2024
ANNUAL SAFETY REPORT

JAMAICA CIVIL AVIATION AUTHORITY

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Foreword

The air transport industry plays a significant role in Jamaica's economic activity and development. A key factor for maintaining a vital civil aviation sector is to ensure safe, secure, efficient and environmentally sustainable operations at the global, regional and national levels.

The Jamaica Civil Aviation Authority ("The Authority" or the "JCAA") is a portfolio entity of the Government of Jamaica's Ministry of Science, Energy, Telecommunications and Transport (MSETT). The Authority is responsible for the regulation and oversight of Jamaica's civil aviation industry. The Authority's mission is: "To ensure that the public is provided with a safe, reliable, efficient and user-friendly Air Transport system, being cognizant of the standards and recommended practices developed by the International Civil Aviation Organization".

The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations, it was established in 1944 to promote the safe and orderly development of civil aviation throughout the world. Today, ICAO manages over 12,000 Standards and Recommended Practices (SARPs) related to the Convention on International Civil Aviation (Chicago Convention), its 19 Annexes, and seven related Procedures for Air Navigation Services (PANS). The ICAO Standards and Recommended Practices are both part of the framework, that is used by ICAO to promote harmonisation in international aviation. The ICAO SARPs are therefore, dynamic and constantly evolving in tandem with the latest developments and innovations in the air transport industry. As a Member State (one of one hundred and ninety-three (193) Contracting States to The Chicago Convention), Jamaica is expected to conform to and incorporate the ICAO Standards into the local regulatory framework and to pursue the implementation of the ICAO Recommended Practices which are desirable in the interest of safety, regularity and efficiency in air transport. Enhancing civil aviation safety is the fundamental strategic objective.

The JCAA in collaboration with international and regional partners like ICAO and the Caribbean Aviation Safety and Security Oversight System (CASSOS) work to continuously enhance global aviation safety through the following coordinated activities:

1. Policy development, implementation and standardization;
2. Monitoring key safety trends and safety performance indicators (SPIs) and the exchange of safety data;
3. Development and implementation of specific programmes to address safety issues; and
4. Support for implementation within Member States and regions.

The National Aviation Safety Plan (NASP) for Jamaica presents the national strategic policy for the continuous improvement of aviation safety. The purpose of the NASP is to continually foster the reduction in fatalities, accidents and serious incidents and their associated risks, by guiding the development of a harmonized national aviation safety strategy. Jamaica's NASP can be found on the JCAA website at https://www.jcaa.gov.jm/index.php/regulatory-affairs/safety-and-security-oversight/

Executive Summary

The aviation safety landscape in Jamaica for the calendar year 2024 featured varied incidents across different sectors of air transport. This report offers the safety data, with analysis of the trends. The safety priorities for the industry are also included, reflecting the persistent efforts to ensure the safety and security of civil aviation operations. Safety data from 2019 was used as a baseline for benchmarking in the analysis of safety trends through to 2024.

Following the severe curtailment of aviation activity in 2020 due to the COVID-19 pandemic, aviation activity has steadily increased in the ensuing years. Jamaica surpassed pre-pandemic levels in 2023 and the aviation sector continued to grow in 2024. For Calendar Year 2024 there was a 3.3% growth rate over 2023 levels. Since 2019 there has been an average growth rate of 7.4%.

The accident rate per million aircraft movements saw a noticeable increase in 2024. For commercial air transport with a Maximum Take-off Weight (MTOW) exceeding 5,700 kg, one accident occurred in November 2024. Two (2) accidents occurred within the general aviation sector in 2024. Deliberations on the increase in the accident rate must factor the nature of the accidents that occurred during the year. The section of this report on accident data provides additional details.

The National Aviation Safety Plan (NASP) (2024-2026) for Jamaica identifies several high-risk categories of occurrences (N-HRCs) for prioritization. In 2024, a total of One Hundred and Thirty-Nine (139) occurrences were captured by the JCAA through mandatory and voluntary reporting. This was a 26.4% increase in the number of reports compared to 2023. This speaks to the increased priority placed to the reporting, collation and analysis of occurrence repots. The occurrence data included in this report has been categorized according to the ICAO Common Taxonomy for aviation occurrences and the four (4) National High Risk Categories of aviation occurrences being monitored by Jamaica under the National Aviation Safety Plan. The four (4) N-HRCs are being actively monitored and analyzed for trends related to potential aviation safety risks.

Accident Data

Annual accident data indicate a rise in occurrences for 2024 when compared to previous years. The analysis of the safety record for 2024 revealed that the accidents were comparatively minor and did not compromise the overall safety environment or highlight widespread systemic risks. Jamaica continues to maintain an extremely low fatality rate.

Fatalities

There were **zero (0)** fatalities related to aviation accidents recorded in Jamaica for the calendar year 2024. This is a lower result than the **one (1)** fatality recorded for calendar year 2023. **Figure 1 (Jamaica's Accident and Fatalities Data 2019-2024)** below provides information on the accident and fatality records from 2019 to 2024.

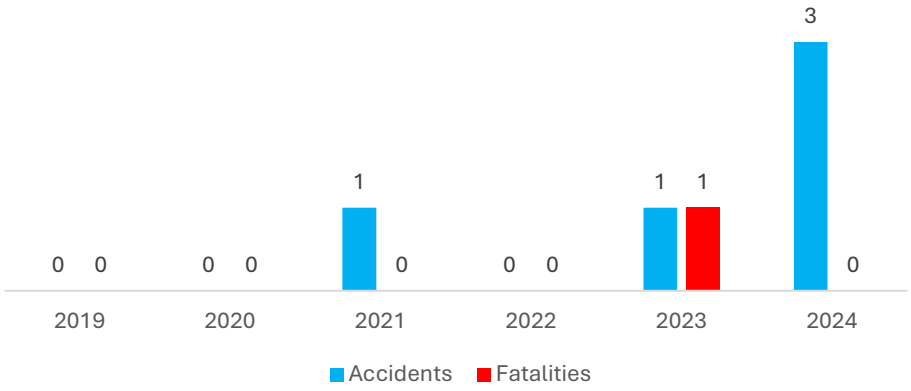

Figure 1: Jamaica's Accident and Fatality Records 2019 – 2024

2024 Accidents

Commercial Air Transport MTOW over 5700 kg

For the calendar year 2024 there was **one (1)** accident involving commercial air transport aircraft with a Maximum Take Off Weight in excess of 5,700 kg.

In November 2024 a commercial passenger aircraft, with the State of Registry as the United States of America, flying from Rio De Janeiro, Brazil, to Houston, United States while overflying Jamaica's airspace, experienced turbulence. This encounter resulted in a serious injury to one (1) occupant of the aircraft. Given the nature of this occurrence the United States National Transport Safety Board is currently conducting a "Limited Class 4 Investigation" into the incident.

Commercial Air Transport MTOW below 5700 kg

For the calendar year 2024 there were **zero (0)** accidents involving commercial air transport aircraft with a Maximum Take Off Weight of 5,700 kg or lower.

General Aviation Operations

For the calendar year 2024 there were **two (2)** accidents involving general aviation operations.

In January 2024, an aircraft of unknown make, registration or origin was discovered severely burnt at an unregulated airstrip in the parish of St. Elizabeth. There is a lack of information related to this occurrence. The accident investigation was unable to determine the cause of the accident. The final report can be found on the JCAA website at https://www.jcaa.gov.jm/wp-content/uploads/2024/07/2024-Jan-6-JA-2024-01-Final-Report-1.pdf

In August 2024 a Piper PA-34 registration N51157 on a domestic flight departing Sangster International Airport for arrival at Tinson Pen Aerodrome, experienced a runway excursion. Upon arrival at the Tinson Pen Aerodrome, the aircraft flipped over and came to rest beside an aircraft hangar. The accident investigation to determine the cause and contributing factors is in progress. The preliminary report can be found on the JCAA website at https://www.jcaa.gov.jm/wp-content/uploads/2024/08/Prelim-Report-N51157-accident-at-TPN.-R1-2.pdf

Accidents (2019 to 2023)

There were zero (0) accidents and zero (0) fatalities recorded for the prior years 2019, 2020 and 2022.

In 2021 a Sabre 60 aircraft registered XBJMR was on a private domestic flight plan in Mexico. For reasons unknown, entered Jamaica's airspace without ATC contact and crashed in the Portland Cottage Clarendon. The final report is available on the JCAA website at https://www.jcaa.gov.jm/wp-content/uploads/2024/02/2021-Jan-23-XBJMR-Final-Report.pdf

In 2023 a Univair Aircraft Corporation ERCO 415-C registered N3254B on a private domestic flight between Tinson Pen and Ian Fleming International Airport crashed in St. Mary. While work continues on the final report an updated report is available on the JCAA website at https://www.jcaa.gov.jm/wp-content/uploads/2024/06/N3254B-AIRCRAFT-ACCIDENT-INVESTIGATION-UPDATE.pdf

Flight Movement

Below, **Figure 2 (Total Aircraft Movement in Jamaica 2019-2024)** provides the flight movement data for overflights, inbound, outbound and domestic flights in Jamaica over the period 2019 through 2024. Following the severe dip in travel in 2020 due to the Covid-19 pandemic, flight movement has steadily recovered, surpassing pre-covid levels. For Calendar Year 2024 there was a 3.3% growth rate over 2023 levels. Since 2019 there has been an average growth rate of 7.4%.

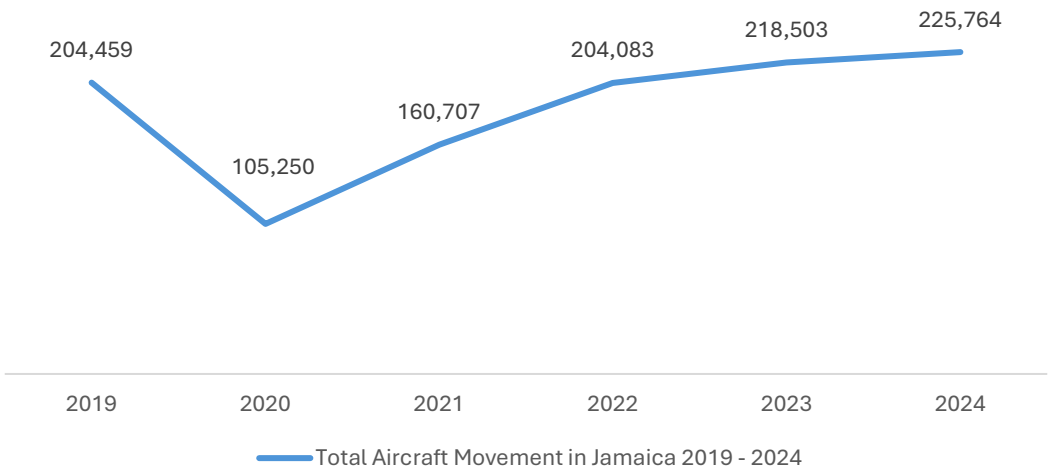

Figure 2: Total Aircraft Movement in Jamaica (2019 – 2024)

Jamaica's Aircraft Accident Rate

The accident rate per million aircraft movements from 2019 to 2024 shows a significant increase for 2024 (13.29) when compared to 2023 (4.58). The average had been 2.16 over the previous five (5) years (2019 through 2023). This increase is, however, within the context of the types of accidents that occurred in the year, reflected as low severity occurrences. **Figure 3 (Jamaica's Accident Rate 2019-2024)** illustrates the comparison.

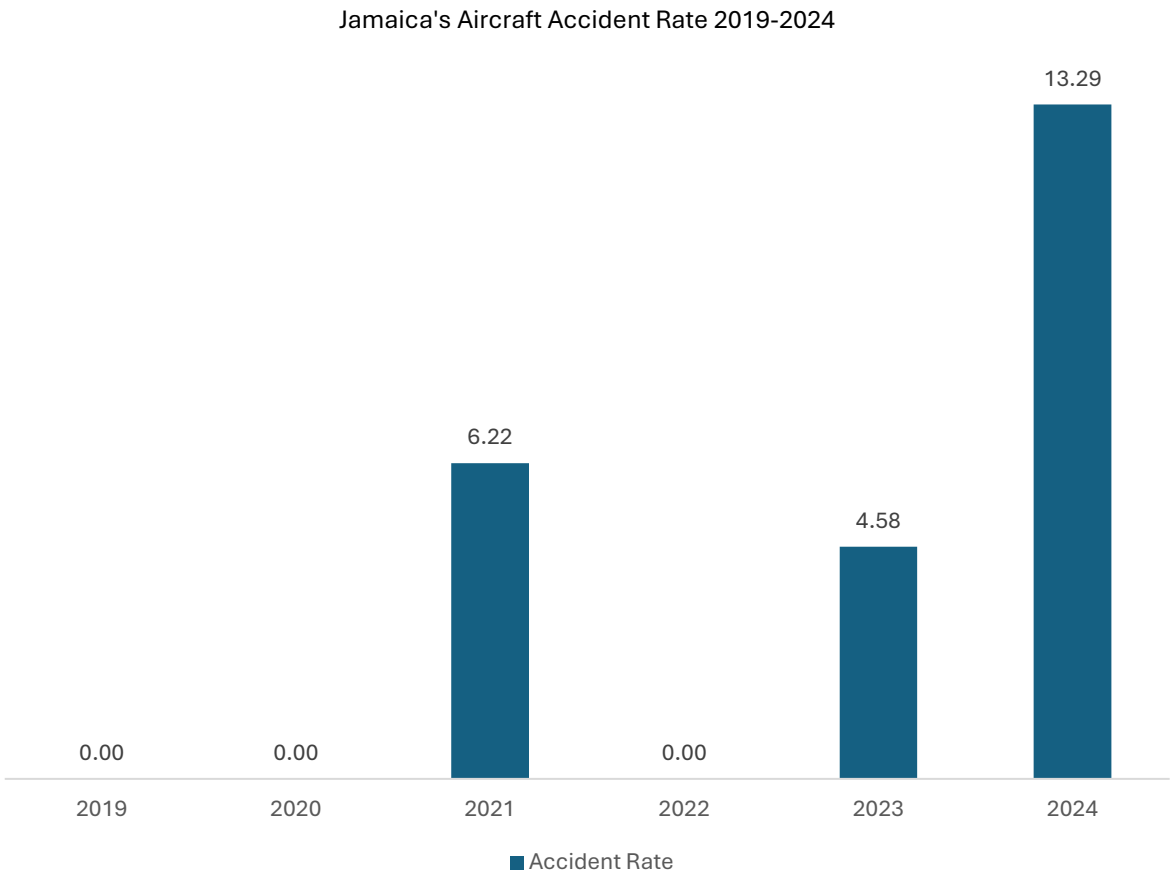

Figure 3: Jamaica's Aircraft Accident Rate 2019 - 2024

Aviation Occurrence Data

In the 2024 – 2026 edition of the NASP, Jamaica has identified National High-Risk Categories of aviation occurrences (N-HRCs). These N-HRCs are being monitored and addressed to mitigate the risk of accidents. These categories were determined based on trends identified in past accidents, serious incidents and reportable occurrences that have occurred in previous years. The analysis of these safety data collected from proactive and reactive sources of information within the local aviation industry highlighted that the following N-HRCs should be prioritized:

1. Pilot Decision Making;
2. Loss of Aircraft Separation;
3. Aerodrome Infrastructure Deficiencies; and
4. Incursion at Aerodromes;

The data collected by way of mandatory and voluntary occurrence reporting and oversight conducted by the Authority is collated and analysed to determine the impact of the safety occurrences within the N-HRC categories that impact on the safety priorities discussed in the NASP.

For 2024, **One Hundred and Thirty-Nine (139)** mandatory and voluntary occurrences were reported to the Jamaica Civil Aviation Authority from industry. **Appendix 1** provides the **ICAO Common Taxonomy** for aviation occurrences as defined in December 2017.

The four (4) N-HRCs can be further broken down into their taxonomy areas as follows:

Pilot Decision-Making Taxonomy Categories:

1. UIMC – Unintended Flight into Instrument Meteorological Conditions (IMC)
2. LALT – Low Altitude Operations
3. CFIT – Controlled Flight Into Terrain
4. AMAN – Abnormal Maneuvering

Loss of Aircraft Separation Taxonomy Category:

1. MAC – Air Proximity Alert, TCAS, Mid Air Collision

Aerodrome Infrastructure Deficiencies Taxonomy Category:

1. ADRM – Aerodrome

Incursion at Aerodromes Taxonomy Categories:

1. RI – Runway Incursion
2. WILD – Collision or risk of Collision with Wildlife

Figure 4 (2024 Mandatory and Voluntary Reporting Occurrences by Taxonomy Category) shows the breakdown by taxonomy categories of each of the **One Hundred and Thirty-Nine (139)** occurrences reported to the Jamaica Civil Aviation Authority from industry. As highlighted by **Figure 4**, there were **sixteen (16)** or **12%** N-HRC events in the prioritized categories under the NASP.

Figure 5 (Taxonomy Categories by Percentage) presents the taxonomy categories by proportion of total occurrences.

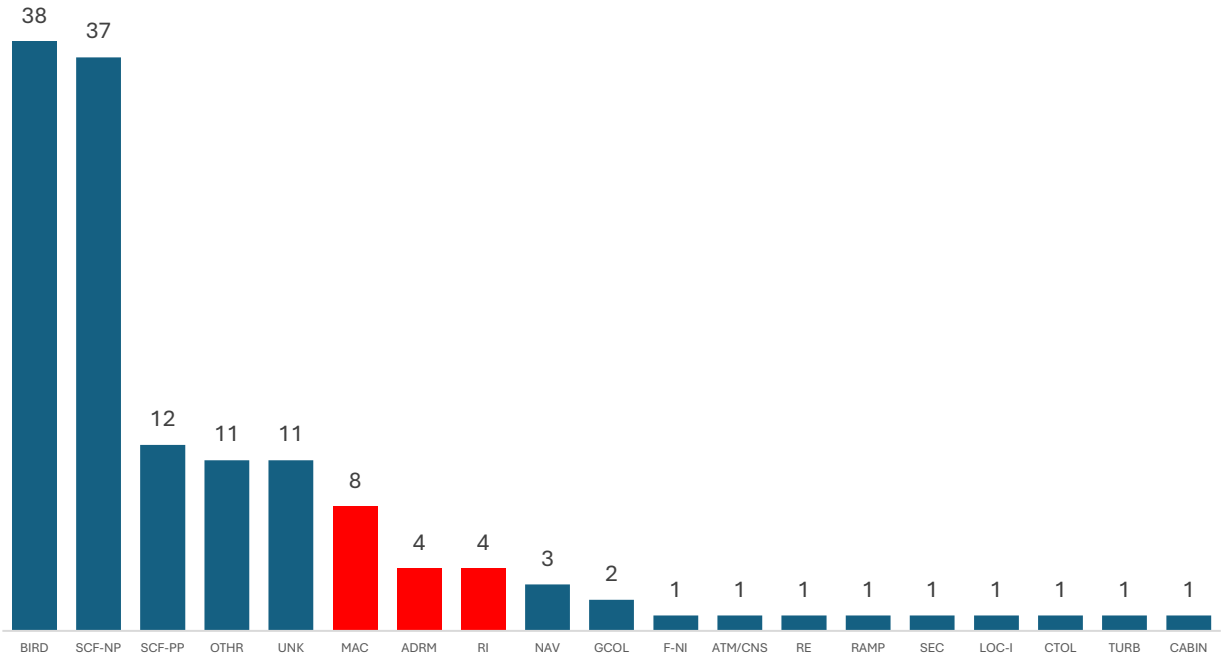

Figure 4: 2024 Mandatory and Voluntary Reporting Occurrences by Taxonomy Category

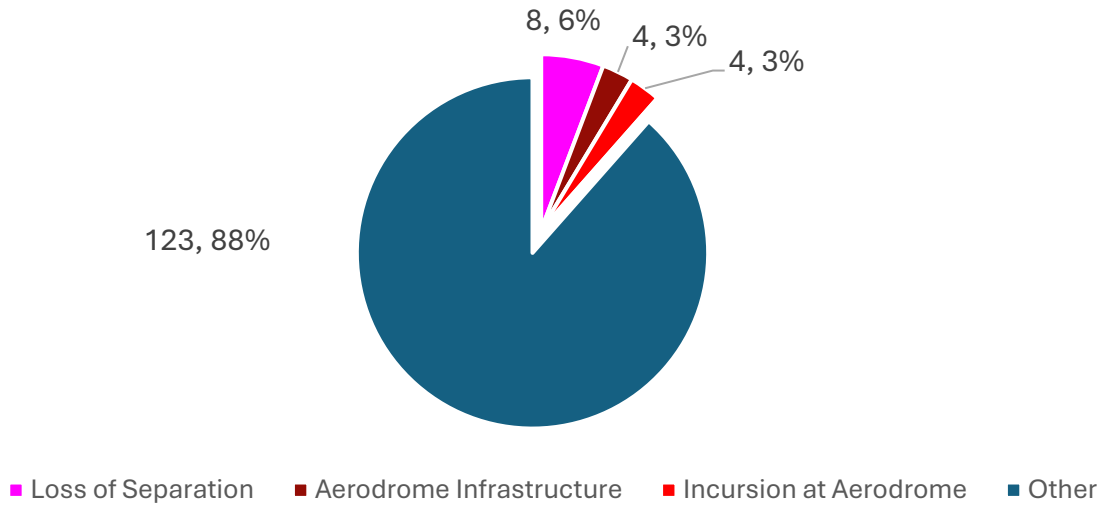

Figure 5 (Taxonomy Categories by Percentage)

Conclusion

Jamaica remains committed to improving aviation safety through proactive measures, incident and trend monitoring, and continuous robust risk mitigation efforts. The aviation safety data collected for 2024 will inform the ongoing development of Jamaica's national strategies to enhance aviation safety, focusing on high-risk occurrences and ensuring alignment with global aviation standards.

While for the calendar year 2024 there has been an increase in accident rate over previous years the accidents that occurred in 2024 where minor in nature and in one instance involved unregulated aircraft operations.

The continuous monitoring of National High-Risk Category (N-HRC) occurrences continue to show that the number of high risk aviation occurrences is within tolerance and has not resulted in an increase in negative safety outcomes industry-wide.

Appendix 1

Commercial aviation safety team ICAO Common Taxonomy Team (CICTT) Aviation Occurrence Categories (December 2017 definitions)

Code	Area	Description
ADRM	Aerodrome	Occurrences involving Aerodrome design, service, or functionality issues
AMAN	Abrupt maneuver	The intentional abrupt manoeuvring of the aircraft by the flight crew
ARC	Abnormal runway contact	Any landing or take-off 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 take-off and landing	Collision with obstacle(s) during take-off 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 carburettor 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
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 take-off or landing phases)

Code	Area	Description
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
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 take-off 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