



Safety Report



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Published in Montréal, Canada

International Civil Aviation Organization 999 Robert-Bourassa Boulevard Montréal, Quebec, Canada H3C 5H7

www.icao.int

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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 was based on the Official Airline Guide (OAG) combined with internal ICAO big data preliminary estimates.



Coordinated, Risk-based Approach to Improving Global Aviation Safety

The air transport industry plays a significant role in global economic activity and development. One of the key elements to maintaining the vitality of civil aviation is to ensure safe, secure, efficient and environmentally sustainable operations at the global, regional and national levels.

A specialized agency of the United Nations, the International Civil Aviation Organization (ICAO) was established in 1944 to promote the safe and orderly development of international civil aviation throughout the world.

ICAO promulgates Standards and Recommended Practices (SARPs) to facilitate harmonized regulations in aviation safety, security, efficiency and environmental protection on a global level. Today, ICAO manages over 12 000 SARPs across 19 Annexes and seven Procedures for Air Navigation Services (PANS) to the Convention on International Civil Aviation (Chicago Convention), many of which are constantly evolving in tandem with the latest developments and innovations. ICAO also serves as the primary forum for cooperation in all fields of civil aviation among its 193 Member States.

Enhancing global civil aviation safety is one of ICAO's five comprehensive Strategic Objectives. The Organization works constantly to address and enhance global aviation safety through the following coordinated activities:

- Policy and standardization:
- Monitoring of key safety trends and safety performance indicators;
- Specific programmes to address safety issues; and
- Implementation support.

The Global Aviation Safety Plan (GASP, Doc 10004) presents the global strategy for the continuous improvement of aviation safety. The purpose of the GASP is to continually reduce fatalities, and the risk of fatalities, by guiding the development of a harmonized aviation safety strategy.

This edition of the safety report provides accident statistics and analysis for the year 2023. Results of analyses from the 2019–2023 safety reports are used as benchmarks for comparison; however, it should be noted that the data presented in this report may not exactly match earlier editions due to updates made during the intervening period.



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Executive Summary

2023 was the safest year in the past five years in terms of safety indicators such as global accident rate, number of fatal accidents, total fatalities and fatality rate. Figure 1 provides a 2023 safety overview for scheduled commercial operations involving aircraft with a certified maximum take-off weight (MTOW) over 5 700 kg.

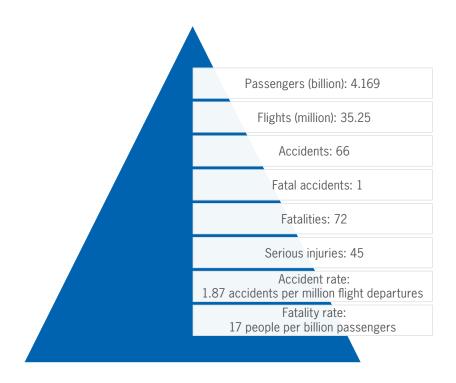


Figure 1. | Safety Overview 2023

According to ICAO big data, as indicated in Chart 1, the global passenger traffic continued to increase in 2023 with around 4.2 billion passengers transported worldwide, up from 3.2 billion passengers in 2022. Although still slightly below pre-pandemic (2019) levels with 4.5 billion passengers having been transported worldwide, passenger traffic in 2023 increased 30 per cent from 2022. As indicated in Chart 2, the number of flight departures for scheduled commercial operations continued to increase by approximately 13 per cent with over 35 million departures in 2023, compared to around 31 million in 2022.

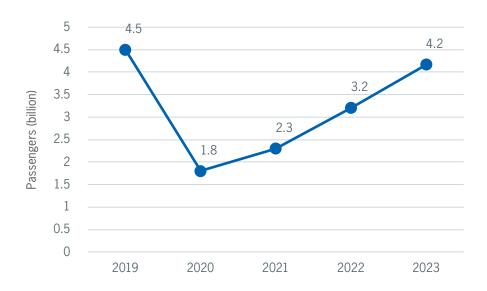


Chart 1. Global traffic of passengers (billion)

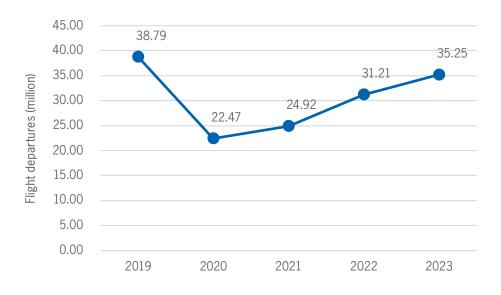


Chart 2. Global traffic of flight departures (million)

Yearly accident statistics shown in Chart 3 indicate a slight increase in the total number of accidents and a decrease in the global accident rate in 2023. From 2022 to 2023, there was a 3.1 per cent increase in the total number of accidents, as reported by States, noting that the flight departures increased around 13 per cent during the same period of time. The global accident rate of 1.87 accidents per million departures in 2023 decreased by 17.9 per cent from the 2022 rate of 2.05 accidents per million departures. As defined in ICAO Annex 13 — Aircraft Accident and Incident Investigation, the accidents used for these statistics were reviewed, validated and verified by the ICAO Occurrence Validation Study Group (OVSG), and involved scheduled commercial operations of aircraft with a MTOW over 5 700 kg.

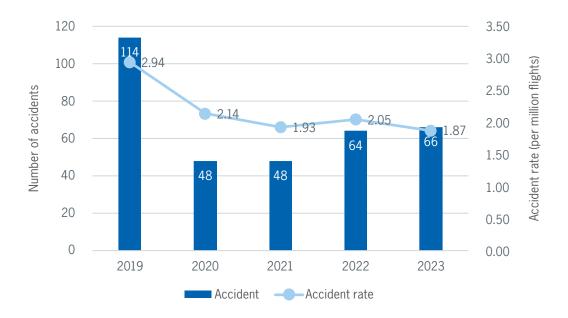


Chart 3. Accident records: 2019–2023 scheduled commercial operations

In 2023, scheduled commercial air transport accidents resulted in 72 fatalities representing a more than 50 per cent decrease from 160 in 2022, as well as a decrease in fatality rate of 17 people per billion passengers from 50 per billion in 2022. The number of fatal accidents significantly decreased from seven in 2022, to one in 2023. Table 1 and Figure 2 show the number of fatal accidents and associated fatalities by area of accreditation of ICAO regional office.

Table 1. Number of fatal accidents and fatalities by ICAO region in 202	Table 1.	Number	of fatal	accidents	and fatalities	by ICAO	region in	2023
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ICAO Region	Number of fatal accidents	Number of fatalities
Asia and Pacific (APAC)	1	72
Eastern and Southern Africa (ESAF)	Nil	Nil
Europe and North Atlantic (EUR/NAT)	Nil	Nil
Middle East (MID)	Nil	Nil
North America, Central America and Caribbean (NACC)	Nil	Nil
South America (SAM)	Nil	Nil
Western and Central Africa (WACAF)	Nil	Nil

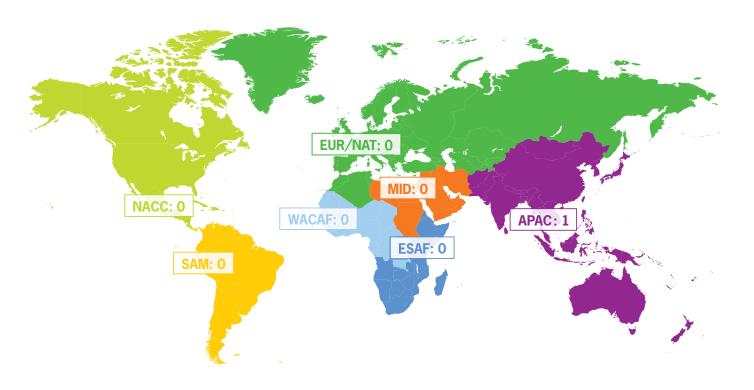


Figure 2. Number of fatal accidents by ICAO region in 2023

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.

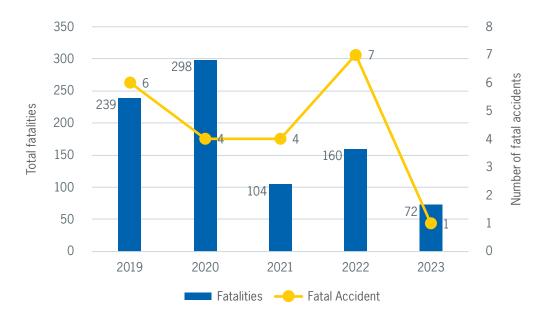


Chart 4. | Fatal accident records: 2019–2023 scheduled commercial operations



Chart 5. Fatality records: 2019–2023 scheduled commercial operations

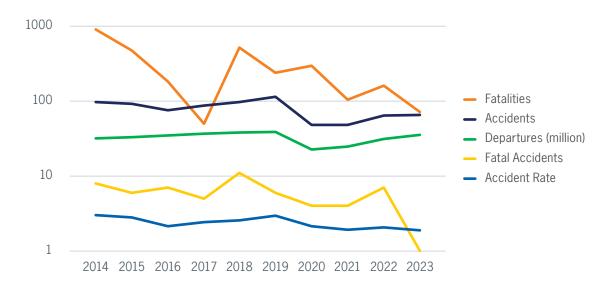


Chart 6. Historical trends for scheduled commercial operations

In response to existing and emerging trends, ICAO is working in partnership with the international aviation community to achieve future safety improvements, with an emphasis on improving safety performance and reducing operational safety risk through the support of standardization, implementation and monitoring. The 2024 edition of the Safety Report provides accident statistics and analyses with reference to the 2019–2023 time period, as well as an update to the GASP indicators linked to Goal 1 and related target.

More information about the GASP Goals and targets can be found at https://www.icao.int/safety/GASP/ Pages/Goals-and-Targets.aspx.

Accident Statistics and Analysis -Scheduled Commercial Air Transport

The safety performance of the GASP is measured by a series of metrics as defined by the GASP indicators set in its 2023-2025 edition. Goal 1 of the GASP is to achieve a continuous reduction of operational safety risks. This reduction is achieved by a series of actions targeting the global high-risk categories of occurrences (G-HRCs). The target associated with this goal (Target 1.1) calls for the decrease of the global accident rate for commercial scheduled operations. Several indicators are linked to this target including number of accidents, fatal accidents and fatalities by State, region or globally, as well as accident rates (i.e. number of occurrences per million departures). GASP indicators also include the percentage of occurrences related to the HRCs.

Overall Safety Performance Indicator - Global Accident Rate

The global accident rate provides an overall indicator of safety performance for air transport operation. The accident rate is based on scheduled commercial operations involving fixed-wing aircraft with a certified MTOW over 5 700 kg. Aircraft accidents are reviewed and validated by the ICAO Occurrence Validation Study Group (OVSG) using definitions provided in Annex 13 — Aircraft Accident and Incident Investigation.

Data on departures is collated by ICAO's Air Transport Bureau and comprises scheduled commercial operations that involve 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 cause slight changes to the calculated rates from year to year.

Chart 7 below shows the global accident rate trend (per million departures) over the previous five years. with 2023 having an accident rate of 1.87 accidents per million departures, a decrease of 17.9 per cent from the previous year, the lowest in the past five years.

Accidents involving scheduled commercial operations of aircraft with a certified MTOW over 5 700 kg in 2023 are listed in Appendix 2.

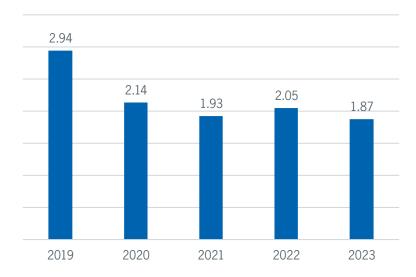


Chart 7. Global accident rates (accidents per million departures)

Accident and Fatality Trend

The number of worldwide accidents and fatal accidents on scheduled commercial flights during the 2019–2023 period is shown in Chart 8. The year 2023 recorded the lowest fatal accidents in the past five years.

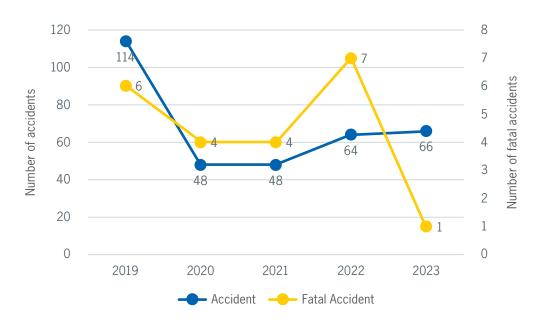


Chart 8. Accident trend (2019–2023)

Between the years 2019 to 2023, the trend of the annual number of accidents decreased. The highest count recorded within this period was in 2019, with 114 accidents. The number of accidents significantly decreased in both 2020 and 2021; however, it is worth noting that during this time there was a significant decrease in traffic of passengers and flights due to measures placed by governments aimed at minimizing the spread of COVID-19. In 2022, as the pandemic restrictions were lifted, air transport began its way to recovery. In 2023, the traffic of passengers and flights continued to increase, meanwhile, the number of accidents only slightly increased and the number of fatal accidents significantly decreased. Chart 9 shows the number of fatalities associated with the afore-mentioned fatal accidents decreased from 160 in 2022 to 72 in 2023. The year 2023 recorded the lowest fatalities in the past five years.

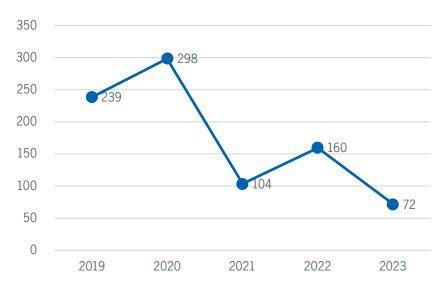


Chart 9. Fatalities trend (2019–2023)

Accidents Overview by Occurrence Category

ICAO Member States are required to report accidents and serious incidents in accordance with Annex 13 through the ICAO Accident/Incident Data Reporting (ADREP) system. The OVSG validates and categorizes the accidents for commercial operations, including scheduled and nonscheduled, involving aircraft with a certified MTOW over 5 700 kg using the ADREP taxonomy (https://www.icao.int/safety/airnavigation/AIG/Pages/ADREP-Taxonomies.aspx) and the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team (CICTT) taxonomy for occurrence categories. Detailed information about the CICTT occurrence categories can be found in Appendix 3.

<u>Charts 10, 11</u> and <u>12</u> provide an overview of the accidents in 2023 for scheduled commercial operations by CICTT occurrence categories. <u>Chart 10</u> indicates that the turbulence encounter (TURB) occurrence category accounted for the most accidents followed by abnormal runway contact (ARC) related accidents. The cumulative line indicates the total percentage of accidents as the occurrence categories are added from left to right, i.e. the total number of accidents related to TURB and ARC represented around half of total accidents in 2023. There was one loss of control inflight (LOC-I) related fatal accident that resulted in all the fatalities in 2023 as indicated in <u>Chart 11</u>. <u>Chart 12</u> shows aircraft damage by occurrence category.

Two airplanes were destroyed, one resulting from a loss of control on ground (LOC-G) accident and the other a LOC-I accident, eight airplanes sustained substantial damage from accidents related to ARC and other accidents causing substantial damage to aircraft involved the following occurrence categories: aerodrome (ADRM); bird strike (BIRD); ground collision (GCOL); LOC-G; LOC-I; ground handling (RAMP); system/component failure or malfunction (non powerplant) (SCF-NP); and wind shear or thunderstorm (WSTRW).

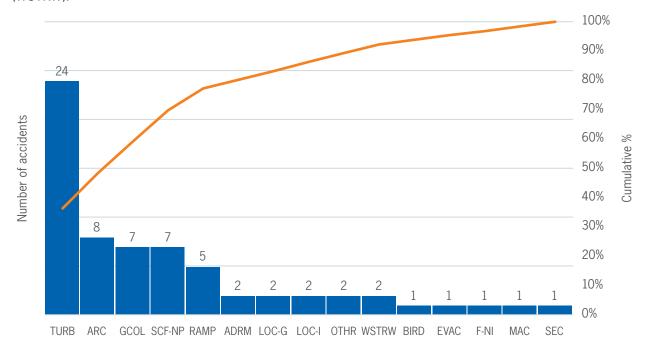


Chart 10. Total accidents by occurrence category in 2023

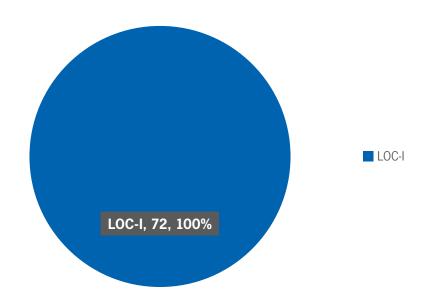


Chart 11. Total fatalities by occurrence category in 2023

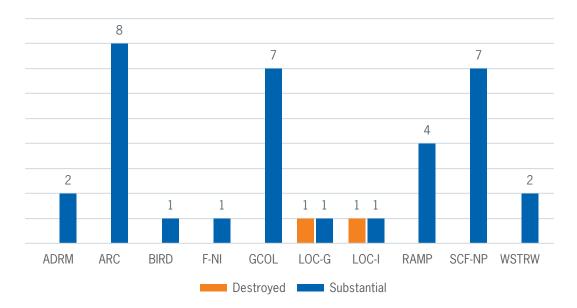


Chart 12. Aircraft damage by occurrence category in 2023

Note 1.— The statistics for this section are based on the primary occurrence category of the accident if a series of categories were identified for this accident by the OVSG.

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

Global High-risk Categories of Occurrence

In the GASP, ICAO identifies a series of global high-risk categories of occurrence (G-HRCs) that should be addressed to mitigate the risk of fatalities.

Based on actual fatalities, high fatality risk per accident or the number of accidents and incidents, as well as results from the analysis of safety data collected from proactive and reactive sources of information from ICAO and other non-governmental organizations, ICAO has identified five G-HRCs as global safety priorities in the 2023–2025 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).

Chart 13 below shows that in 2023, the five G-HRCs for scheduled commercial air transport operations represented 100 per cent of fatalities, 100 per cent of fatal accidents, and 9 per cent of the total number of accidents.

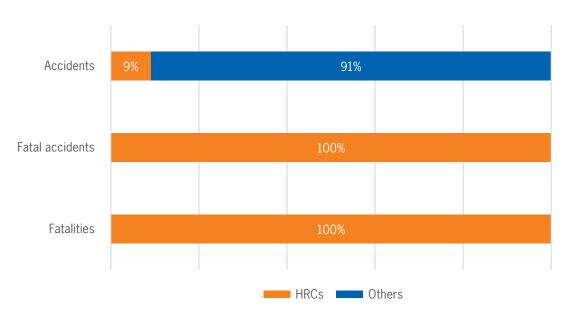


Chart 13. G-HRCs accident distribution in 2023

A breakdown of the five G-HRCs and the respective distribution of accidents, fatal accidents and fatalities which occurred in 2023 are listed below and illustrated in Chart 14.

- Two accidents related to LOC-I accounting for 3 per cent of total accidents. and one of these accidents resulted in 100 per cent of total fatal accidents and 100 per cent of total fatalities.
- One accident related to MAC accounting for 2 per cent of total accidents.
- There was no accident related to CFIT, RI and RE for scheduled commercial operations involving aircraft with a certified MTOW over 5 700 kg.

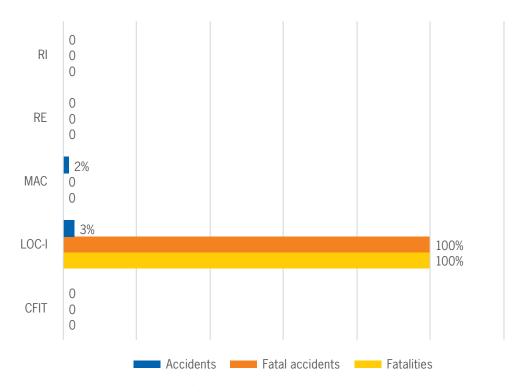


Chart 14. G-HRCs accident overview for 2023

Regional Accident Statistics

To further analyze the state of aviation safety, the accident data for scheduled commercial air transport operations is categorized according to ICAO region based on the contracting States accredited to each ICAO regional office, by State of Occurrence. Table 2 and Chart 15 provide details on the state of aviation safety in different regions for 2023 in the context of global outcomes. The States included in each ICAO region used in this report can be found in Appendix 1.

Table 2. Departures, accidents and fatalities by ICAO region based on State of Occurrence in 2023

		Estimated departures	Number of accidents	Accident rate (per million departures)	Fatal accidents	Fatalities	Serious injuries
	APAC	11 605 780	12	1.03	1	72	13
egion	ESAF	779 346	3	3.85	-	-	3
ICAO Region	EUR/NAT	8 730 055	12	1.37	-	-	2
<u>'C</u>	MID	1 330 807	-	-	-	-	-
	NACC	10 710 333	34	3.17	-	-	21
	SAM	1 830 192	1	0.55	-	-	1
	WACAF	264 246	1	3.78	-	-	-
	International water	-	3	-	-	-	5
	World	35 250 759	66	1.87	1	72	45

It is worth noting that these statistics are based on ADREP data reported by the State of Occurrence in 2023. Partly due to the small number of departures, some regions experience a large fluctuation in the accident rate from year to year. For this reason, these numbers should be considered in relation to the total number of accidents to gain an overall perspective. More information about the regional safety trends can be found in the regional safety reports of each ICAO region.

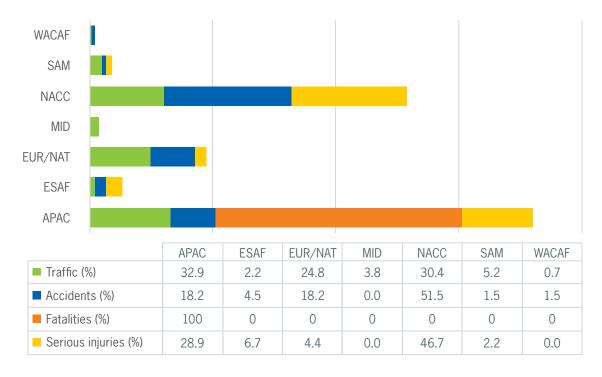


Chart 15. Share of traffic, accidents and fatalities by ICAO region based on State of Occurrence in 2023

Accidents by ICAO Region

Chart 16 shows the percentage of accidents and related fatalities for each ICAO region based on State of Occurrence for scheduled commercial operations in 2023.

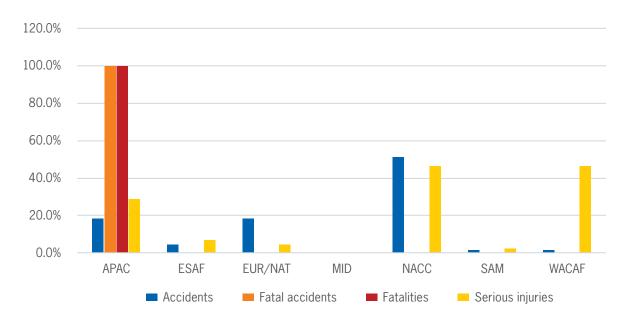


Chart 16. Accident overview by ICAO region in 2023

In 2023, for scheduled commercial operations involving aircraft with a certified MTOW over 5 700 kg, there was only one fatal accident that occurred in the Asia Pacific (APAC) Region, accounting for 100 per cent of the total fatalities. Furthermore, accidents that occurred in the APAC, Eastern and Southern Africa (ESAF), Europe and North Atlantic (EUR/NAT), North America, Central America and Caribbean (NACC) and South America (SAM) Regions did cause substantial damage to airplanes or serious injuries to passengers or crew members.

Appendix 1

ICAO Regions

The ICAO Regions used for statistics in this report are based on the Member States accredited to each ICAO regional office. ICAO maintains seven regional offices to provide closer support and coordination for 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 www.icao.int/secretariat/RegionalOffice/Pages/default.aspx.



APAC (39)				
Afghanistan	Democratic People's	Malaysia	New Zealand	Solomon Islands
Australia	Republic of Korea	Maldives	Pakistan	Sri Lanka
Bangladesh	Fiji	Marshall Islands	Palau	Thailand
Bhutan	India Indonesia	Micronesia (Federated States of)	Papua New Guinea	Timor-Leste
Brunei Darussalam	Japan	Mongolia	Philippines	Tonga
Cambodia	Kiribati	Myanmar	Republic of Korea	Tuvalu
China	Lao People's	Nauru	Samoa	Vanuatu
Cook Islands	Democratic Republic	Nepal	Singapore	Viet Nam

ESAF (24)				
Angola Botswana Burundi Comoros Djibouti EUR/NAT (56)	Eritrea Eswatini Ethiopia Kenya Lesotho	Madagascar Malawi Mauritius Mozambique Namibia	Rwanda Seychelles Somalia South Africa South Sudan	Uganda United Republic of Tanzania Zambia Zimbabwe
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 NACC (22) Antigua and Barbuda Bahamas Barbados Belize Canada	Jordan Kuwait Lebanon Libya Oman Costa Rica Cuba Dominica Dominican Republic El Salvador	Qatar Saudi Arabia Sudan Syrian Arab Republic Grenada Guatemala Haiti Honduras Jamaica	United Arab Emirates Yemen Mexico Nicaragua Saint Kitts and Nevis Saint Lucia	Saint Vincent and the Grenadines Trinidad and Tobago United States

SAM (13)				
Argentina Bolivia (Plurinational State of)	Brazil Chile Colombia	Ecuador Guyana Panama	Paraguay Peru Suriname	Uruguay Venezuela (Bolivarian Republic of)
WACAF (24)				
Benin Burkina Faso Cameroon Cabo Verde Central African Republic	Chad Congo Côte d'Ivoire Democratic Republic of the Congo Equatorial Guinea	Gabon Gambia Ghana Guinea Guinea-Bissau Liberia	Mali Mauritania Niger Nigeria Sao Tome and Principe	Senegal Sierra Leone Togo

Appendix 2

List of accidents involving scheduled commercial operations of aircraft with a certified MTOW over 5 700 kg in 2023

With a cc	i dilica Pirrovv o	ver o 700 kg iii	2020				
Local date	Manufacturer/ model	State of Occurrence	ICAO region	Occurrence category	Highest damage	Total fatali- ties	Total serious injuries
2023-01-01	BOEING 737-8 Max	Canada	NACC	RAMP	Substantial	-	-
2023-01-02	BOMBARDIER CL-600- 2D24; AIRBUS A330	United States	NACC	GCOL	Substantial	-	-
2023-01-02	BOEING 737-800	Netherlands	EUR/NAT	RAMP	Substantial	-	-
2023-01-07	AIRBUS A320-200	Japan	APAC	SEC; EVAC	None	-	1
2023-01-07	BOEING 737-800	Japan	APAC	TURB	None	-	1
2023-01-15	ATR ATR72-200	Nepal	APAC	LOC-I; F-POST	Destroyed	72	-
2023-01-21	BOEING 737-800	Germany	EUR/NAT	OTHR	None	-	1
2023-01-22	AIRBUS A350-1000	North Atlantic Ocean	Other	TURB	None	-	1
2023-01-25	BOEING 767-300	Japan	APAC	GCOL; ADRM		-	-
2023-01-29	AIRBUS A320-200	Democratic Republic of the Congo	WACAF	ADRM	Substantial	-	-
2023-02-10	BOEING 737-800	United States	NACC	TURB	Substantial	-	1
2023-02-16	AIRBUS A319-132	United States	NACC	TURB	None	-	1
2023-02-24	EMBRAER ERJ 190-100 IGW	United States	NACC	RAMP	None	-	1
2023-03-02	AIRBUS A330-900	Seychelles	ESAF	TURB	None	-	3
2023-03-02	AIRBUS A320-200	United States	NACC	TURB	None	-	1
2023-03-15	AIRBUS A319-100	Colombia	SAM	TURB	None	-	1
2023-03-21	BOEING 777-200	United States	NACC	TURB	None	-	1
2023-03-22	AIRBUS A320-200	United States	NACC	ARC	None	-	-
2023-03-31	AIRBUS A320-200	Mexico	NACC	RAMP	Substantial	-	-
2023-04-09	BOEING 737-800	Ireland	EUR/NAT	ARC	Substantial	-	-
2023-04-16	SAAB SF340A	Guatemala	NACC	LOC-G; RE	Substantial	-	-
2023-04-21	AIRBUS A320-200	China	APAC	TURB	Substantial	-	1
2023-04-22	BOEING 777-200	United States	NACC	TURB	None	-	1

Local date	Manufacturer/ model	State of Occurrence	ICAO region	Occurrence category	Highest damage	Total fatali- ties	Total serious injuries
2023-05-05	AIRBUS A321-200	United States	NACC	ARC	Substantial	-	-
2023-05-06	BOEING 747-400F	Japan	APAC	ARC	Substantial	-	-
2023-05-10	BOEING 777-300	Thailand	APAC	TURB	None	-	1
2023-05-14	BOEING 747-4R7F	Luxembourg	EUR/NAT	SCF-NP	Substantial	-	-
2023-06-01	BOEING 737-900	United States	NACC	TURB	None	-	1
2023-06-01	AIRBUS A320-200	United States	NACC	TURB	None	-	1
2023-06-05	BOEING 737-800	Canada	NACC	GCOL	Substantial	-	-
2023-06-15	BOEING 777-300	Indian Ocean	Other	TURB	None	-	1
2023-06-18	BOEING 787-9	Republic of Korea	APAC	SCF-NP	Substantial	-	-
2023-06-23	BOEING 777-300	China	APAC	EVAC	None	-	2
2023-06-28	BOEING 717-200	United States	NACC	SCF-NP; ARC	Substantial	-	-
2023-07-11	EMBRAER 120RT	Somalia	ESAF	LOC-G; RE	Destroyed	-	-
2023-07-12	AIRBUS A320-200	United States	NACC	TURB	None	-	2
2023-07-20	AIRBUS A321-200	Canada	NACC	WSTRW	Substantial	-	-
2023-07-23	AIRBUS A320-200	United States	NACC	MAC; ATM; AMAN	None	-	1
2023-07-24	BOEING 767-300	Italy	EUR/NAT	WSTRW	Substantial	-	-
2023-07-24	BOEING 737-700	United States	NACC	TURB	None	-	1
2023-07-28	BOEING 737-900	United States	NACC	TURB	None	-	1
2023-07-29	BOEING 767-300	United States	NACC	ARC	Substantial	-	-
2023-08-03	BOEING 767-300	United States	NACC	SCF-NP	Substantial	-	-
2023-08-07	BOEING 737-800	Indonesia	APAC	ARC	Substantial	-	-
2023-08-09	BOEING 737-700	Canada	NACC	GCOL	Substantial	-	-
2023-08-09	ATR ATR 72-200	Spain	EUR/NAT	ARC	Substantial	-	-
2023-08-14	EMBRAER ERJ 170-100 SE	United States	NACC	TURB	None	-	1
2023-08-18	BOEING 777-200	United States	NACC	TURB	None	-	1
2023-08-20	BOEING 737-800	United States	NACC	SCF-NP	Substantial	-	-
2023-08-29	AIRBUS SAS A350-900	United States	NACC	TURB	None	-	4

Local date	Manufacturer/ model	State of Occurrence	ICAO region	Occurrence category	Highest damage	Total fatali- ties	Total serious injuries
2023-08-30	AIRBUS A321-200	United States	NACC	ARC	Substantial	-	-
2023-08-30	BOEING 777-300; A330-900	France	EUR/NAT	GCOL	Substantial	-	-
2023-09-07	FAIRCHILD SA227-DC	Canada	NACC	LOC-I	Substantial	-	-
2023-09-07	BOEING 737-9 Max	United States	NACC	TURB	None	-	1
2023-09-10	AIRBUS A321-200	Italy	EUR/NAT	OTHR	None	-	1
2023-09-19	BOEING 737-800; BOEING 757-300	Spain	EUR/NAT	GCOL	Substantial	-	-
2023-09-25	AIRBUS A320-200	North Atlantic Ocean	Other	TURB	None	-	3
2023-09-28	BOEING 787-8	United States	NACC	TURB	None	-	1
2023-09-30	BOEING 737-9 Max	United States	NACC	F-NI	Substantial	-	-
2023-10-04	BOEING 737-800	United Kingdom	EUR/NAT	GCOL	Substantial	-	-
2023-10-29	AIRBUS A320-200	Morocco	EUR/NAT	RAMP	Substantial	-	-
2023-10-31	ATR ATR72-600	United Kingdom	EUR/NAT	SCF-NP	Substantial	-	-
2023-11-28	EMBRAER EMB-120ER	United Republic of Tanzania	ESAF	ADRM; RE	Substantial	-	-
2023-12-04	AIRBUS A380-800	Maldives	APAC	TURB	None	-	7
2023-12-08	SAAB 340B	Tonga	APAC	SCF-NP; GCOL	Substantial	-	-
2023-12-19	BOEING 737-800	United States	NACC	BIRD	Substantial	-	-



Appendix 3

CICTT Aviation Occurrence Categories (December 2017)

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.

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.





SAFETY

International Civil Aviation Organization 999 Boulevard Robert-Bourassa Montréal, QC, Canada H3C 5H7

Tel.: +1 514-954-8219 Fax: +1 514-954-6077 Email: info@icao.int

