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| Annual Safety Report | | |  |
|  | logo200x94  **ALBANIAN CIVIL AVIATION AUTHORITY** | | |
|  | 2022 | | |

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|  | Executive Summary | This report provides a summary of the analysis of the occurrence reported to ACAA as well as accident and serious incidents investigated by Aircraft Accident Investigation Authority of Albania in 2022.  It identifies the key safety issues and safety performance of the Albania aviation industry. The structure has been categorized by different types of operation on each aviation sector as follows:   * Air Navigation Service Providers, * Aerodrome Operators, and * Albanian Operators. |  |
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# Introduction

# The occurrence Reporting System aims to improve aviation safety by ensuring the relevant safety information related to civil aviation is reported, collected, stored, protected, exchanged, disseminated and analyzed. The sole objective of occurrence reporting is the prevention of accidents and incidents and not to attribute blame or liability. The information collected is adequately protected from unauthorized use or disclosure, and it is used strictly for the purpose of maintaining and improving aviation safety.

Occurrence reporting in Albania is governed by CAA Regulation No.89/2022 on reporting, analysis and follow-up of occurrences in civil aviation, of 05 May 2022, which transposes into Minister Order of the Republic of Albania Regulation (EU) No.376/2014 of the European Parliament and of the Council of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation.

This Safety Report contains a description of the occurrences classes and categories, an analysis of the 2022 occurrence reports data and statistics, detailed information on the coded categories of the occurrences reported in 2022. Albanian Annual Safety report 2022 puts forward an aggregated summary of the safety data and safety information submitted to ACAA by the Civil Aviation Organization’s (CAOs) with regards to safety issues. The collection of safety data gathered in this report also covers information received from Albcontrol, Aerodrome Operators, Albanian airlines, and Commercial Air Transport.

**Albanian Aviation Safety Occurrence Reporting**

Chart 1: Number of occurrence reporting

The safety occurrence reporting of CAO s (Civil Aviation organizations) has increased within the period 2020-2022. ACAA received 537 safety occurrence reports in 2022 which reflects 42 % increase from 2021 and 130 % from 2020. The number of safety occurrence reporting demonstrates a positive improvement in the reporting culture across the Albanian Aviation industry.

However, there is still a need to improve the way that just culture principles are applied which will give more confidence in people and CAOs reporting more safety occurrences.

# Occurrence Categories

# ACAA uses the aviation occurrence taxonomy which was developed by Commercial Aviation Safety Team/ ICAO Common Taxonomy Team (CICTT). This is applied to the safety occurrences to facilitate the safety data analysis by focusing on common safety issues of each occurrence. The occurrences mentioned in this report are those that occurred in Albanian aviation industry and were reported to ACAA.

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| **ADRM** (Aerodrome) | Occurrences involving aerodrome design, service, or functionality issues. | **RAMP** (Ground Handling) | **Occurrences during (or as a result of) ground handling operations.** |
| **ARC** (Abnormal Runway Contact) | Any landing or take-off involving abnormal runway or landing surface contact. | SCF-NP (System/ Component Failure or Malfunction (Non- Powerplant)) | Failure or malfunction of an aircraft system or component - other than the powerplant. |
| **ATM/CNS: ATM** | Occurrences involving Air Traffic Management (ATM) or Communication, Navigation, Surveillance (CNS) service issues | SCF-PP (System/ Component Failure or malfunction (Powerplant)) | Failure or malfunction of an aircraft system or component related to the powerplant. |
| **BIRD** (Birdstrike) | Occurrences involving collisions/near collisions ingestion of one or several birds which may occur in any phase of flight. | SEC (Security related) | Criminal/Security acts which result in accidents or incidents. |
| **FN-I** (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. | TURB (Turbulence Encounter) | In-flight turbulence encounter. |
| **LOC-I** (Loss of Control- Inflight) | Loss of aircraft control while or deviation from intended flightpath inflight | OTHER | Any occurrence not covered under another category. |
| **MAC** | Airprox, ACAS alerts, loss of separation as well as near collisions or collisions between aircraft in flight | UIMC (Unintended flight in IMC) | Unintended flight in Instrument Meteorological Conditions (IMC) |
| **MED** (Medical) | Occurrences involving illnesses of persons on board the aircraft. | WSTRW(Wind Shear or Thunderstorm) | Flight into wind shear or thunderstorm. |
| **NAV** (Navigation Error) | Occurrences involving the incorrect navigation of aircraft on the ground or in the air. | WILD(Wildlife) | Collision with, risk of collision, or evasive action taken by an aircraft to avoid wildlife on a runway or on a helipad/helideck in use. |

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**ICAO’s High – Risk Categories (HRCs)**

The Global HRCs are the most common occurrence categories related to fatal accidents (which are derived from the analysis of fatal accidents by ICAO over a 10 years’ period). HRCs need to be addressed to mitigate the risk of fatalities. The following occurrence categories have been identified as HRCs in the ICAO Global Aviation Safety Plan (GASP) 2020-2022 Edition and are considered relevant for Albanian.

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| C:\Users\Edmira Cuko\Desktop\Annual Safety Report\04_CFIT.png | **Controlled Flight into Terrain (CFIT)**  In-flight collision or near collision with terrain, water, or obstacle without indication of loss of control. |
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| C:\Users\Edmira Cuko\Desktop\Annual Safety Report\09_LOC.png | **Loss of Control In-flight (LOC-I)**  Loss of aircraft control while or deviation from intended flight path in flight. |
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| C:\Users\Edmira Cuko\Desktop\Annual Safety Report\10_LOS.png | **Mid-Air Collision (MAC)**  Airprox, Airborne Collision Avoidance System (ACAS) alerts, loss of separation as well as near collisions or collisions between aircraft in flight. |
|  |  |
| C:\Users\Edmira Cuko\Desktop\Annual Safety Report\11_RE.png | **Runway Excursion (RE)**  A veer off or overrun off the runway surface. |
|  |  |
| C:\Users\Edmira Cuko\Desktop\Annual Safety Report\12_RI.png | **Runway Incursion (RI)**  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. |

# Statistical Data

As shown in the charter below, during the year 2022 the ACAA has received reports for a total 537 occurrences in civil aviation, which is a significant increase compared to previous year approaching the numbers of occurrences from 2021 and 2019.

The increase in the number of the occurrence reports received in 2022 corresponds to a increased number of aircraft activities at Tirana International Airport (TIA). In total, 537 occurrence reports are registered in ECCAIRS program, of which 60 are problems with AFTN lines with Athens, Corfu, Skopje, Brindisi, Rome, Budapest, etc events that were not analyzed in this report because during the problem it has been communicated by the technical staff of respective countries that the problem is on their part.

Chart 2: Classification of occurrences reported over the past years 2019-2022.

This section addresses the occurrences related to Air Navigation Services. This includes occurrences of domestic and overfly flights in Albanian airspace (FIR). The number of occurrences received between 2020-2022 by occurrence categories is shown in chart 3. The most frequent occurrence categories were Air Traffic Management or Communication, Navigation, Survellance (ATM:CNS/ATM), Birdstrike (BIRD) and Security (SEC). Most of the ATM: CNS/ATM related occurrences are linked to equioment, air-ground radio interference, communication groung-ground, problems with differents lines. Most Security are linked to interference with the aircraft by laser. These often occur during the approach phase flight. More details of birdstrikes are available in the Aerodrome section.

**Occurrences Classification**

Chart 3: Number of safety occurrences related to Air Navigation Services.

r **Key Safety Issues**

When the occurrence reports are broken down further by key safety issues, this provides a deeper understanding of the events involved in the reports. The number of key safety issues related to Air Navigation Services are shown in chart 4.

Chart 4: Number of key safety issues related to Air Navigation Services.

**1. Aircraft systems/components malfunction**

**1.1 System/Component Failure or Malfunction (Non-Powerplant) (SCF-NP)**

There were 11 SCF-NP occurrences in 2022. The most significant concerns are malfunctions of navigationsystem, possible flight system, malfunction, flaps assimetry, multiple hydraulic problems.

**1.2 System/Component Failure or Malfunction (Powerplant) (SCF-PP)**

In 2022, there were 2 engine malfunction occurrences. SCF-PP occurrences in 2022 did not result in significant damage and consequences to the aircraft. In conclusion, to help improving of the occurrences analysis regarding airworthiness in high-level perspective, ACAA would like to emphasise the CAT operators to provide the ATA chapter and the cause of failure in the occurrence report. The more data CAT operators provide, the more ACAA

will be able to assess and monitor reliability throughout the commercial aircraft fleet operating in Albania.

# Providers

**2. Interference with an Aircraft**

Chart 5: Interference with aircraft occurrences.

There were 17 occurrences of aircraft being interfered with lasers. However, the number of such occurrences has increased since 2020.

However, it requires collaboration between ACAA and the local authorities in term of educating the public to understand the significant safety impact caused by lasers. Chart 5 shows the number of safety occurrences related to Interference with aircrafts in 2022.

**3. Unstabilised Approach**



Continuing to land after an unstabilised approach is still a significant issue and continues to occur frequently. This reflects a global trend that is likely to be related to the COVID-19 pandemic with pilot flying less frequently. ACAA will continue to monitor this trend and also focus on the training during the surveillance of operators.

# Aerodrome Operators

This section addresses the operational safety issues that arose during aerodrome operations. The rate of safety occurrences reported between 2019-2022 by occurrence categories is shown in chart 6.

Chart 6: Number of safety occurrences related to Aerodrome Operations.

**Key safety Issues**

The operational safety issues are broken down further to provide intensive understanding of the occurrence involved in the aerodrome operations. The highest frequency operational safety risks are Birdstrikes followed by Groung Handling, Navigation Function Papi Light, Ground vehicle operation issues respectively.

Chart 7: Number of Key safety issues related to Aerodrome Operations, reported in 2022.

**1. Bird/wildlife**

The number of bird issues has been increasing from 2020 as a result of the COVID-19 pandemic with reduced aviation activity that has led to wildlife encroaching into airside areas.

Moreover, the increase of bird and wildlife occurrences at aerodrome or around aerodrome vicinity are likely to be as a result of:

* Grassland and grass management at or close to the aerodrome;
* Weeds, bushes and trees which offer attractive shelter;
* Bird overflying the aerodrome or its approaches;
* Increased number of aircraft movements;
* Weather conditions; and
* Reported possible birdstrike.

Chart 8: Number of birdstrike occurrences by flight phase.



The number of birdstrike by flight phase are shown in chart 8, about 25.3 per cent of birdstrike occurred during the take off flight phase and 46.3 per cent occurred during the approach flight phase. The largest number of birdstike occurred duringthe simmer month, which corresponds to the increased number of aircraft movements.

# Albanian Operators

This section addresses the occurrences related to Albanian Air Operators. This includes occurrences happening in Albania and Outsdie of Albania. The number of occurrences received in 2022 by occurrence categories is shown in chart 9. The most frequent occurrences categories were bird issue, security isuee, SCF-NP and Other.

**Occurrences Classification**

Chart 9: Number of occurrences related to Albania Air Operaters.

**Key Safety Issues**

When the occurrence reports are broken down further by key safety issues, this provides a deeper understanding of the events involved in the reports. The number of key safety issues related to Albanian Airlines are shown in chart 10 key safety issues related to Albawings and in chart 11 key safety issues related to Air Albania.

**Number of key safety issues related to Albawings**

Chart 10: Number of key safety issues related to Albawings.

**Number of key safety issues related to Air Albania**

Chart 11: Number of key safety issues related to Air Albania.

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