

JAMAICA

2023 ANNUAL SAFETY REPORT

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Foreword

The air transport industry plays a significant role in Jamaica's economic activity and development. The vitality of the civil aviation industry is maintained by ensuring safe, secure, efficient and environmentally sustainable operations across the industry at the global, regional and national levels. The Jamaica Civil Aviation Authority (The Authority) is the civil aviation industry regulator. Under the Ministry of Science, Energy, Telecommunications and Transport (MSETT), it is the portfolio entity of the Government of Jamaica Ministry responsible for civil aviation. 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".

Jamaica is a Contracting State to the Convention on International Civil Aviation (The Chicago Convention); consequently, Jamaica is one of one hundred and ninety-three (193) Members States of the International Civil Aviation Organization (ICAO). ICAO is the specialized United Nations agency charged with promoting the safe and orderly development of international civil aviation across the world. To this end, today, ICAO, in its harmonisation efforts, manages over 12,000 Standards and Recommended Practices (SARPs) derived from The Chicago Convention, the related 19 Annexes and six (6) Procedures for Air Navigation Services (PANS). Jamaica's obligations as a Contracting State are, therefore, constantly evolving based on the latest developments and innovations in the air transport industry.

The fundamental strategic objective of ICAO, Jamaica as a Contracting State, and the Authority as a Civil Aviation Authority, is the enhancement of safety in civil aviation. Collectively, ICAO and Jamaica through the Authority must work collaboratively with our partners to consistently address and enhance global, regional and national aviation safety through the following coordinated activities:


1. Development, implementation and standardisation of policy;
2. Monitoring of key safety trends and safety performance indicators;
3. Development of specific programmes to address safety issues; and
4. Support for implementation.

**Safe, secure,
efficient and
environmentally
sustainable
operations**

The National Aviation Safety Plan (NASP) presents Jamaica's national strategic policy for the continuous improvement of aviation safety. The purpose of the NASP is to contribute to the continual reduction of aviation related fatalities, accidents and their associated risks, by guiding the development of a harmonised aviation safety strategy. Jamaica's NASP may be found on the Authority's website at <https://www.jcaa.gov.jm/index.php/regulatory-affairs/safety-and-security-oversight/>

This 2024 Annual Safety Report provides the data and analysis on accident, serious incidents and other reportable occurrences for the calendar year 2023. The results of the analysis of Jamaica's aviation safety data from 2018 through to 2023 are presented and used as benchmarks for comparison.

The purpose of this 2024 Aviation Safety Report is to provide a comprehensive overview of the aviation safety performance within Jamaica for the preceding calendar year. This report describes the progress made towards the pursuit and achievement of safety goals and objectives set by Jamaica as included in its National Aviation Safety Plan. It includes information on accidents, other reportable occurrences, safety enhancements, incident reporting systems, safety programmes and initiatives aimed at improving aviation safety. To be produced annually, this report is intended to be a vital tool for monitoring safety trends, identifying safety deficiencies, and implementing measures to enhance safety within Jamaica's aviation sector.



*Initiatives aimed at
improving aviation safety
risk management.*

Executive Summary

Following the severe curtailment of aviation activity in 2020 due to the COVID-19 pandemic, Jamaica has experienced a robust recovery in air transport sector activity. Activity steadily increased in the 2021-2023 period. Jamaica is one of the few States across the globe in which aviation activity for 2023 surpassed pre-pandemic levels. **Chart 1 (Aircraft Movements 2018 - 2023 - Domestic, Inbound, Outbound and Overflights)** below. For 2023, there were 218,503 aircraft movements recorded compared to the pre-pandemic year 2019 when 204,459 movements had been recorded; an increase of 14,044 or 6.87%.

A robust recovery in air transport sector activity

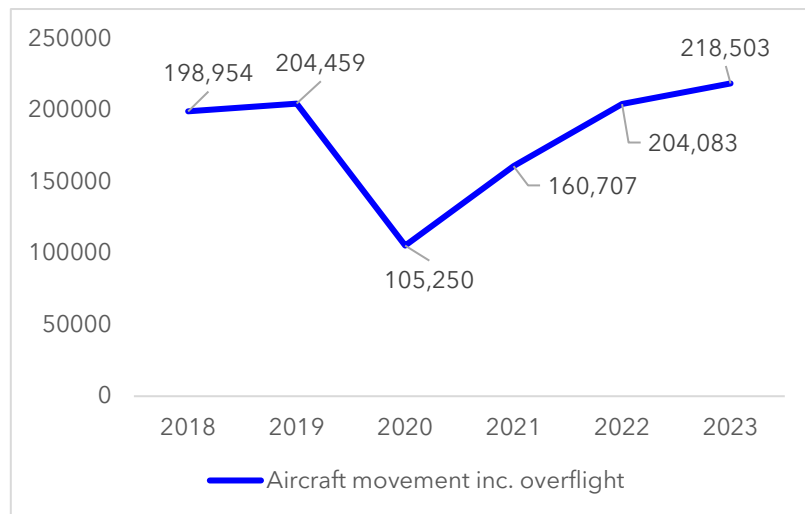
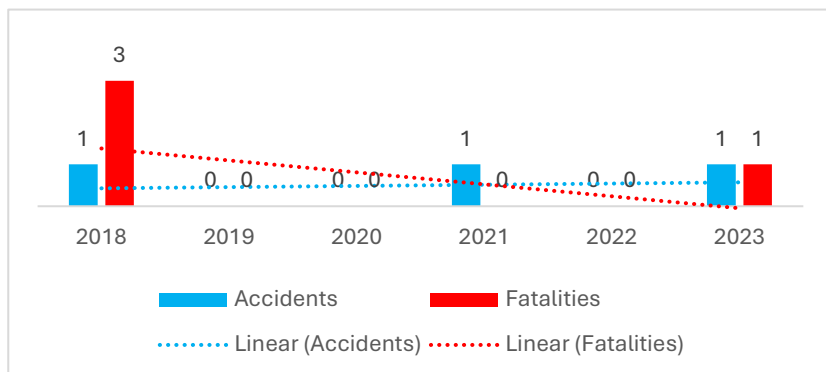


Chart 1: Aircraft

Movements 2018 - 2023 (Domestic, Inbound, Outbound and Overflights)

Yearly accident data (2013-2018) indicate consistency in the number of accidents occurring in Jamaica over the period. The number of fatalities has, however, seen a downward trend during the same period.



Jamaica's Accident Statistics

Commercial Air Transport Maximum Take-Off Weight (MTOW) over 5700 kg

For the calendar year 2023 there was **no accident** involving a commercial air transport aircraft with a Maximum Take-Off Weight above 5,700 kg.

Commercial Air Transport MTOW at, or below 5700 kg

For the calendar year 2023 there was **no accident** involving a commercial air transport aircraft with a Maximum Take-Off Weight at or below 5,700 kg.

General Aviation Operations

For the calendar year 2023 there was **one (1)** accident involving general aviation operations:

On May 5, 2023, the aircraft Univair Aircraft Corporation (formerly ENGINEERING & RESEARCH) 415-C, Serial No. 1018 with a United States of America registration number of N3254B crashed in Hampstead, St. Mary. Two (2) persons were on board the aircraft; there was one (1) fatality. The category for this accident is yet to be determined.

Chart 3 below provides data on Jamaica's accident and fatality record from 2018 to 2023.

There was one accident in 2018 involving a Cessna 206 aircraft registered N8281Q, operated by a commercial operator. All three (3) occupants perished in the accident.

In 2021 a Sabre 60 aircraft registered XBJMR was on a private domestic flight plan in Mexico but for reasons unknown, the aircraft entered Jamaica's airspace without contact with Jamaican Air Traffic Control and crashed in Portland Cottage, Clarendon. Occupancy information for the aircraft could not be verified. Upon inspection of the aircraft, no fatality was observed.

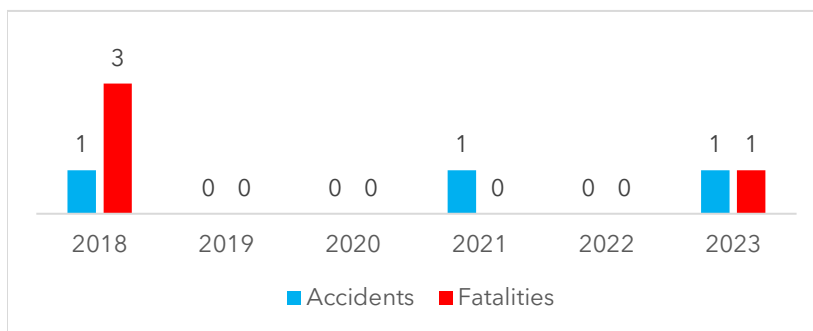


Chart 3: Accident and Fatality Data 2018 - 2023

Chart 4 below provides the flight movement information for overflights in the Kingston Flight Information Region (Jamaica’s airspace), inbound, outbound and domestic flights. Following the severe dip in travel in 2020 due to the Covid-19 pandemic, flight movement has steadily increased and has surpassed pre-Covid levels.

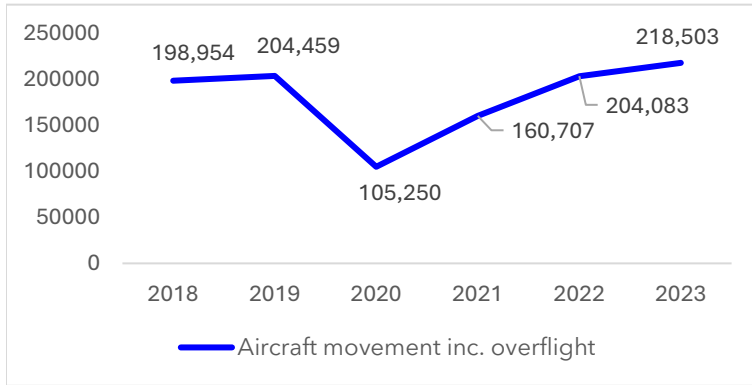


Chart 4: Aircraft Movement Data 2018 – 2023
Source: JCAA Flight Safety Department

Accident Rate

The accident rate per million aircraft movements from 2018 to 2023 varies from a high of 6.22 accidents per one million aircraft movements, in 2021 to a low of 0.00 (2019, 2022 and 2023). This can be seen graphically in **Chart 5** below.

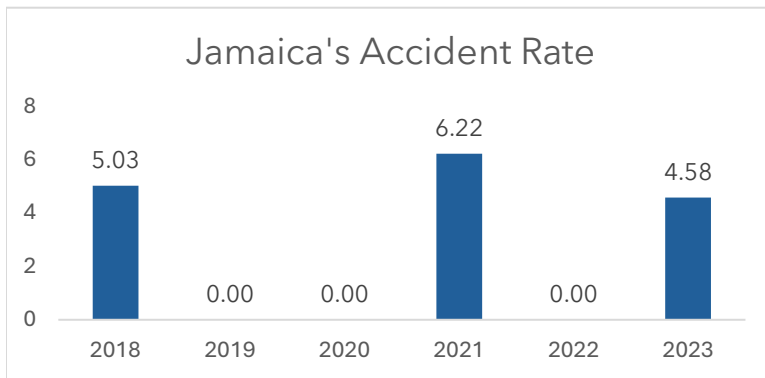


Chart 5: Aircraft Accident Rate 2018-2023
Source: JCAA Flight Safety Department



Jamaica's identified national high-risk categories (N-HRCs) are identified and monitored.

Aviation Occurrence Statistics

In the 2024-2026 edition of the National Aviation Safety Plan (NASP), Jamaica has identified national high-risk categories of occurrences (N-HRCs). These high-risk occurrences are monitored and addressed to mitigate the risk of accidents. These categories were determined based on trends identified in accidents, serious incidents and reportable occurrences that have manifested in previous years. The analysis of these safety data, collected from proactive and reactive sources of information in the local aviation industry, illustrates 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 the oversight conducted by the Authority is collated and analysed to determine the impact of safety occurrences on the four (4) safety priorities discussed in the NASP; the N-HRCs.

For the 2023 calendar year **One Hundred Ten (110)** Mandatory and Voluntary Occurrences were reported by industry to the Jamaica Civil Aviation Authority. **Appendix 1** provides the ICAO Common Taxonomy for aviation occurrences as per the definitions issued by ICAO in December 2017.

For **Pilot Decision Making** the following taxonomy categories apply:

1. UIMC - Unintended Flight into IMC conditions
2. LALT - Low Altitude Operations
3. CFIT - Controlled Flight Into Terrain
4. AMAN - Abnormal Maneuvering

For **Loss of Aircraft Separation**, the following taxonomy category applies:

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

For **Aerodrome Infrastructure Deficiencies**, the following taxonomy category applies:

1. ADRM - Aerodrome

For **Incursion at Aerodromes**, the following taxonomy categories apply:

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

Chart 6 below depicts the breakdown by taxonomy category for each of the **One Hundred Ten (110)** Mandatory and Voluntary Occurrences that were reported by industry to the Jamaica Civil Aviation Authority. The highlighted items are N-HRCs for which there is prioritized monitoring.

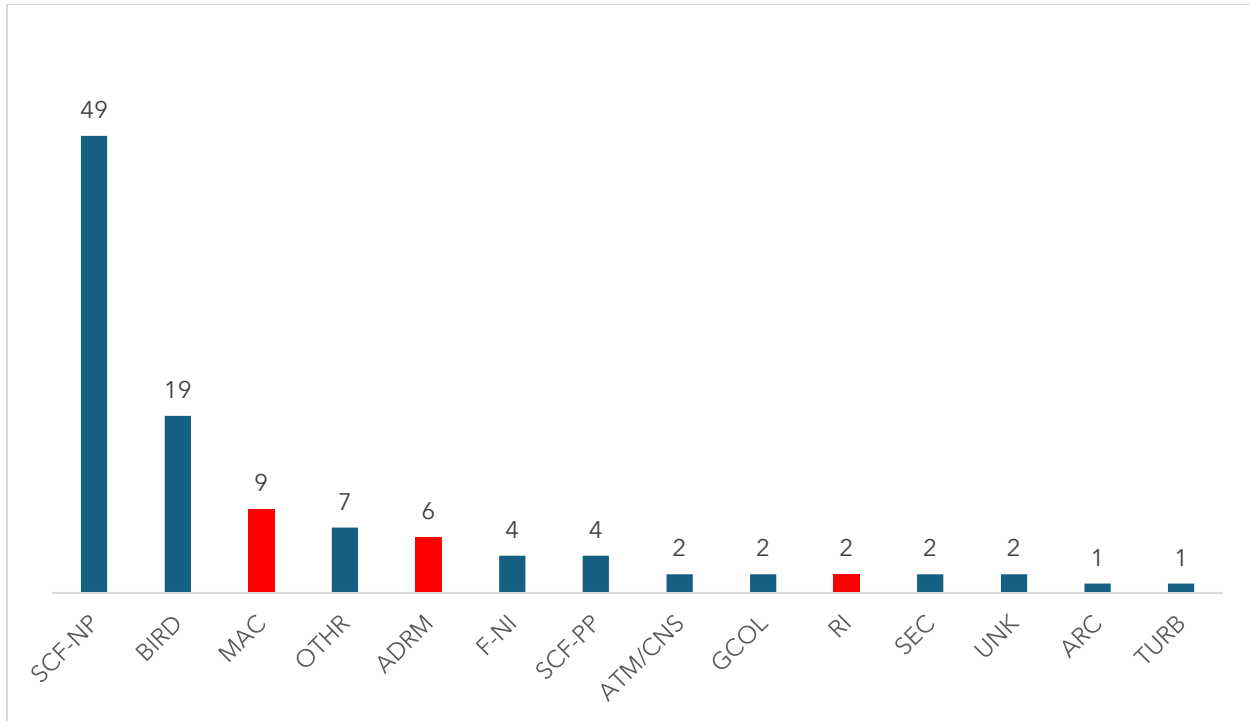


Chart 6: Mandatory and Voluntary Occurrences Reported to the JCAA in Calendar Year 2023
Source: JCAA Flight Safety Department (2024)

Of the **One Hundred Ten (110)** Mandatory and Voluntary Occurrences reported to the JCAA, 17 or 15% were related to the prioritized categories identified under the NASP; the N-HRCs.

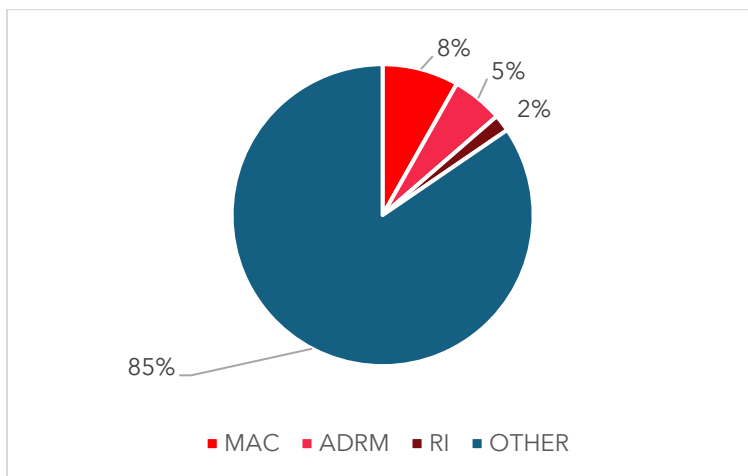


Chart 7: Proportion of N-HRCs as a Component of Mandatory and Voluntary Occurrences Reported for Calendar Year 2023
Source: JCAA Flight Safety Department (2024)

Safety Enhancements

The purpose of this and any other safety report is to enhance safety. Coming out of this report there are two distinct areas that are seen that can enhance safety. The first is to improve the incident reporting system and secondly a programme of communication to encourage greater levels of reporting of incidents by industry.

Incident Reporting Systems

The data on formal mandatory and voluntary incident reports shows that the CAA needs to introduce more robust means of gathering and storing reports of incidents. This is because anecdotally we know that there were more reportable incidents than the **One Hundred Ten (110)** Mandatory and Voluntary Occurrences reports recorded for 2023.

For instance, one of the main international airports carried out a major runway expansion project that resulted in a number of runway incursions during the initial days following the runway expansion. However, this information was not reflected in the formally reported runway incursions during the year.

For 2024 efforts will be made to improve the gathering, collation and analysis of incidents in order to get a more accurate reflection of the safety state of the Jamaican aviation industry.

Safety Programmes

To address the deficiency identified above the CAA regulatory division has enhanced its communication with the Air Traffic Management service provision division of the CAA. This enhanced communication will codify and standardize what information should be reported as a mandatory or voluntary incident report.

The enhanced communication will also specify the timeframe and format that these reports will be presented.

The other programme from this initiative is to boost the type of analysis that is done on these and other reports received from industry. This boosted analysis will also include the reporting that is done to ICAO North America, Central America and Caribbean (NACC) regional office on a quarterly basis.

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

Code	Area	Description
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)
LOC-I	Loss of control in-flight	Loss of aircraft control while, or deviation from intended flightpath, in flight. Loss of control in flight 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

Code	Area	Description
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