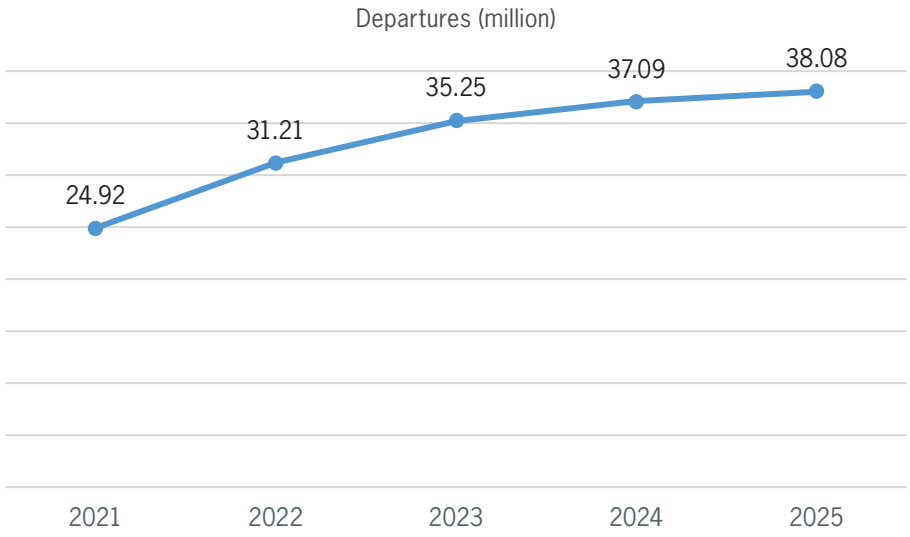


Chart 2. | Global flight departures (million)

Yearly accident statistics shown in Chart 3 indicate a decrease in both the total number of accidents and the global accident rate in 2025. From 2024 to 2025, there was a 10.5 per cent decrease in the total number of accidents, as reported by States. The global accident rate of 2.23 accidents per million departures in 2025 represents a decrease of 12.9 per cent from the 2024 rate of 2.56 accidents per million departures. As defined in ICAO Annex 13 — *Aircraft Accident and Incident Investigation,* the accidents used for these statistics were reviewed and validated by the ICAO Occurrence Validation Study Group (OVSG) using the ICAO Accident/Incident Data Reporting (ADREP) taxonomy and involved scheduled commercial air transport operations of aeroplanes with a maximum take-off mass (MTOM) over 5 700 kg.

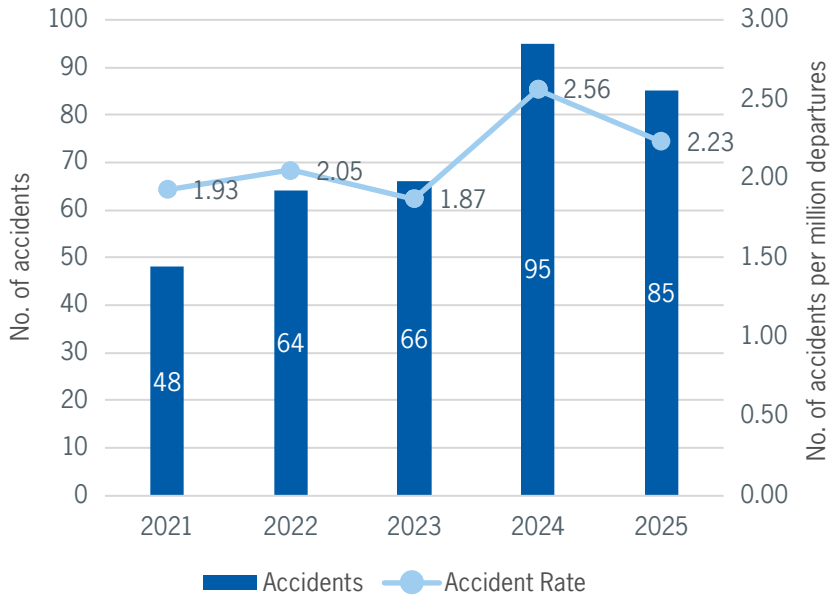


Chart 3. | Accident records: 2021–2025 scheduled commercial operations

In 2025, scheduled commercial air transport accidents resulted in 387 fatalities representing a 30.7 per cent increase from 296 in 2024, as well as a 20 per cent increase in the fatality rate, from 65 to 78 fatalities per billion passengers. The number of fatal accidents decreased from 10 in 2024 to 4 in 2025. Table 1 and Figure 2 show the number of fatal accidents and associated fatalities by ICAO Region.

Table 1. | Number of fatal accidents and fatalities by ICAO region in 2025

ICAO Region	Number of fatal accidents	Number of fatalities
Asia and Pacific (APAC)	1	260
Eastern and Southern Africa (ESAF)	Nil	Nil
Europe and North Atlantic (EUR/NAT)	1	48
Middle East (MID)	Nil	Nil
North America, Central America and Caribbean (NACC)	2	79
South America (SAM)	Nil	Nil
Western and Central Africa (WACAF)	Nil	Nil

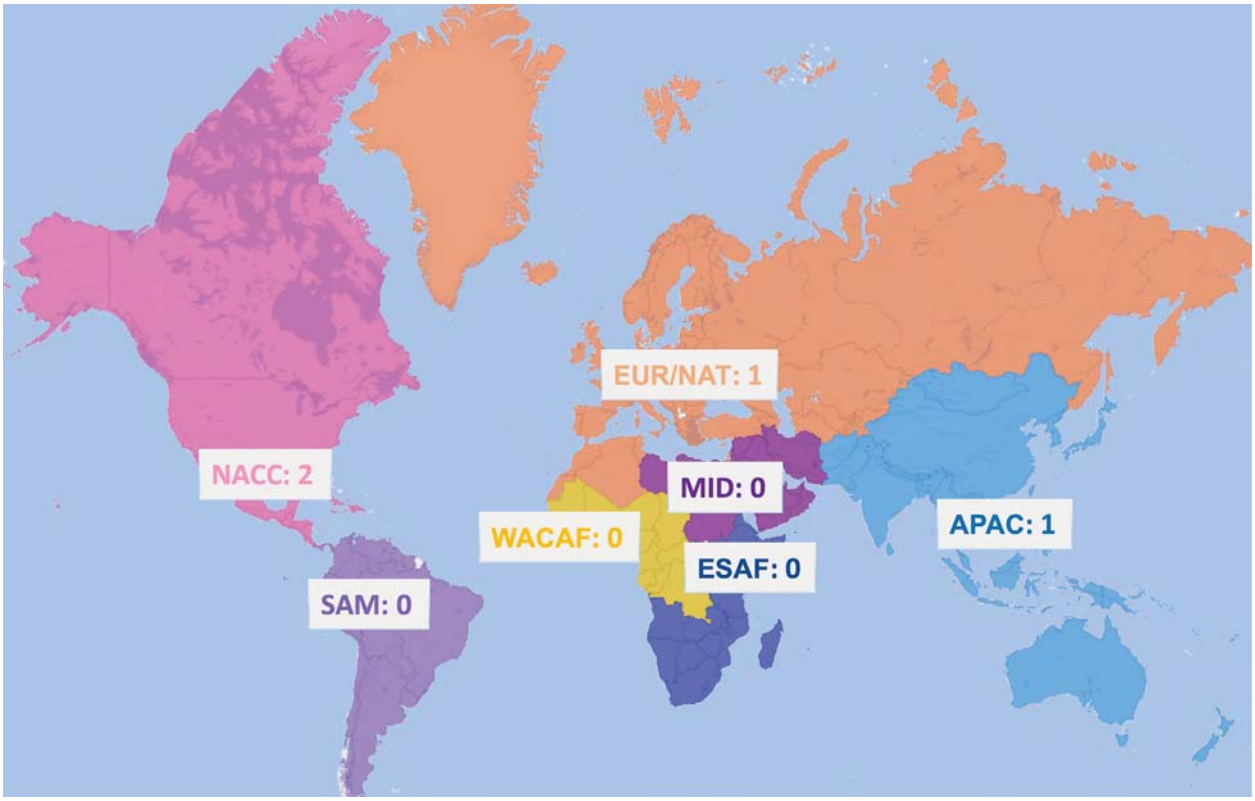


Figure 2. | Number of fatal accidents by ICAO Region in 2025

Charts 4 and 5 present data related to fatal accidents for scheduled commercial operations. Chart 6 provides a 10-year historical trend for scheduled commercial operations.

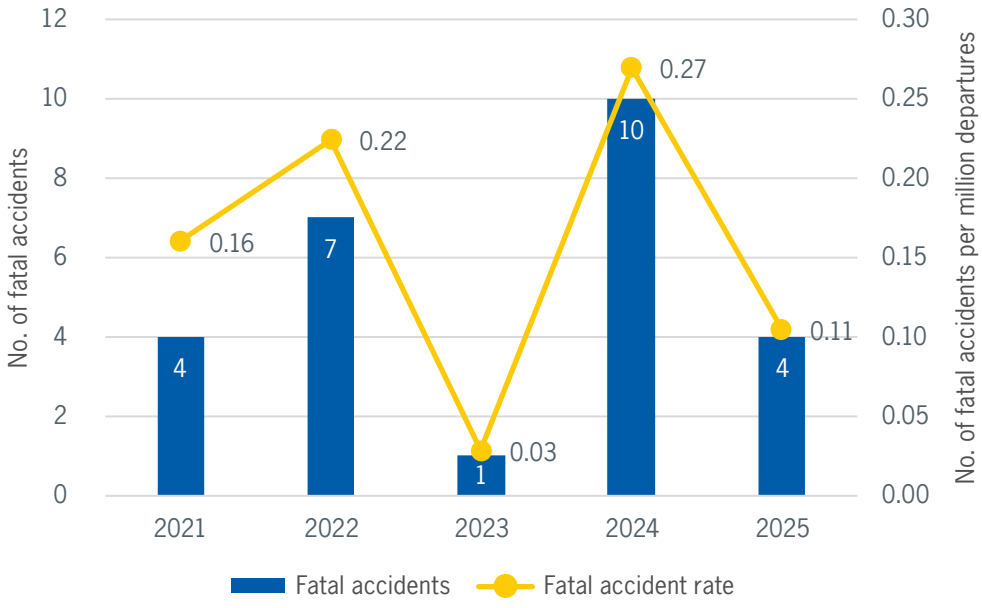


Chart 4. | Fatal accident records: 2021–2025 scheduled commercial operations

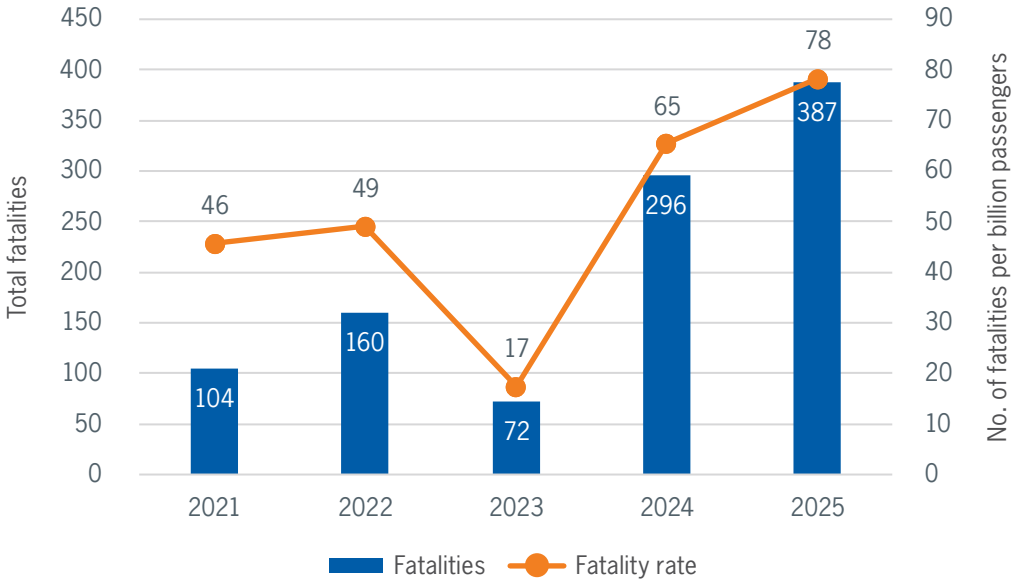


Chart 5. | Fatality records: 2021–2025 scheduled commercial operations

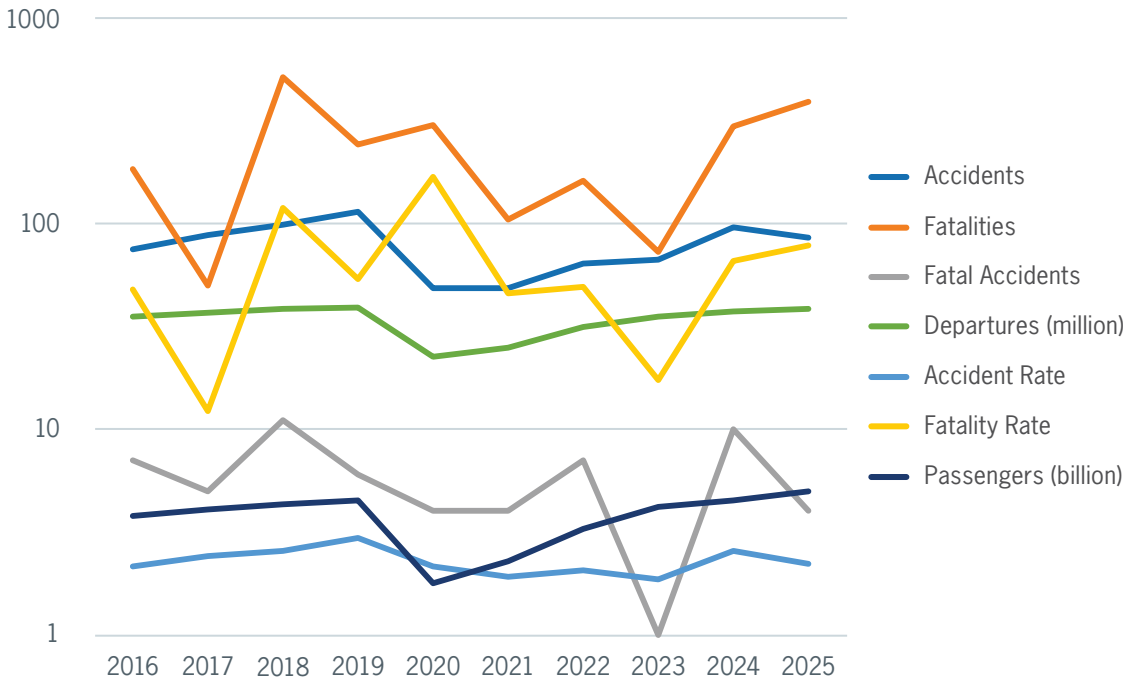


Chart 6. | Historical trends for scheduled commercial operations (2016–2025)

In response to existing and emerging trends, ICAO is working in partnership with the international aviation community to achieve the Strategic Goal of *Every Flight* is *Safe* and *Secure* through standardization, implementation support and monitoring. The 2026 edition of the Safety Report provides accident statistics and analyses for monitoring safety trends and an update to the global safety indicators for the 2021–2025 period in accordance with the ICAO Global Aviation Safety Plan (GASP).

In addition, the report presents statistics related to the runway safety global priorities as identified in the ICAO Global Runway Safety Action Plan (GRSAP). Results of analyses from the 2021–2025 safety reports are used as benchmarks for comparison. However, due to updates made during the intervening period, some minor differences may exist compared to the earlier editions.

Moreover, the report presents selected success stories on safety initiatives aimed at enhancing aviation safety at the global levels.

Safety Trends and Accident Statistics and Analysis – Scheduled Commercial Air Transport

The safety performance within the Global Aviation Safety Plan (GASP) is measured by a series of metrics as defined by the GASP indicators set in its 2026–2028 edition. Goal 1 of the GASP is to achieve a continuous reduction of operational safety risks. This reduction is pursued through a series of actions targeting the global high-risk categories of occurrences (G-HRCs). One of the targets associated with this goal (Target 1.1) calls for States, regions and industry to decrease the accident rate, globally and within each ICAO region. Indicators linked to this target are the accident rate (the number of accidents per million departures); fatal accident rate (number of fatal accidents per million departures); and the fatality rate (the number of fatalities per billion passengers carried).

Overall Safety Performance Indicator – Global Accident Rate, Global Fatal Accident Rate and Global Fatality Rate

The global accident rate, global fatal accident rate and global fatality rate provide overall indicators of safety performance for air transport operation. These indicators are based on scheduled commercial operations involving fixed-wing aeroplanes with a maximum take-off mass (MTOM) over 5 700 kg. Aircraft accidents are reviewed and validated by the ICAO Occurrence Validation Study Group (OVSG) using the definitions provided in Annex 13 – *Aircraft Accident and Incident Investigation* and the Accident/Incident Data Reporting (ADREP) taxonomy.

Data on passengers and departures are collated by ICAO and comprise scheduled commercial operations. Data on departures include the transportation of passengers, cargo and mail for remuneration. Estimates are made where data has not been provided by States, and as new data is provided to ICAO, it will be incorporated into the database. It is worth noting that this may result in slight variations in calculated rates from year to year.

Chart 7 below shows the global accident rate trend (per million departures) over the previous five years, with 2025 recording an accident rate of 2.23 accidents per million departures, representing a decrease of 10.5 per cent from the previous year.

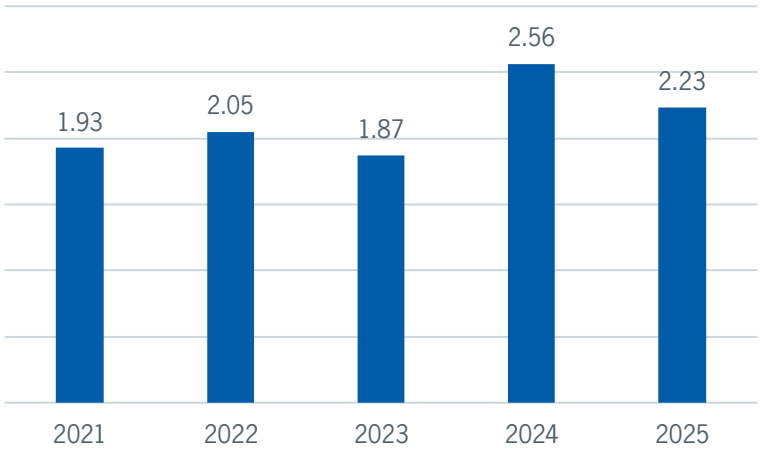


Chart 7. | Global accident rates (accidents per million departures)

Chart 8 presents the global fatal accident rate trend (per million departures) over the past five years, with 2025 recording a fatal accident rate of 0.11 fatal accidents per million departures, representing a decrease of 60 per cent from the previous year.

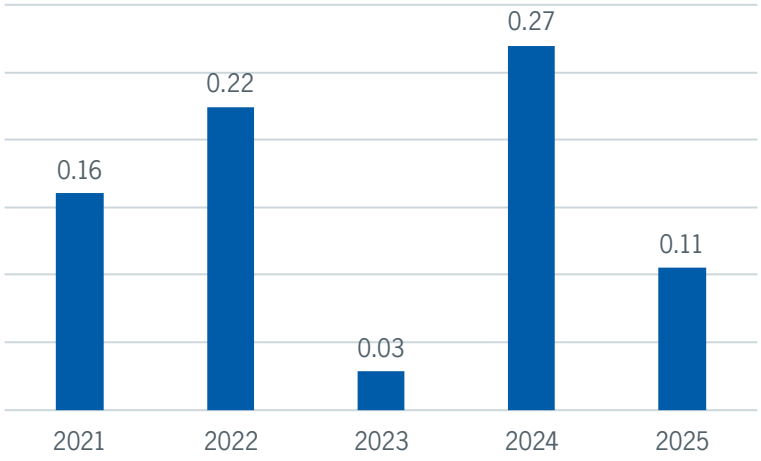


Chart 8. | Global fatal accident rates (fatal accidents per million departures)

Chart 9 displays the global fatality rate trend (per billion passengers) over the past five years, with 2025 recording a fatality rate of 78 fatalities per billion passengers, representing an increase of 20 per cent from the previous year. The year of 2025 recorded the highest fatality rate in the past five years.

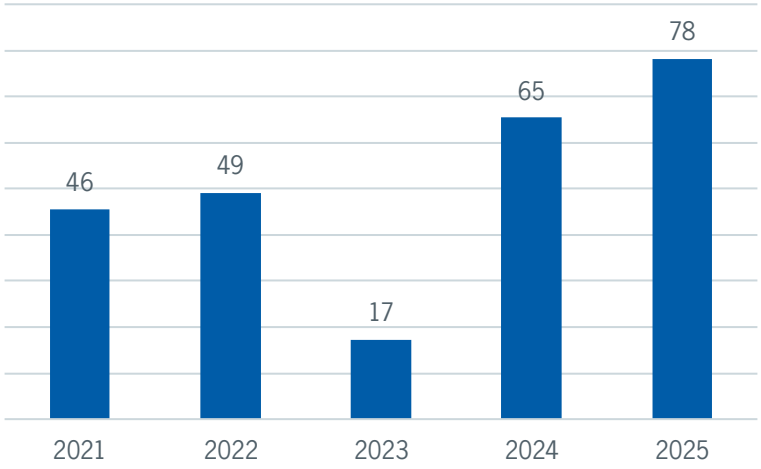


Chart 9. | Global fatality rates (fatalities per billion passengers)

Accident, Fatal Accident and Fatality Trends

The number of worldwide accidents and fatal accidents involving scheduled commercial flights during the 2021–2025 period is shown in Charts 10 and Chart 11. The year 2024 recorded the highest number of both accidents and fatal accidents in the past five years.

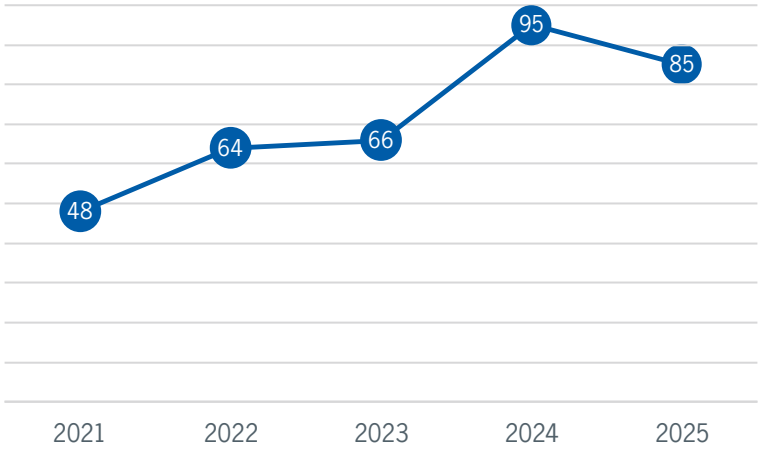


Chart 10. | Accident trend (2021–2025)

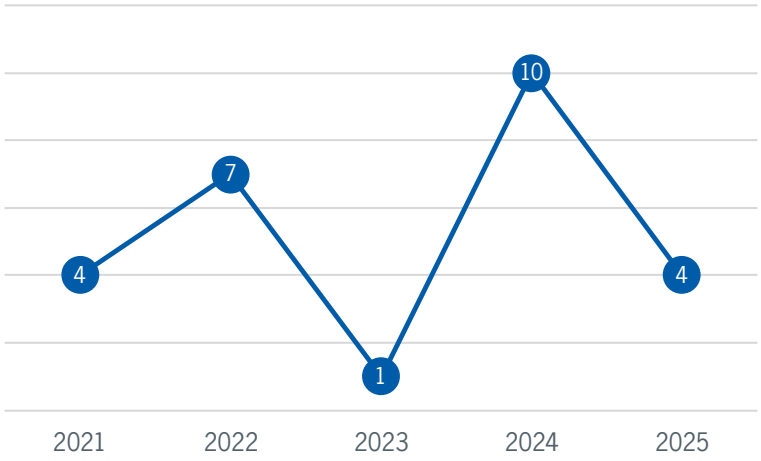


Chart 11. | Fatal accident trend (2021–2025)

Between 2021 to 2025, the highest number of accidents was recorded in 2024, with 95 accidents, while the lowest was recorded in 2021. It should be noted that during the COVID-19 pandemic there was a significant decrease in both traffic of passenger and flight departures due to government measures aimed at limiting the spread of the virus.

Beginning in 2022, as pandemic-related restrictions were lifted, air transport began to recover, and the number of accidents began increasing. In 2025, passenger and flight departures continued to increase, with total passenger traffic surpassing the pre-pandemic levels recorded in 2019, while total flight departures remained 1.8 per cent below 2019 levels.

Meanwhile, as indicated in Chart 11, the number of fatal accidents decreased significantly from 10 in 2024 to four in 2025. Chart 12 shows that the number of fatalities associated with these accidents increased from 296 in 2024 to 387 in 2025. The year 2025 recorded the highest number of fatalities in the past five years.

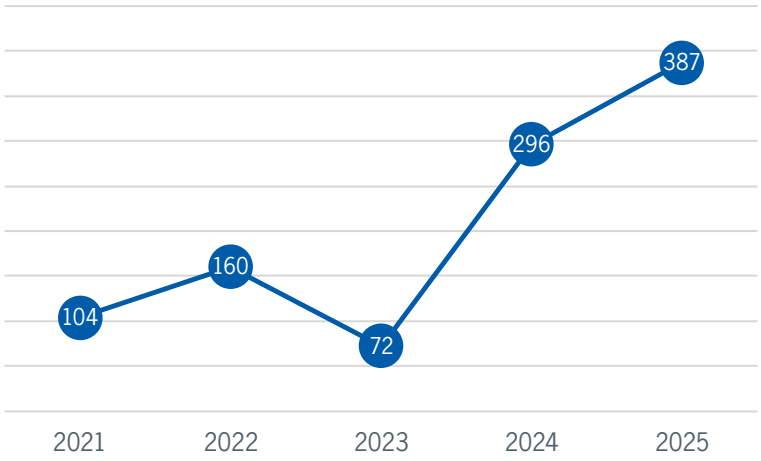


Chart 12. | Fatalities trend (2021–2025)

Fatal Accidents Overview by Occurrence Category

ICAO Member States are required to report accidents and investigated incidents in accordance with Annex 13 through the ICAO Accident/Incident Data Reporting (ADREP) system. The OVSG validates and categorizes accidents for commercial air transport, including scheduled and nonscheduled operations, involving aeroplanes with a MTOM over 5 700 kg using the ADREP taxonomy and the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team (CICTT) taxonomy for occurrence categories. Detailed information on the CICTT occurrence categories can be found in Appendix 3.

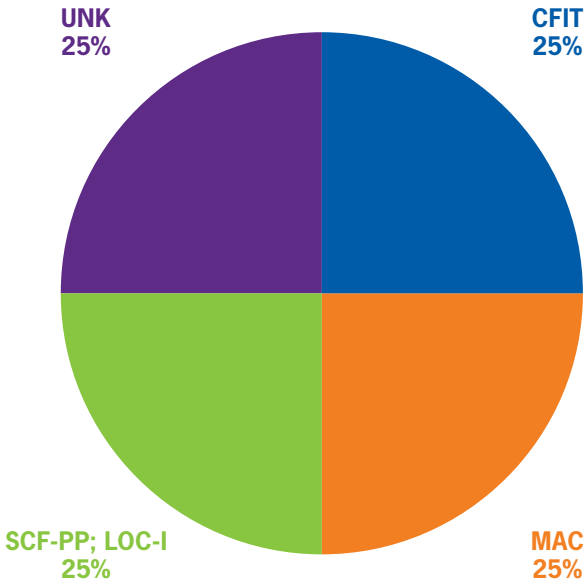


Chart 13. | Fatal accidents by occurrence category in 2025

Chart 13 presents the distribution of fatal accidents by occurrence category in 2025. Three fatal accidents were associated to controlled flight into terrain (CFIT), airprox/TCAS alert/loss of separation/near mid-air collisions/mid-air collisions (MAC), system/component failure or malfunction (powerplant) (SCF-PP) and loss of control in-flight (LOC-I). One fatal accident was categorized as UNK (Unknown or undetermined) due to insufficient information available for classification at the time of writing.

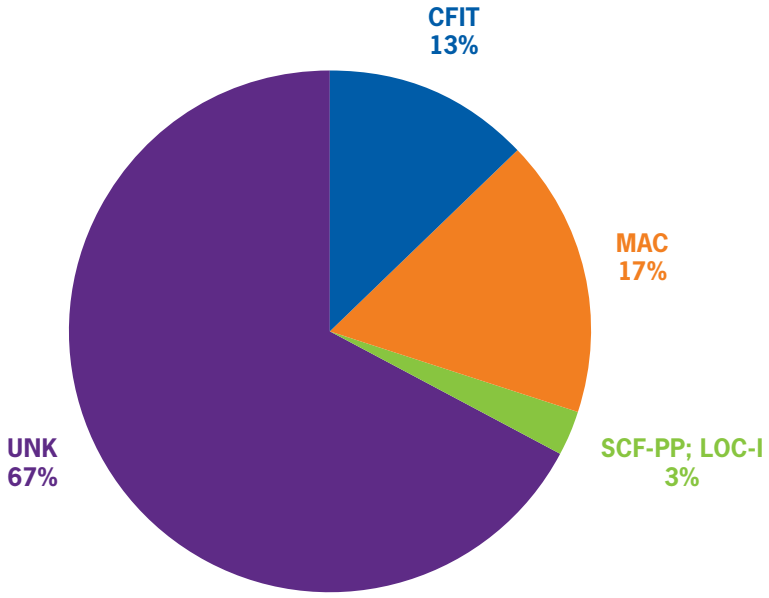


Chart 14. | Total fatalities by occurrence category in 2025

Chart 14 presents the distribution of fatalities by occurrence category in 2025. Approximately one third of total fatalities were associated with CFIT, MAC, SCF-PP and LOC-I, while over two thirds were associated to UNK.

Note 1.— Multiple occurrence categories may be assigned by the OVSG to a single accident to reflect the sequence of events that happened.

Note 2.— For the fatal accident that caused 132 fatalities in 2022 and was categorized as UNK in the 2023 edition of the Safety Report, ICAO has not received updated investigation information to support the reclassification.

Note 3.— The OVSG will update the occurrence categories currently classified as UNK once updated investigation information becomes available.

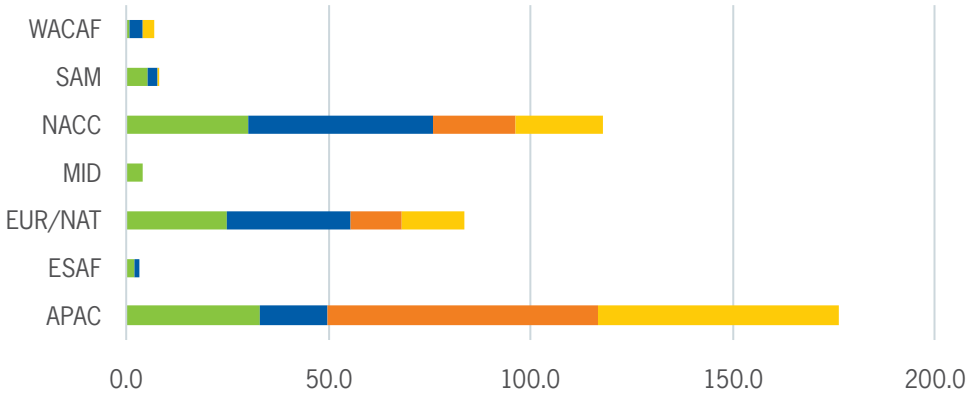
Regional Accident Statistics

To further analyze the state of aviation safety, accident data for scheduled commercial air transport operations involving aeroplanes with a maximum take-off mass (MTOM) over 5 700 kg are categorized according to ICAO Regions, based on the Contracting States accredited to each ICAO Regional Office and by State of Occurrence. Table 2 and Chart 15 provide details on the state of aviation safety in different regions for 2025 in the context of global outcomes. The States included in each ICAO Region used in this report are listed in Appendix 1.

Table 2. | Departures, accidents and fatalities by ICAO Region based on State of Occurrence in 2025

ICAO Region	Estimated departures (million)	Number of accidents	Accident rate	Number of fatal accidents	Total fatalities	Total serious injuries
APAC	12.61	14	1.11	1	260	85
ESAF	0.77	1	1.29	-	-	-
EUR/NAT	9.54	26	2.73	1	48	22
MID	1.49	-	-	-	-	-
NACC	11.43	39	3.41	2	79	31
SAM	1.99	2	1.00	-	-	1
WACAF	0.26	3	11.65	-	-	4
world	38.08	85	2.23	4	387	143

It is worth noting that these statistics are based on ADREP data reported by the State of Occurrence for 2025. Due in part to the relatively small number of departures in some regions, accident rates may fluctuate significantly from year to year. Accordingly, these numbers should be considered in relation to the total number of accidents to gain an overall perspective. Additional information on regional safety trends can be found in the regional safety reports of each ICAO Region.



	APAC	ESAF	EUR/NAT	MID	NACC	SAM	WACAF
Traffic (%)	33.1	2.0	25.0	3.9	30.0	5.2	0.7
Accidents (%)	16.5	1.2	30.6	0.0	45.9	2.4	3.5
Fatalities (%)	67.2	0.0	12.4	0.0	20.4	0.0	0.0
Serious injuries (%)	59.4	0.0	15.4	0.0	21.7	0.7	2.8

Chart 15. | Share of traffic, accidents and fatalities by ICAO Region based on State of Occurrence in 2025

Accidents by ICAO Region

Chart 16 shows the percentage distribution of accidents and associated fatalities for each ICAO Region based on the State of Occurrence for scheduled commercial operations in 2025.

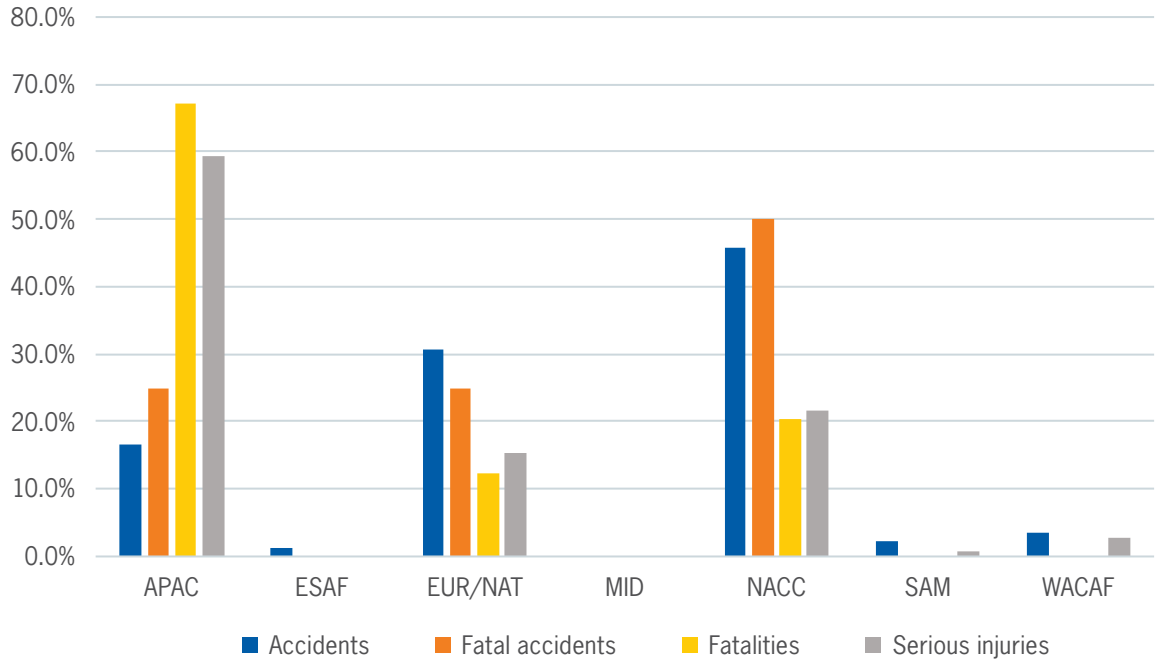


Chart 16. | Accident overview by ICAO Region in 2025

In 2025, the APAC, EUR/NAT and NACC Regions experienced a total of four fatal accidents involving scheduled commercial operations with aeroplanes having a maximum take-off mass (MTOM) over 5 700 kg, resulting in 387 fatalities. All ICAO Regions, except ESAF and MID, recorded accidents that resulted in serious injuries to passengers or crew members. All regions, except MID, recorded accidents as defined in Annex 13.

Accidents involving scheduled commercial operations with aeroplanes having a MTOM over 5 700 kg in 2025 are listed in Appendix 2.

Global High-risk Categories of Occurrences and Other Global Risk Categories of Occurrences – Commercial Air Transport

In the 2026–2028 edition of the Global Aviation Safety Plan (GASP), ICAO continues to identify five global high-risk categories of occurrence (G-HRCs) to be addressed in order to mitigate the risk of fatalities. In addition, three other global risk categories of occurrences are identified in the 2026–2028 edition of the GASP to address the frequency of the occurrences.

Based on fatalities, high fatality risk per accident, the number of accidents and incidents, as well as analyses of safety data from proactive and reactive sources from ICAO and other non-governmental organizations, ICAO continues to identify the following five G-HRCs as global safety priorities in the 2026–2028 edition of the GASP:

- controlled flight into terrain (CFIT);
- loss of control in-flight (LOC-I);
- mid-air collision (MAC);
- runway excursion (RE); and
- runway incursion (RI).

The three other global risk categories of occurrences for 2026–2028 are:

- abnormal runway contact (ARC);
- system/component failure or malfunction (non-powerplant) (SCF–NP); and
- turbulence encounter (TURB).

Chart 17 shows that in 2025, for commercial air transport operations involving aeroplanes with a maximum take-off mass (MTOM) over 5 700kg, the five G-HRCs accounted for 15 per cent of the total number of accidents, 54 per cent of total fatal accidents, 32 per cent of total fatalities, and 8 per cent of total serious injuries. The three other global risk categories of occurrences (G-ORCs) accounted for 50 per cent of the total number of accidents, 8 per cent of fatal accidents, 3 per cent of total fatalities, and 32 per cent of total serious injuries.

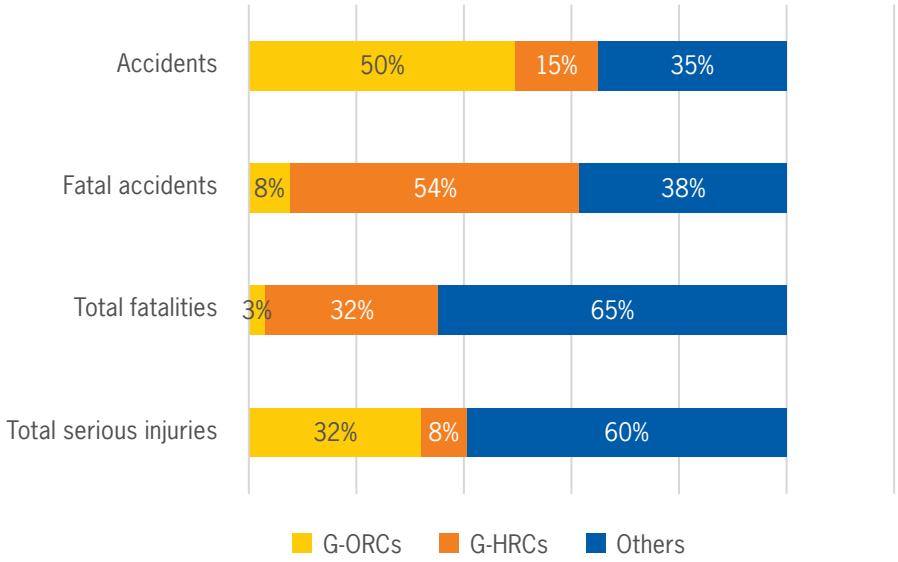


Chart 17. | G-HRCs and G-ORCs accident distribution in 2025

A breakdown of the five G-HRCs and their respective distribution of accidents, fatal accidents and fatalities in 2025 is provided below and illustrated in Chart 18.

- One accident related to CFIT resulted in fatal injuries, accounting for around 1 per cent of total accidents, 7.7 per cent of fatal accidents and 10.4 per cent of total fatalities.
- Five accidents related to LOC-I occurred, four of which resulted in fatal injuries, accounting for 4.5 per cent of total accidents, 30.8 per cent of fatal accidents and 6.9 per cent of total fatalities.
- Four accidents related to MAC occurred, one of which resulted in fatal injuries, accounting for 3.6 per cent of total accidents, 7.7 per cent of fatal accidents and 14.5 per cent of total fatalities.
- Seven accidents related to RE occurred, one of which resulted in fatal injuries, accounting for 6.3 per cent of total accidents, 7.7 per cent of fatal accidents and 0.4 per cent of total fatalities.
- No accidents related to RI were recorded in 2025 for commercial air transport operations.

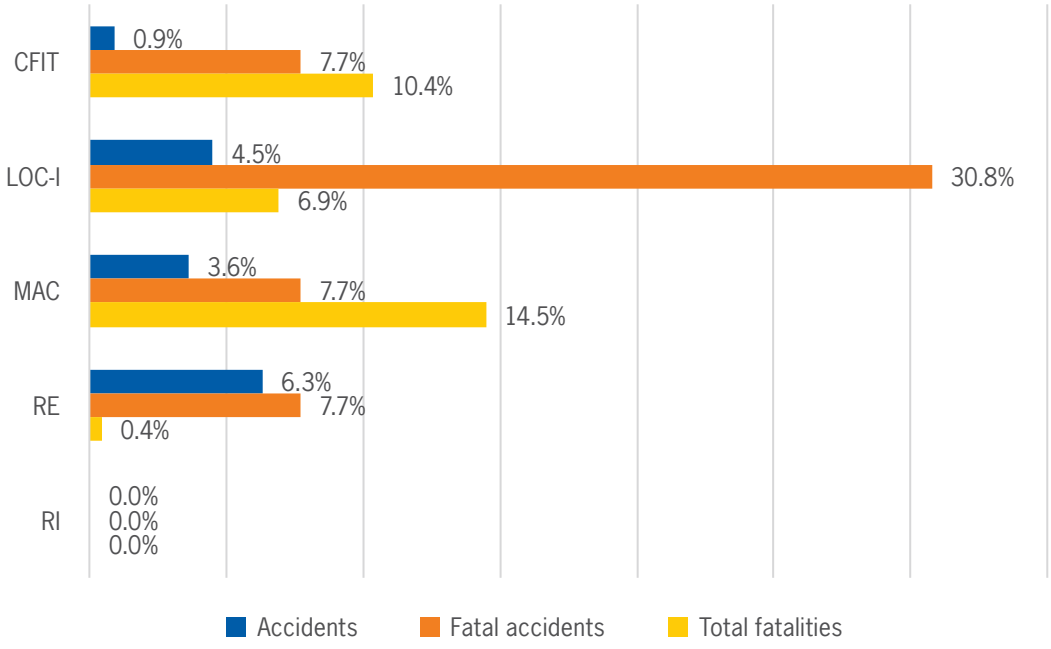


Chart 18. | G-HRC accident overview for 2025

A breakdown of the three other global risk categories of occurrences and their respective distribution of accidents and serious injuries in 2025 is provided below and illustrated in Chart 19.

- 15 accidents related to ARC occurred, accounting for 13.5 per cent of total accidents and 1.3 per cent of total serious injuries.
- 12 accidents related to SCF-NP occurred, accounting for 10.8 per cent of total accidents and 1.3 per cent of total serious injuries.
- 31 accidents related to TURB occurred, accounting for 27.9 per cent of total accidents and 29.4 per cent of total serious injuries.

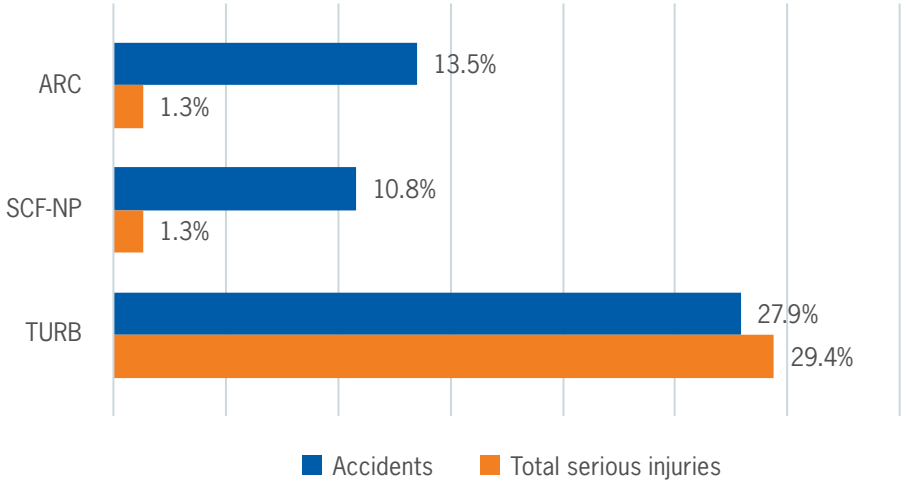


Chart 19. | G-ORCs accident overview in 2025

Runway Safety Global Priorities – Commercial Air Transport

The ICAO Global Runway Safety Action Plan (GRSAP) identifies the following occurrence categories as global priorities for runway safety:

- Abnormal runway contact (ARC)
- Ground collision (GCOL)
- Runway excursion (RE)
- Runway incursion (RI)
- Loss of control on the ground (LOC-G)
- Collision with obstacle(s) (CTOL)
- Undershoot/overshoot (USOS)

Chart 20 below shows that in 2025, for commercial air transport operations involving aeroplanes with a maximum take-off mass (MTOM) over 5 700 kg, these seven runway safety-related occurrence categories accounted for 29.7 per cent of the total number of accidents, approximately half of the accidents resulting in substantially damaged or destroyed aircraft, and 4.6 per cent of total serious injuries.

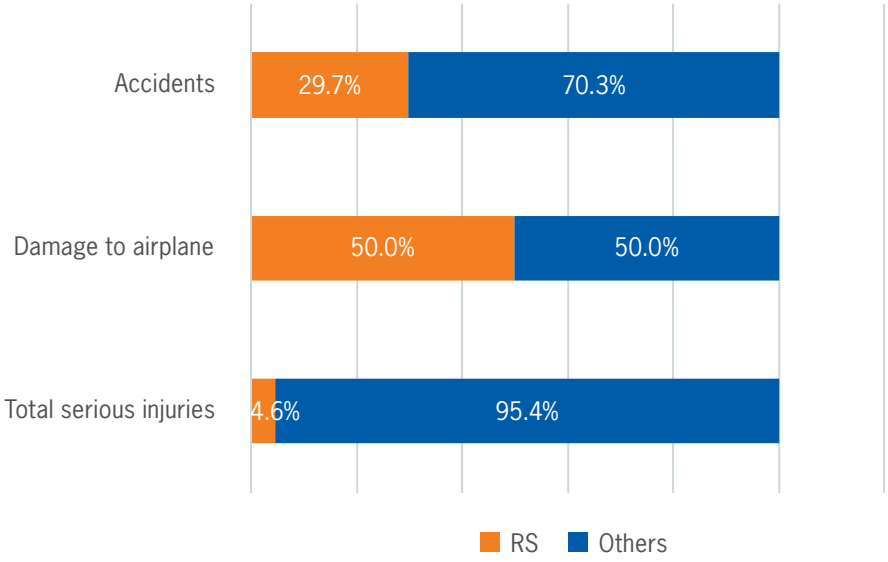


Chart 20. | Runway safety accident distribution in 2025

A breakdown of these occurrence categories and their respective distribution of accidents, accidents resulting in substantial damage or destruction, and total serious injuries in 2025 is provided below and illustrated in Chart 21.

- Accidents related to ARC accounted for 13.5 per cent of total accidents, 21.2 per cent of accidents resulting in substantial damage or destruction of aircraft, and 1.3 per cent of total serious injuries.
- Accidents related to GCOL accounted for 8.1 per cent of total accidents, 13.6 per cent of accidents resulting in substantial damage or destruction of aircraft, and 0.8 per cent of total serious injuries.
- Accidents related to LOC-G accounted for 1.8 per cent of total accidents and 3.0 per cent of accidents resulting in substantial damage or destruction of aircraft.
- Accidents related to RE accounted for 6.3 per cent of total accidents, 10.6 per cent of accidents resulting in substantial damage or destruction of aircraft, and 0.7 per cent of total serious injuries.
- No accidents related to CTOL and RI were recorded for commercial air transport operations in 2025.

Further details on ARC, RE and RI in terms of number of fatal accidents, fatalities and serious injuries are provided in Charts 18 and 19.

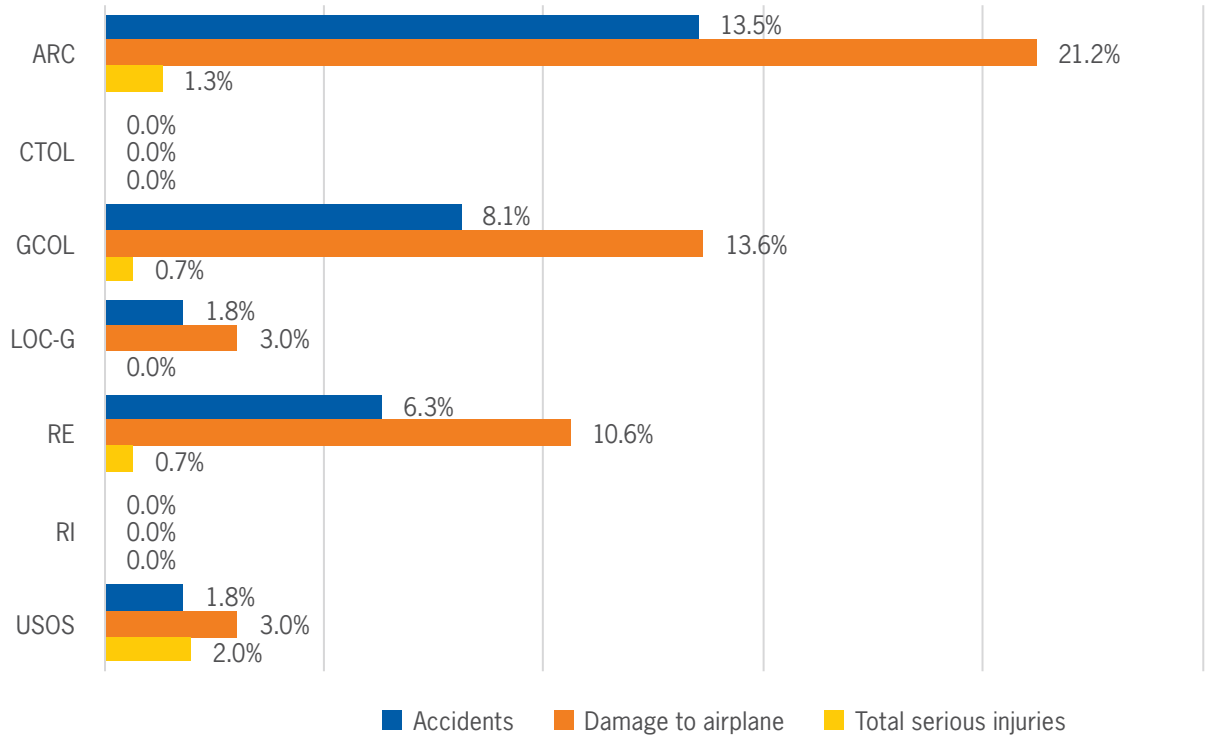


Chart 21. | Runway safety accident overview in 2025

More information about the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team (CICTT) taxonomy for occurrence categories can be found in Appendix 3.

Safety Recommendations Addressed to ICAO

Annex 13 — *Aircraft Accident and Incident Investigation* requires States to investigate accidents and incidents for the prevention of such occurrences. One of the outputs of a safety investigation is a set of Safety Recommendations (SR), which may be addressed to States (for example, the State of Design of an aircraft) or to ICAO if investigators have suggestions for changes to ICAO provisions. In addition to safety recommendations arising from accident and incident investigations, safety recommendations may result from diverse sources, including safety studies.

ICAO will inform the originating body, within 90 days of receipt of a Safety Recommendation, of the actions taken, the actions intended to be taken or the reasons why no action will be taken. Some safety recommendations addressed to ICAO are forwarded to relevant expert groups, which may lead to amendments and/or the development of ICAO provisions.

In 2025, ICAO received two safety recommendations from two States. These safety recommendations are publicly accessed on the ICAO website. Chart 22 depicts the number of Safety Recommendations addressed to ICAO during the period 2020–2025.

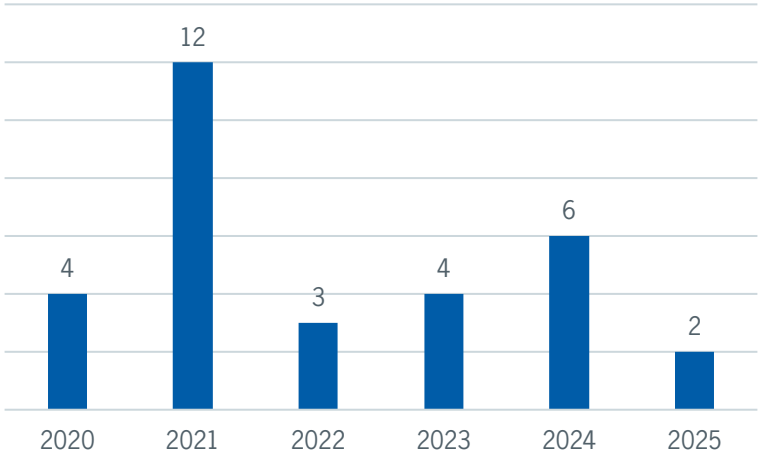


Chart 22. | Safety recommendations addressed to ICAO 2020–2025

A safety recommendation regarding a systemic deficiency with a probability of recurrence, significant consequences at the global level and requiring timely action is classified as a safety recommendation of global concern (SRGC). ICAO is informed of the issuance of an SRGC and of related responses, even when the SRGC is not addressed to ICAO. SRGCs and responses are recorded in a ICAO central database that is publicly available on the ICAO website.

Status of global effective implementation of the State Safety Oversight System

The ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) focuses on States' capabilities to provide safety oversight and to investigate aircraft accidents and incidents. The programme monitors States in order to plan activities that assess the effective implementation (EI) of their safety oversight systems, supported by ICAO's safety-related Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS) and guidance materials.

Over the past year, the global average EI score remained stable, increasing slightly from 68.67 per cent in 2024 to 68.80 per cent in 2025. In addition, the number of States achieving the 2023–2025 GASP target of 75 per cent EI increased from 45 per cent in 2024 to 46 per cent in 2025.

Effective Implementation of a State Safety Oversight System:

ICAO recognizes the efforts of all Member States to establish and maintain effective safety oversight systems capable of addressing all safety-related issues across all areas of aviation activities in support of GASP targets.

To standardize audits conducted under the USOAP CMA, ICAO established protocol questions (PQs), supported by ICAO Standards contained in the Annexes to the Chicago Convention and other ICAO provisions. The PQs are used to determine the EI of each of the eight critical elements (CEs):

- primary aviation legislation (CE-1);
- specific operating regulations (CE-2);
- State system and functions (CE-3);
- qualified technical personnel (CE-4);
- technical guidance, tools, and provisions of safety-critical information (CE-5);
- licensing, certification, authorization and/or approval obligations (CE-6);
- surveillance obligations (CE-7); and
- resolution of safety issues (CE-8).

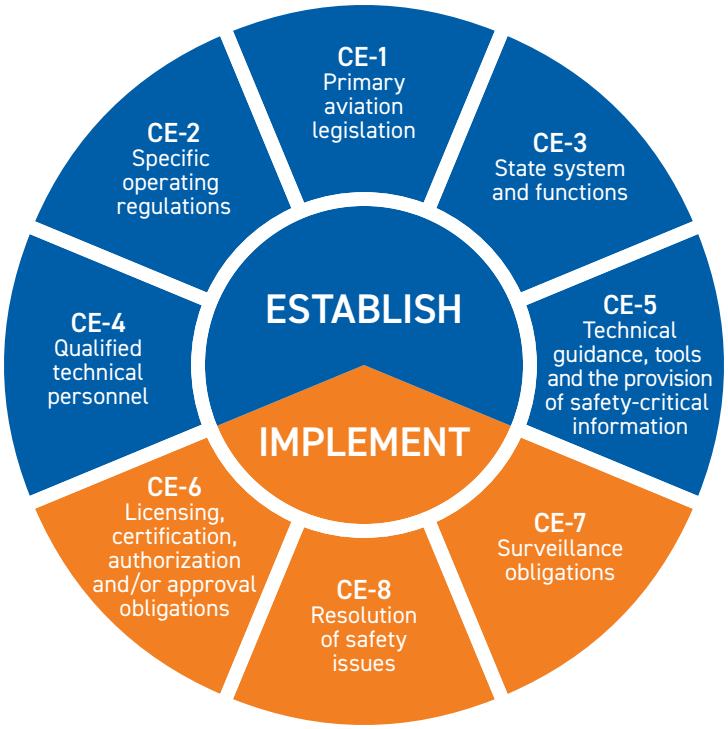


Figure 3. | Critical elements of a State's safety oversight system

The use of standardized PQs enhances the transparency, quality, consistency, reliability and fairness of the USOAP CMA audits and validation activities.

The PQs cover the following eight audit areas:

1) primary aviation legislation and civil aviation regulation (LEG);
2) civil aviation organization (ORG);
3) personnel licensing and training (PEL);
4) aircraft operations (OPS);
5) airworthiness of aircraft (AIR);
6) aircraft accident and incident investigation (AIG);
7) air navigation services (ANS); and
8) aerodromes and ground aids (AGA).

From 1 January to 31 December 2025, the USOAP CMA conducted a total of 23 USOAP CMA activities, including audits, ICAO Coordinated Validation Missions (ICVMs), off-site validations and workshops. Seven planned activities were postponed at the request of States.

The audit areas with the lowest levels of EI are aircraft accident and incident investigation (AIG) (56.54 per cent), and aerodromes and ground aids (AGA) (66.16 per cent). The Critical Elements (CE) with the lowest level of EI are resolution of safety issues (CE-8) (57.05 per cent), qualified technical personnel (CE-4) (63.80 per cent) and surveillance obligations (CE-7) (64.24 per cent).

In 2025, ICAO confirmed one significant safety concern (SSC) in one State. As of 31 December 2025, 10 SSCs remained unresolved, affecting seven States. During the year, ICAO issued two Mandatory Information Requests (MIRs), asking for information or documentation from two States for USOAP CMA review and validation.

The maintenance of an average EI score at 68.80 per cent reflects States' continued efforts to sustain previously achieved levels of safety oversight capability, particularly in the foundational Critical Elements (CEs 1 to 5). Six of ICAO's 193 Member States had not undergone a USOAP audit as of 2025.

Further analysis by CE shows that only CE-1 (primary aviation legislation) has achieved the global target of 75 per cent, while CE-2 (specific operating regulations) is approaching the target at 74.82 per cent, as illustrated in Chart 23.

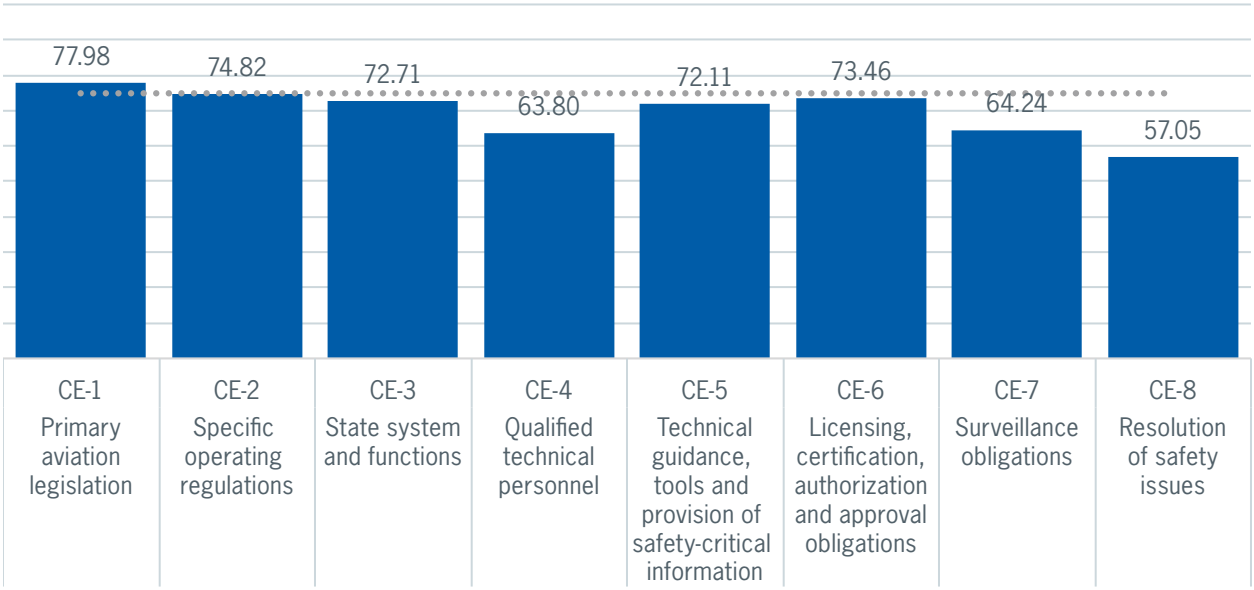


Chart 23. | USOAP Effective Implementation by Critical Element - 2025

The audit areas of LEG and AIR met the 75 per cent global target, as shown in Chart 24. Additional information on USOAP CMA results is available in the USOAP Report published every three years on the ICAO website: https://www.icao.int/sites/default/files/safety/CMAForum/USOAP_REPORT_2022-2024.pdf

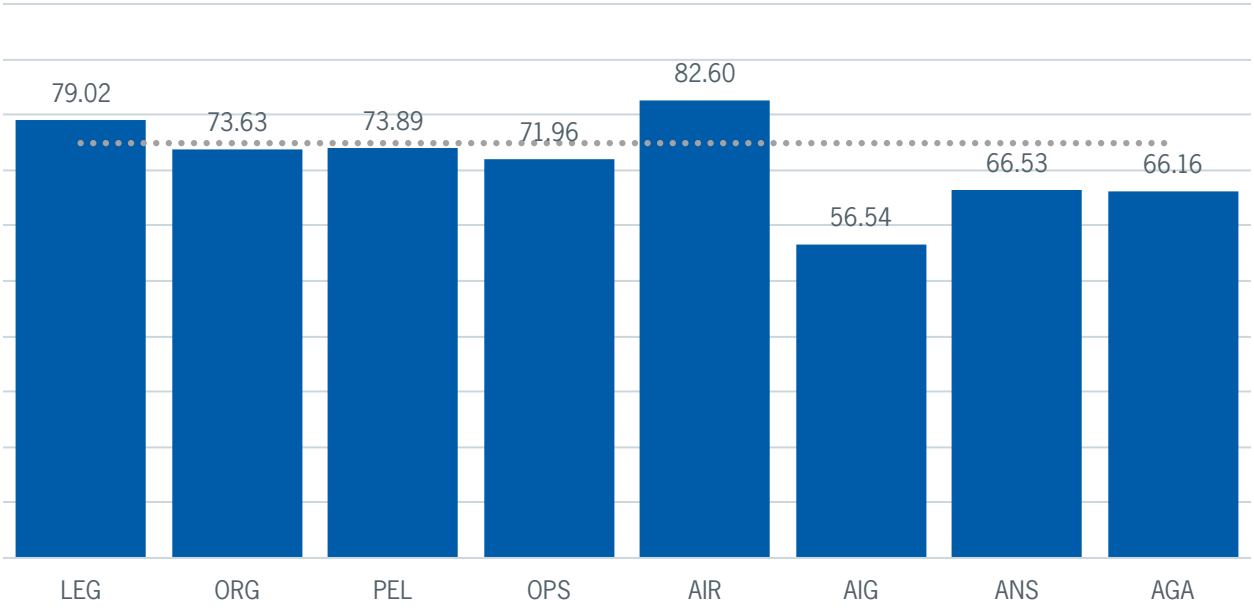


Chart 24. | USOAP Effective Implementation by Audit Area - 2025

Global Initiatives and Success Stories on Enhancing Aviation Safety

In addition to the development of SARPs and guidance material, ICAO develops various programmes, initiatives and implementation tools to address specific safety issues and implementation challenges, in coordination with its Regional Offices and aviation stakeholders, to support the continuous improvement of aviation safety.

Human Factors in Aviation: Designing for System and Human Performance to Meet Aspirational Goals

Human activity remains at the core of aviation safety and performance in both current operations and emerging activities. While technology continues to advance, the human element must be effectively integrated into system design and operations. Assembly Resolution A42-8, Appendix O, recognizes that human performance contributes to aviation safety and that leveraging the benefits of new technologies requires systems to be designed to support systems and procedures, which can only be realized when they are designed to enhance the performance of individuals who use them. The Resolution further requires States to integrate human performance considerations into all aspects of safety planning and system design.

Human performance is shaped by a range of factors at the individual, organizational, environmental and technological levels, as well as by the complex interactions between these elements. The field of Human Factors examines how people interact with systems with the goal of improving safety, performance and reliability through designing systems that support human performance. By understanding the system requirements for safe, effective performance and designing processes, structures and equipment that align with human capabilities and limitations, the aviation industry can continue to improve safety and adapt to future challenges.

While technological advances have significantly improved aircraft capabilities, many incidents and accidents demonstrate the influence of system design on human performance. The current challenge extends beyond reducing errors to understanding how humans operate within increasingly automated and complex systems, identifying and implementing effective interventions that support system and human performance, the well-being of humans and measuring the effectiveness of interventions.

Through its integrated approach, ICAO training supports both implementation and capacity development. Under this mandate, and in collaboration with the Air Navigation Bureau, Global Aviation Training has developed new learning products, the Human Factors Workshop and the Human Performance for Regulators online course. Together, these initiatives support Assembly Resolution A42-8, Appendix O and contribute to the aspirational goal that every flight is safe and secure, with no country left behind, by turning these expectations into practical, actionable capability development.

Integrating human factors is essential to achieving the aspirational goal of every flight being safe and secure, as it enhances a wide range of activities, from developing realistic regulations and effective oversight to equipment design, training and competency standards, and organizational design and function, to minimize errors and increase safety and security. Through global collaboration and capacity-building, the aviation community can ensure that all countries are equipped to implement these practices effectively – supporting consistent standards of safety, security and operational excellence worldwide, with no country left behind.

Unmanned aviation and advanced air mobility (AAM) growth

The continued growth of unmanned aviation is reflected in unmanned aircraft systems (UAS) registration and certification statistics reported by States. In the United States, by the end of 2025, the Federal Aviation Administration (FAA) reported 453 635 commercial UAS registrations and 481 760 certificated remote pilots, compared with 412 505 and 438 673, respectively, at the beginning of 2025[1]. Australia's remotely piloted aircraft sector has also continued to expand. By March 2026, official Civil Aviation Safety Authority (CASA) sources reported more than 43 200 remote pilot licences and almost 3 100 remotely piloted aircraft operator certificates, compared with 37 441 and 2 849, respectively, at the end of June 2024[2]. In Europe, official European Union Aviation safety Agency (EASA) data likewise indicate continued growth in the unmanned aviation sector.

As of March 2026, 2 001 669 UAS operators were registered in EASA Member States, compared with 1 669 510 in April 2025, while 1 732 162 remote pilot certificates had been issued, compared with 1 323 394 in April 2025[3]. Official Swiss reporting also points to rapid growth in complex UAS activity and a strong international orientation of the sector. In its December 2024 report, the Swiss Federal Council stated that approximately 85 per cent of Swiss UAS hardware and software products were exported in 2023/2024[4], while the Swiss Federal Office of Civil Aviation (FOCA) reported that the number of registered UAS pilots increased from 67 838 at the end of 2023 to 94 403 by mid-December 2024[5]. ICAO remains committed to facilitating the safe and globally harmonized integration of unmanned aircraft systems and advanced air mobility into international aviation operations.

Unmanned Aircraft Systems Traffic Management (UTM) developments

Unmanned aircraft systems traffic management (UTM) has emerged as a key enabler for the safe, efficient and scalable integration of increasingly automated UAS operations into airspace systems. ICAO continues to support the globally harmonized and interoperable deployment of UTM by convening States, industry and other stakeholders, and by providing implementation guidance for safe operations.

Important milestones are already demonstrating the operational maturation of UTM concepts, including the validation of initial U-space implementation in France, Italy and Spain through the SESAR U-ELCOME project[6], as well as large-scale demonstrations such as the Benidorm operation in Spain, which illustrated the feasibility of coordinated multi-operator traffic management in a real urban environment[7]. Progress is also evident at the national level, including the integration of approved UAS service suppliers with Australia's Flight Information Management System (FIMS) to facilitate data exchange and airspace access[8], and continuing work in the United States through the FAA's development of an interoperable low-altitude traffic management ecosystem, supported by NASA's efforts to operationalize UTM concepts for beyond visual line-of-sight (BVLOS) UAS operations[9].

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[1] https://www.faa.gov/node/54496
[2] https://www.casa.gov.au/about-us/news-media-releases-and-speeches/rpas-australian-skies-2026
[3] https://experience.arcgis.com/experience/d0ee9539dcae4b01b60532d757c97bc8
[4] https://www.parlament.ch/centers/eparl/curia/2022/20224580/Bericht%20BR%20F.pdf
[5] https://www.bazl.admin.ch/en/asr24-conflicts-with-drones
[6] https://www.sesarju.eu/news/u-space-becoming-reality-sesar-ju-showcases-demonstrator-achievements-across-europe
[7] https://www.sesarju.eu/news/benidorm-hosts-demonstration-urban-air-taxi-and-drone-operations
[8] https://www.casa.gov.au/about-us/news-media-releases-and-speeches/future-automated-airspace-authorisations-and-drone-safety-apps
[9] https://www.faa.gov/uas/advanced_operations/traffic_management

In this context, ICAO's Advanced Air Mobility Study Group (AAM SG) is currently developing UTM implementation guidance to support States in deploying interoperable UTM systems on a level playing field. This builds on the global Call to Action from ICAO's first AAM Symposium, held in Montréal, from 9 to 12 September 2024), which urged international collaboration on AAM challenges. ICAO will hold its Second AAM Symposium in Bangkok, Thailand from 1 to 3 December 2026, under the theme "From Vision to Implementation: Enabling the AAM Ecosystem", which will focus on critical pathways to safe, scalable and globally interoperable AAM operations, including lessons learned, workforce and infrastructure needs, and harmonized regulations. The UTM guidance and multi-stakeholder collaboration fostered by these efforts will be crucial for the safe global integration of UAS and AAM.

Advanced Air Mobility (AAM) progress

Advanced Air Mobility (AAM) represents an emerging aviation ecosystem composed of a wide range of technologies, services, operations, aircraft, and use cases. AAM encompasses, firstly, operations of aircraft without a pilot onboard, often requiring novel services and infrastructure to support or scale such operations. It also includes, secondly, operations of aircraft with a pilot onboard, supported by new aircraft designs, propulsion methods, operational concepts and increasing levels of automation, including new human–machine interfaces, pilot training considerations and airworthiness standards.

More broadly, AAM extends beyond individual aircraft or operations and represents an ecosystem that includes operational, economic, social, environmental and infrastructure dimensions. During the 42nd Session of the ICAO Assembly, States presented several working papers addressing UAS, remotely piloted aircraft systems (RPAS), UTM and AAM. The Assembly expressed strong support for the approach taken by ICAO in addressing emerging aviation technologies.

The Assembly recognized the increasing operational complexity associated with integrating these new entrants into global aviation and highlighted the urgent need for timely, fit-for-purpose global provisions and frameworks for areas such as UAS operations, UTM, cross-border UAS activities and the emerging AAM ecosystem, reaffirming ICAO's leadership role in this domain.

To support this work, ICAO's AAM SG is developing a global and holistic vision of the AAM ecosystem and conducting a gap analysis of existing ICAO provisions to identify areas where future regulatory and guidance material may be required. In parallel, the group is progressing work on guidance material to support early implementation of eVTOL operations within the current ATM environment, as well as developing the UTM Implementation Guidance Manual to assist States in enabling interoperable and scalable operations.

United Nations Unmanned Aviation Coordination

The growing use of unmanned aviation across the United Nations (UN) system has led to the establishment of the United Nations Unmanned Aviation Coordination Forum, a joint initiative led by ICAO, the United Nations Department of Operational Support (UNDOS) and the World Food Programme (WFP)[10]. The Forum aims to enhance coordination, promote regulatory coherence and facilitate the safe, efficient and harmonized use of UAS across UN missions, including humanitarian assistance, disaster response, peacekeeping and sustainable development activities.

It was formally established during the endorsement of the Declaration by the Organizations of the United Nations System on the Development of Harmonized Unmanned Aviation Frameworks on 30 April 2025, through which participating UN entities committed to strengthening collaboration, harmonization and the development of common UAS frameworks to support their respective mandates.

Structured as a multi-level coordination interface, the Forum supports knowledge exchange, capacity-building and the development of enabling frameworks and operational tools, contributing to improved safety, efficiency and interoperability of unmanned aviation activities across the UN system. These efforts reinforce ICAO's role in supporting States and international organizations in advancing globally harmonized approaches to UAS operations, including in complex and humanitarian operating environments.

Capacity-building and Implementation

To support States in implementing UAS and RPAS frameworks, ICAO has developed a series of interactive regional workshops, delivered in coordination with its Regional Offices and aligned with Assembly Resolution A41-9. These workshops aim to strengthen national understanding of regulatory concepts, promote the applicability of ICAO SARPs and guidance material, provide practical pathways for implementation, and facilitate dialogue among regulators, industry and operational stakeholders.

In 2025, ICAO conducted regional workshops across multiple regions, including the NACC/SAM workshop held in Mexico City, Mexico from 17 to 19 June 2025, the ESAF/WACAF workshop held in Nairobi, Kenya from 25 to 27 June 2025, and the APAC regional workshop held in Bangkok, Thailand from 4 to 6 November 2025[11]. These workshops provide a platform for sharing operational experience, identifying implementation challenges and advancing harmonized approaches, supporting States in progressing from initial awareness to operational capability in unmanned aviation.

[10] https://www.icao.int/UA/UN-Coordination
[11] https://www.icao.int/UA/Regional-Coordination

Introduction of Quantitative Volcanic Ash Concentration Information (QVA)

Volcanic ash from major eruptions has long posed significant safety risks to international aviation. In critical concentrations, it can cause damage to aircraft engines, cause surface abrasion and affect onboard systems, creating serious operational hazards. Past events have demonstrated the scale of disruption, with widespread flight cancellations and rerouting leading to substantial economic and logistical impacts across the global aviation network.

To mitigate these risks, the International Airways Volcano Watch (IAVW) was established in the early 1990s under the International Civil Aviation Organization (ICAO). Within this framework, nine volcanic ash advisory centres (VAACs) – Anchorage, Darwin, Buenos Aires, London, Montréal, Tokyo, Toulouse, Washington, and Wellington – collaborate to continuously monitor volcanic activity and forecast atmospheric ash dispersion. These centres issue Volcanic Ash Advisories (VAAs), which provide essential information on the presence, movement and forecast extent of ash clouds to support safe flight operations.

While the provision of VAAs has significantly improved situational awareness and safety with respect to volcanic events, continued growth in global air traffic has increased the demand for more precise information. Airlines and air navigation service providers require higher-resolution data to better assess risk and optimize operational decision-making, particularly during complex or prolonged volcanic events.

To address increasing operational demands, the IAVW has determined the requirements for the new service – which was introduced into ICAO Annex 3 in November 2025 as a Recommended Practice. Quantitative volcanic ash concentration information (QVA) provides both deterministic and probabilistic forecasts of volcanic ash concentration with improved spatial and temporal resolution. It enables more precise identification of areas where ash concentration may exceed defined safety thresholds determined by the latest research into aircraft engine tolerance against various types of volcanic ash. This new information strongly supports more accurate, evidence-based safety risk assessments and more efficient flight planning.

As of April 2026, VAACs London and Toulouse have implemented QVA, with the other seven centres progressing towards operational adoption as part of a coordinated global effort.

A key milestone was the first live demonstration of QVA by VAAC Toulouse during the eruption of Mount Hayli Gubbi in November 2025. This demonstrated its practical value by enabling more precise hazard assessment and supporting effective risk management by aviation stakeholders.

QVA represents a significant evolution in aviation meteorological services. By transitioning from qualitative advisories to quantitative, high-resolution forecasts, it enhances aviation users' ability to maintain safety during operations in or near areas affected by volcanic ash. As implementation expands, QVA is expected to play an important role in improving the safety, efficiency and resilience of global air navigation during significant volcanic events.

Further information on operational procedures and guidance for the provision of volcanic ash information under the IAVW framework, including QVA, can be found in the *Handbook on the International Airways Volcano Watch* (IAVW, Doc 9766), and the updated QVA Flyer, both available at https://www.icao.int/airnavigation/aeronautical-meteorological-service/documents.

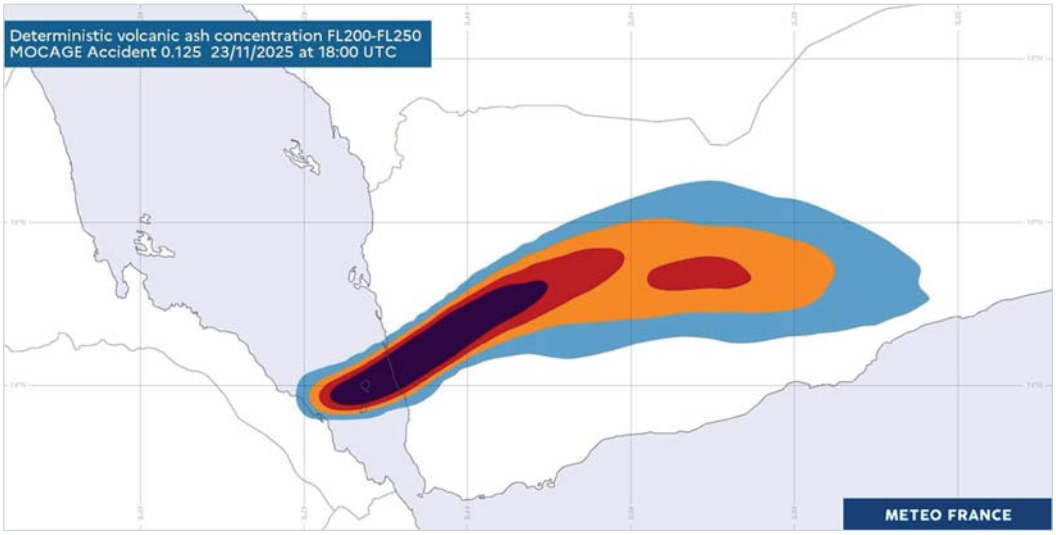


Figure 4. | Example of deterministic presentation of QVA issued by VAAC Toulouse, during the Hayli Gubbi event in November 2025 (Courtesy of VAAC Toulouse, Meteo France)

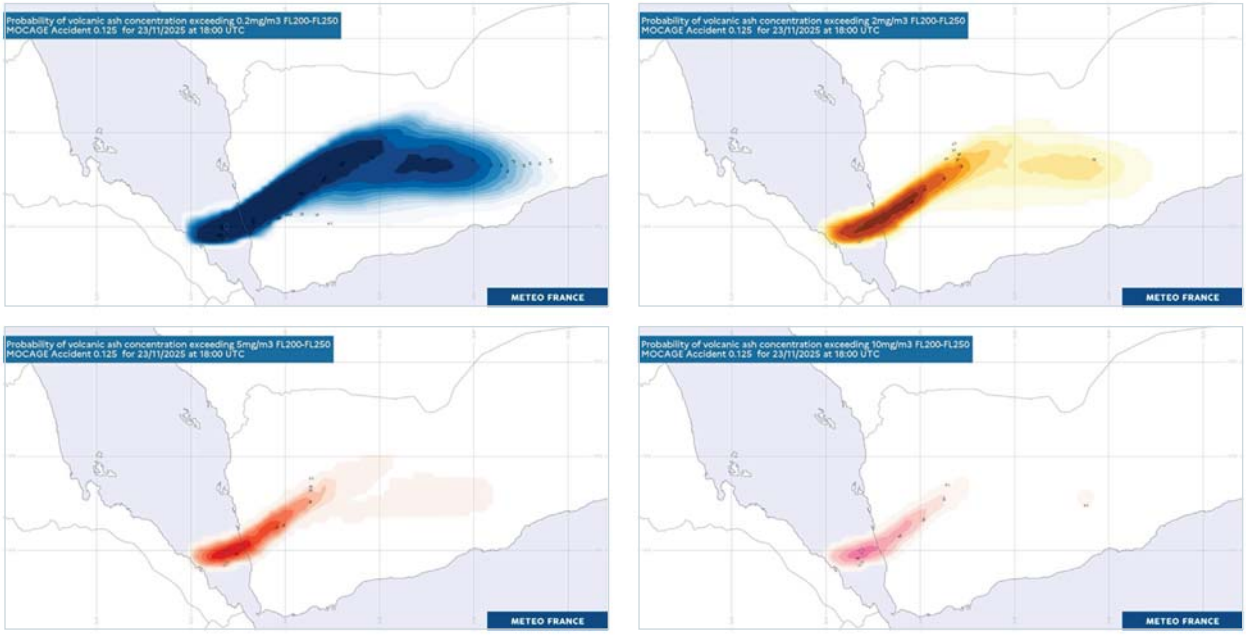
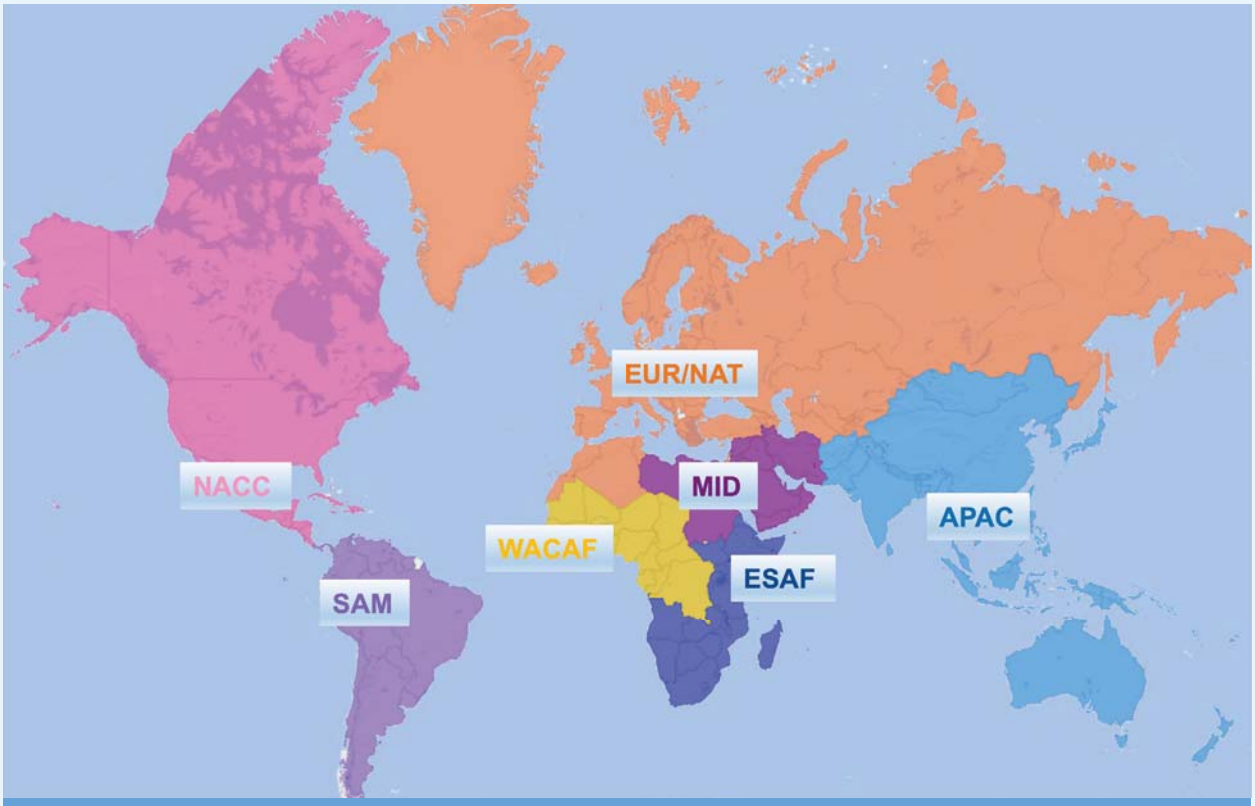


Figure 5. | Gridded probabilistic data for QVA issued by VAAC Toulouse, during the Hayli Gubbi event in November 2025 (Courtesy of VAAC Toulouse, Meteo France)

Appendix 1

ICAO Regions

The ICAO Regions used for statistical purposes in this report are based on the Member States accredited to each ICAO Regional Office. ICAO maintains seven Regional Offices to support coordination with Member States: Asia and Pacific (APAC) Office; Eastern and Southern African (ESAF) Office; European and North Atlantic (EUR/NAT) Office; Middle East (MID) Office; North American, Central American and Caribbean (NACC) Office; South American (SAM) Office; and Western and Central African (WACAF) Office. More information about ICAO Regional Offices can be found at https://www.icao.int/secretariat/RegionalOffice/Pages/default.aspx.



APAC (39)

Afghanistan
Australia
Bangladesh
Bhutan
Brunei Darussalam
Cambodia
China
Cook Islands
Democratic People's Republic of Korea
Fiji
India
Indonesia
Japan
Kiribati
Lao People's Democratic Republic
Malaysia
Maldives
Marshall Islands
Micronesia (Federated States of)
Mongolia
Myanmar
Nauru
Nepal
New Zealand
Pakistan
Palau
Papua New Guinea
Philippines
Republic of Korea
Samoa
Singapore
Solomon Islands
Sri Lanka
Thailand
Timor-Leste
Tonga
Tuvalu
Vanuatu
Viet Nam

Appendix 1

ESAF (24)

Angola
Botswana
Burundi
Comoros
Djibouti
Eritrea
Eswatini
Ethiopia
Kenya
Lesotho
Madagascar
Malawi
Mauritius
Mozambique
Namibia
Rwanda
Seychelles
Somalia
South Africa
South Sudan
Uganda
United Republic of Tanzania
Zambia
Zimbabwe

EUR/NAT (56)

Albania
Algeria
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Morocco
Netherlands
North Macedonia
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
Tunisia
Türkiye
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

MID (15)

Bahrain
Egypt
Iran (Islamic Republic of)
Iraq
Jordan
Kuwait
Lebanon
Libya
Oman
Qatar
Saudi Arabia
Sudan
Syrian Arab Republic
United Arab Emirates
Yemen

NACC (22)

Antigua and Barbuda
Bahamas
Barbados
Belize
Canada
Costa Rica
Cuba
Dominica
Dominican Republic
El Salvador
Grenada
Guatemala
Haiti
Honduras
Jamaica
Mexico
Nicaragua
Saint Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
Trinidad and Tobago
United States

Appendix 1

SAM (13)				
Argentina	Brazil	Ecuador	Paraguay	Uruguay
Bolivia (Plurinational State of)	Chile	Guyana	Peru	Venezuela (Bolivarian Republic of)
	Colombia	Panama	Suriname	

WACAF (24)				
Benin	Chad	Gabon	Mali	Senegal
Burkina Faso	Congo	Gambia	Mauritania	Sierra Leone
Cameroon	Côte d'Ivoire	Ghana	Niger	Togo
Cabo Verde	Democratic Republic of the Congo	Guinea	Nigeria	
Central African Republic	Equatorial Guinea	Guinea-Bissau	Sao Tome and Principe	
		Liberia		

Appendix 2

List of accidents involving scheduled commercial air transport operations of aeroplanes with a maximum take-off mass (MTOM) over 5 700 kg in 2025

Local Date	Aircraft Make/Model/ Master series	State/Area of Occurrence	ICAO Region	Occurrence category	Highest damage	Injury Level	Total fatalities	Total serious injuries	Total minor injuries
2025-01-05	EMBRAER 195LR	Germany	EUR/NAT	RAMP	Substantial	None	-	-	-
2025-01-08	BOEING 787-9	United States	NACC	TURB	None	Serious	-	1	4
2025-01-09	BOEING 737-800	Denmark	EUR/NAT	GCOL	Substantial	None	-	-	-
2025-01-10	BOEING 757-300	United States	NACC	EVAC; SCF-PP; F-NI	Minor	Serious	-	1	7
2025-01-24	BOEING 787-8	Côte D'Ivoire	WACAF	AMAN	None	Serious	-	1	15
2025-01-28	BOEING 737-400	Nigeria	WACAF	SCF-NP	Substantial	None	-	-	-
2025-01-28	AIRBUS A321-200	Republic of Korea	APAC	F-NI; EVAC	Destroyed	Serious	-	3	24
2025-01-29	BOMBARDIER CL600 2C10; SIKORSKY UH60	United States	NACC	MAC	Destroyed	Fatal	67	-	-
2025-02-01	BOMBARDIER CL600 2B19	United States	NACC	GCOL	Substantial	Serious	-	1	-
2025-02-03	BOEING 737- 8	Canada	NACC	RAMP	Substantial	None	-	-	-
2025-02-05	BOEING 737-800; BOEING 787-9	United States	NACC	GCOL	Substantial	None	-	-	-
2025-02-05	BOEING 737-8	United Kingdom	EUR/NAT	BIRD	Substantial	None	-	-	-
2025-02-10	ANTONOV An26	Central African Republic	WACAF	USOS	Substantial	Serious	-	3	3
2025-02-13	BOEING 777-300ER	Australia	APAC	TURB	None	Serious	-	1	-
2025-02-13	BOEING 737-700	United States	NACC	TURB	None	Serious	-	1	-
2025-02-17	BOMBARDIER CL600 2D24	Canada	NACC	ARC	Destroyed	Serious	-	2	21
2025-03-02	BOEING 737-8	United States	NACC	TURB; CABIN	None	Serious	-	1	-
2025-03-04	BAE JETSTREAM 3100-3200	Peru	SAM	SCF-NP; RE	Destroyed	None	-	-	-
2025-03-08	AIRBUS A321-200	India	APAC	ARC	Substantial	None	-	-	-
2025-03-13	BOEING 737-800	United States	NACC	F-NI; SCF-PP; EVAC	Substantial	Minor	-	-	12
2025-03-17	BAE JETSTREAM 3100-3200	Honduras	NACC	SCF-PP; LOC-I	Destroyed	Fatal	12	5	-
2025-03-22	BOEING 737-800	Italy	EUR/NAT	RAMP	None	Serious	-	1	-
2025-03-24	BOEING 737-800	Italy	EUR/NAT	RAMP	None	Serious	-	1	-

Appendix 2

Local Date	Aircraft Make/Model/ Master series	State/Area of Occurrence	ICAO Region	Occurrence category	Highest damage	Injury Level	Total fatalities	Total serious injuries	Total minor injuries
2025-03-27	BOEING 787-9	Philippines	APAC	TURB	None	Serious	-	2	4
2025-04-14	BOEING 737-800	Algeria	EUR/NAT	TURB	Minor	Serious	-	1	2
2025-04-15	ATR ATR72-200	United Kingdom	EUR/NAT	ARC	Substantial	None	-	-	-
2025-04-15	AIRBUS A321-200N	United States	NACC	ARC	Substantial	None	-	-	-
2025-04-17	BOEING 737-700	United States	NACC	EVAC; SCF-PP	None	Serious	-	1	-
2025-04-20	BOEING 737-700	United States	NACC	TURB	None	Serious	-	1	-
2025-05-02	BOEING 737-700	United States	NACC	WSTRW	Substantial	None	-	-	-
2025-05-11	AIRBUS A321-200N	Czechia	EUR/NAT	ARC	Substantial	None	-	-	-
2025-05-16	FOKKER 50	Panama	SAM	RE	Destroyed	Minor	-	1	34
2025-05-30	AIRBUS A320-200	Spain	EUR/NAT	TURB	None	Serious	-	2	1
2025-06-04	BOEING 737-800	Germany	EUR/NAT	TURB	None	Serious	-	2	-
2025-06-08	BOEING 737-8	United States	NACC	AMAN	None	Serious	-	1	3
2025-06-10	BOEING 787-8	Singapore	APAC	TURB	None	Serious	-	1	-
2025-06-10	EMBRAER ERJ190-200LR	Belgium	EUR/NAT	TURB	None	Serious	-	1	-
2025-06-12	BOEING 787-8	India	APAC	UNK	Destroyed	Fatal	260	68	-
2025-06-14	BOEING 737-700	United States	NACC	TURB	None	Serious	-	1	-
2025-06-15	BOEING 737-900ER	United States	NACC	TURB	None	Serious	-	2	1
2025-06-18	BOEING 737-800	United States	NACC	TURB	None	Serious	-	1	10
2025-06-18	BOEING 737-800	Sweden	EUR/NAT	MAC; AMAN	None	Serious	-	1	-
2025-06-22	AIRBUS A321-200	United States	NACC	TURB	None	Serious	-	1	9
2025-06-22	AIRBUS A320-200	United States	NACC	TURB	None	Serious	-	1	-
2025-06-27	AIRBUS A350-900	China	APAC	TURB	None	Serious	-	1	-
2025-06-27	BOEING 737-800; BOEING 737-800	Russian Federation	EUR/NAT	GCOL	Substantial	None	-	-	-
2025-07-02	BOEING 737-900ER	United States	NACC	ARC	Substantial	None	-	-	-
2025-07-05	BOEING 737-800	Spain	EUR/NAT	EVAC	None	Serious	-	3	-
2025-07-06	BOEING 737-800	Indonesia	APAC	TURB; CABIN	None	Serious	-	2	-
2025-07-07	AIRBUS A321-200	Poland	EUR/NAT	WSTRW	Substantial	None	-	-	-

Appendix 2

Local Date	Aircraft Make/Model/ Master series	State/Area of Occurrence	ICAO Region	Occurrence category	Highest damage	Injury Level	Total fatalities	Total serious injuries	Total minor injuries
2025-07-10	BOEING 737-800	Italy	EUR/NAT	RAMP	None	Serious	-	1	-
2025-07-12	AIRBUS A320-200N	United States	NACC	ARC	Substantial	None	-	-	-
2025-07-14	EMBRAER ERJ170-200LR	United States	NACC	ARC	Substantial	None	-	-	-
2025-07-16	DE HAVILLAND DHC8-400	Ethiopia	ESAF	RE	Destroyed	Minor	-	--	3
2025-07-17	BOMBARDIER CL600 2D24	United States	NACC	TURB	None	Serious	-	1	-
2025-07-18	BOEING 787-10; AIRBUS CANADA BD500-1A11 (A220-300)	United States	NACC	GCOL	Substantial	Minor	-	-	2
2025-07-18	AIRBUS A319-100	United States	NACC	RAMP	None	Serious	-	1	-
2025-07-21	EMBRAER ERJ 170-200LR	United States	NACC	TURB	None	Serious	-	1	-
2025-07-24	ANTONOV AN24	Russian Federation	EUR/NAT	CFIT	Destroyed	Fatal	48	-	-
2025-07-26	BOEING 737-8	United States	NACC	SCF-NP; F-NI	Substantial	None	--	-	-
2025-07-30	AIRBUS A330-900	United States	NACC	TURB	Minor	Serious	-	2	5
2025-08-16	ATR ATR72-200	Finland	EUR/NAT	LOC-G; GCOL	Substantial	None	-	-	-
2025-08-16	AIRBUS A321-200N	India	APAC	ARC	Substantial	Unknown	-	-	-
2025-08-20	AIRBUS A320-200	France	EUR/NAT	TURB	None	Serious	-	5	-
2025-08-20	AIRBUS A350-900	Thailand	APAC	TURB	None	Serious	-	4	1
2025-08-28	EMBRAER ERJ170-200LR	United States	NACC	TURB	None	Serious	-	1	1
2025-08-28	AIRBUS A320-200	United States	NACC	MAC; AMAN	None	Serious	--	1	2
2025-08-31	AIRBUS CANADA BD500 (A220-300)	United States	NACC	EVAC	None	Serious	-	1	-
2025-09-07	BOEING 737-800	Netherlands/ Sint Maarten	EUR/NAT	SCF-NP; EVAC	Substantial	Minor	-	-	1
2025-09-11	AIRBUS A321-200N	Czechia	EUR/NAT	ARC	Substantial	None	-	-	-
2025-09-12	BOEING 737-700	United States	NACC	TURB	None	Serious	-	1	-
2025-09-24	SUKHOI SUPERJET 100; AIRBUS A330-300	Russian Federation	EUR/NAT	GCOL	Substantial	None	-	-	-
2025-09-30	AIRBUS A321-200	United States	NACC	TURB	None	Serious	-	1	1
2025-10-01	BOMBARDIER CL600 2D24; BOMBARDIER CL600 2D24	United States	NACC	GCOL	Substantial	Minor	-	-	1
2025-10-12	BOEING 737-800	Poland	EUR/NAT	EVAC	None	Serious	-	1	-

Appendix 2

Local Date	Aircraft Make/Model/ Master series	State/Area of Occurrence	ICAO Region	Occurrence category	Highest damage	Injury Level	Total fatalities	Total serious injuries	Total minor injuries
2025-10-16	BOEING 737-8	United States	NACC	MAC	Substantial	Minor	-	-	1
2025-10-24	AIRBUS A319-100	United Kingdom	EUR/NAT	RAMP	None	Serious	-	1	-
2025-11-01	BOEING 737-800	Japan	APAC	WSTRW	Substantial	None	-	-	-
2025-11-14	AIRBUS A350-900	Singapore	APAC	TURB	None	Serious	-	1	-
2025-11-17	BOEING 737-200	Canada	NACC	SCF-NP	Substantial	None	-	-	-
2025-11-29	EMBRAER ERJ170-200LR; AIRBUS A320-200	United States	NACC	GCOL	Substantial	None	-	-	-
2025-12-08	BOEING 737-800	United Kingdom	EUR/NAT	RAMP	Substantial	None	-	-	-
2025-12-08	EMBRAER ERJ190-100	Japan	APAC	TURB	None	Serious	-	1	-
2025-12-22	BOEING 787-9	Japan	APAC	TURB	None	Serious	-	1	-
2025-12-28	BOEING 737-8	France	EUR/NAT	TURB	None	Serious	-	2	-

Appendix 3

CICTT Aviation Occurrence Categories (May 2021)[12]

Code	Description
ADRM	**Aerodrome:** Occurrences involving Aerodrome design, service, or functionality issues.
AMAN	**Abrupt Maneuver:** The intentional abrupt maneuvering of the aircraft by the flight crew.
ARC	**Abnormal runway contact:** Any landing or takeoff involving abnormal runway or landing surface contact.
ATM	**ATM/CNS:** Occurrences involving Air Traffic Management (ATM) or Communication, Navigation, Surveillance (CNS) service issues.
BIRD	**Bird:** Occurrences involving collisions/near collisions with bird(s).
CABIN	**Cabin safety events:** Miscellaneous occurrences in the passenger cabin of transport category aircraft.
CFIT	**Controlled flight into/towards terrain:** In-flight collision or near collision with terrain, water, or obstacle without indication of loss of control.
CTOL	**Collision with obstacles during takeoff and landing:** Collision with obstacle(s) during takeoff or landing while airborne.
EVAC	**Evacuation:** Occurrence in which either, (a) a person(s) was/were injured during an evacuation, (b) an unnecessary evacuation was performed, (c) evacuation equipment failed to perform as required, or (d) the evacuation contributed to the severity of the occurrence.
EXTL	**External load related occurrence:** Occurrences during or as a result of external load or external cargo operations.
FUEL	**Fuel related:** One or more powerplants experienced reduced or no power output due to fuel exhaustion, fuel starvation/mismanagement, fuel contamination/wrong fuel, or carburetor and/or induction icing.
F-NI	**Fire/smoke (non-impact):** Fire or smoke in or on the aircraft, in flight, or on the ground, which is not the result of impact.

[12] ICAO and the Commercial Aviation Safety Team (CAST). Aviation Occurrence Categories, Definitions and Usage Notes. Available at https://www.intlaviationstandards.org/Documents/OccurrenceCategoryDefinitions.pdf. Accessed on 16 May 2025.

Code	Description
F-POST	**Fire/smoke (post-impact):** Fire/Smoke resulting from impact.
GCOL	**Ground collision:** Collision while taxiing to or from a runway in use.
GTOW	**Glider towing related events:** Premature release, inadvertent release or non-release during towing, entangling with towing, cable, loss of control, or impact into towing aircraft/winch.
ICE	**Icing:** Accumulation of snow, ice, freezing rain, or frost on aircraft surfaces that adversely affects aircraft control or performance.
LALT	**Low altitude operations:** Collision or near collision with obstacles/objects/terrain while intentionally operating near the surface (excludes takeoff or landing phases).
LOC-I	**Loss of control in-flight:** Loss of aircraft control while, or deviation from intended flightpath, in flight. Loss of control inflight is an extreme manifestation of a deviation from intended flightpath. The phrase “loss of control” may cover only some of the cases during which an unintended deviation occurred.
LOC-G	**Loss of control-ground:** Loss of aircraft control while the aircraft is on the ground.
LOLI	**Loss of lifting conditions enroute:** Landing en route due to loss of lifting conditions.
MAC	**Airprox/ ACAS alert/ loss of separation/ (near) mid-air collisions:** Air proximity issues, Traffic Collision Avoidance System (TCAS)/Airborne Collision Avoidance System (ACAS) alerts, loss of separation as well as near collisions or collisions between aircraft in flight.
MED	**Medical:** Occurrences involving illnesses of persons on board an aircraft.
NAV	**Navigation errors:** Occurrences involving the incorrect navigation of aircraft on the ground or in the air.
OTHR	**Other:** Any occurrence not covered under another category.
RAMP	**Ground handling:** Occurrences during (or as a result of) ground handling operations.
RE	**Runway excursion:** A veer off or overrun off the runway surface.

Code	Description
RI	**Runway incursion:** Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
SEC	**Security related:** Criminal/Security acts which result in accidents or incidents (per Annex 13 to the Convention on International Civil Aviation).
SCF-NP	**System/component failure (non-powerplant):** Failure or malfunction of an aircraft system or component other than the powerplant.
SCF-PP	**System/component failure (powerplant):** Failure or malfunction of an aircraft system or component related to the powerplant.
TURB	**Turbulence encounter:** In-flight turbulence encounter.
UIMC	**Unintended flight in IMC:** Unintended flight in Instrument Meteorological Conditions (IMC).
UNK	**Unknown or undetermined:** Insufficient information exists to categorize the occurrence.
USOS	**Undershoot/overshoot:** A touchdown off the runway/helipad/helideck surface.
WILD	**Wildlife:** Collision with, risk of collision, or evasive action taken by an aircraft to avoid wildlife on the movement area of an aerodrome or on a helipad/helideck in use.
WSTRW	**Wind shear or thunderstorm:** Flight into wind shear or thunderstorm.

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