



**ALBANIAN CIVIL AVIATION
AUTHORITY**



Annual Safety Report

January 2024

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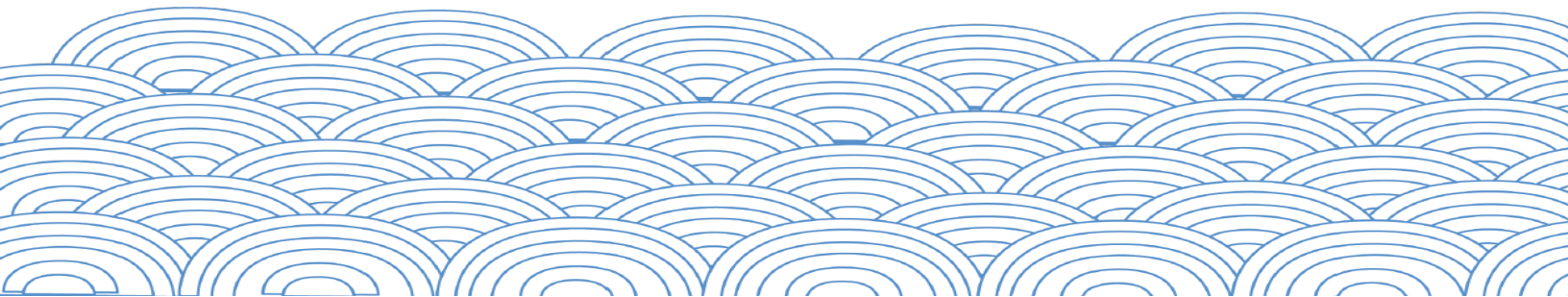
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Executive Summary

This report provides a summary of the analysis of the occurrence reported to ACAA from January to December 2023.

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 Air Operators.*



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 analysed. The sole objective of occurrence reporting is the proactive role to the prevention and analysing 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 Ministerial Order of Transportation No. 89/2022 on reporting, analysis and follow-up of occurrences in civil aviation, of 05 May 2022, which transposes into national legislation 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 occurrence classes and categories, an analysis of the year occurrence reports data and statistics, detailed information on the coded categories of the occurrences reported from January to December 2023.

Annual Safety report 2023 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 Air Navigation Service Provider, Aerodrome Operators, Albanian airlines, and Commercial Air Transport.

Albanian Aviation Safety Occurrence Reporting

The safety occurrence reporting of CAOs (Civil Aviation Organizations) has significantly increased within the period 2021 – 2023.

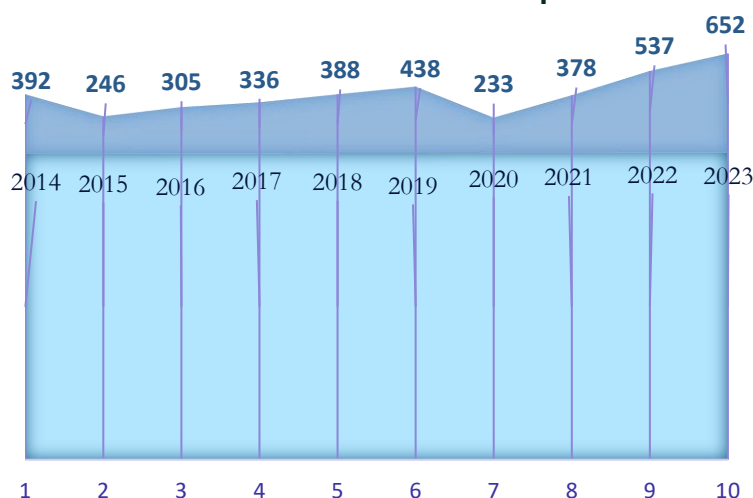
This is also an indication of how aviation is recovering after 2020 – 2021, pandemic years, as traffic is increasing.

ACAA received 652 safety occurrence reports during 2023 and the levels of reporting are higher in comparison with the previous years, represented in chart 1.

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.

Chart 1: Nr. of Occurrence reports.



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.

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 (Bird strike)	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.

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) and are considered relevant for Albanian.



Controlled Flight into Terrain (CFIT)

In-flight collision or near collision with terrain, water, or obstacle without indication of loss of control.



Loss of Control In-flight (LOC-I)

Loss of aircraft control while or deviation from intended flight path in flight.



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.



Runway Excursion (RE)

A veer off or overrun off the runway surface.



Runway Incursion (RI)

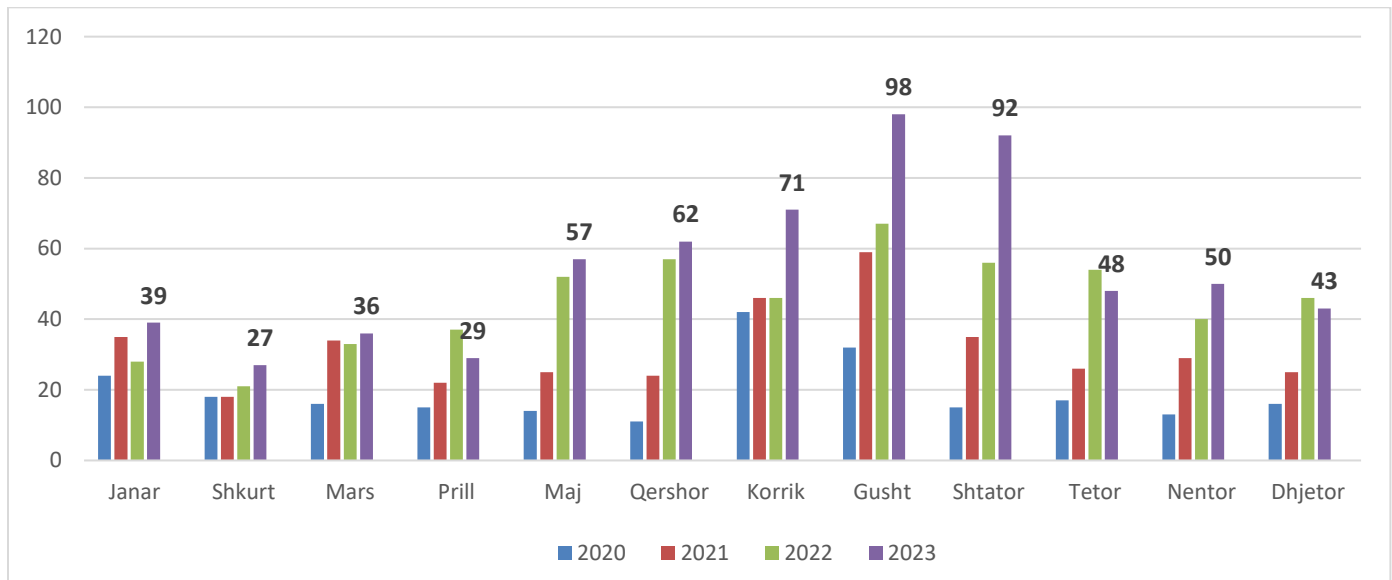
Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of aircraft.

From the above ICAO HRC, during 2023 it was reported 12 MAC under sub-category SMI - Separation Minima Infringements.

Statistical Data

As shown in the chart below, during the year 2023 the ACAA has received reports for a total of 652 occurrences in civil aviation, occurrences collected until the end of the year, 2023, which is a significant increase compared to previous years (2020 - 2022).

Chart 2: Occurrences reported over 2020 - 2023.



The increase in the number of the occurrence reports received in 2023, corresponds to an increased number of aircraft activities at Tirana International Airport (TIA), also a few reports from Kukes International Airport (KIA).

As shown in the charts below, it represents the numbers of traffic for Landings, Take-offs and Overflights, in comparison with the previous year 2022. It is easily observed that the traffic is increased during 2023 compared with the previous year, which means that an increase of number of occurrences reported in ECCAIRS system is expected.

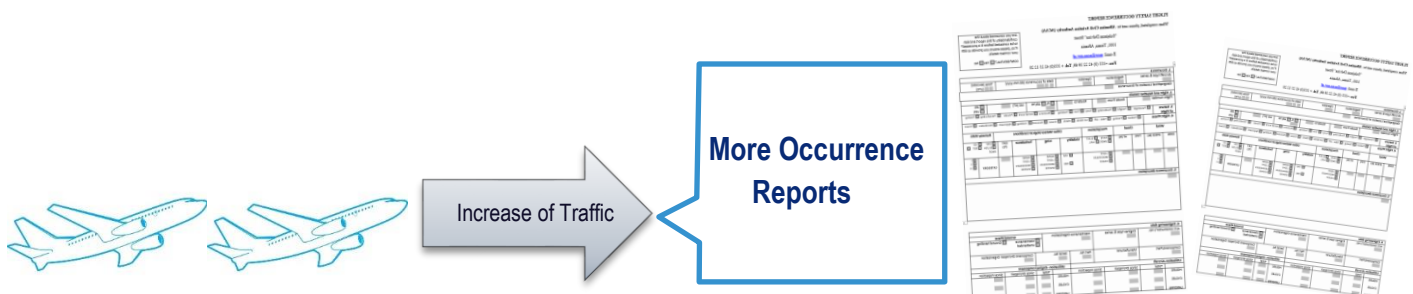


Chart 3 and 4: Nr. of traffic and growth for arrivals between years 2022 and 20231.

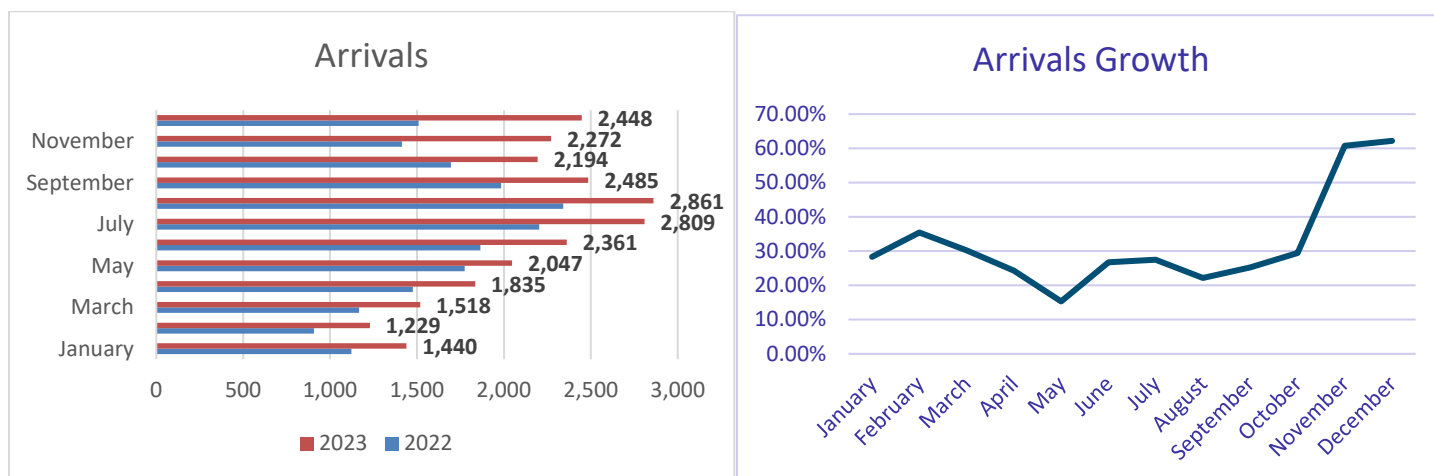


Chart 5 and 6: Nr. of traffic and growth, for departures between years 2022 and 2023.

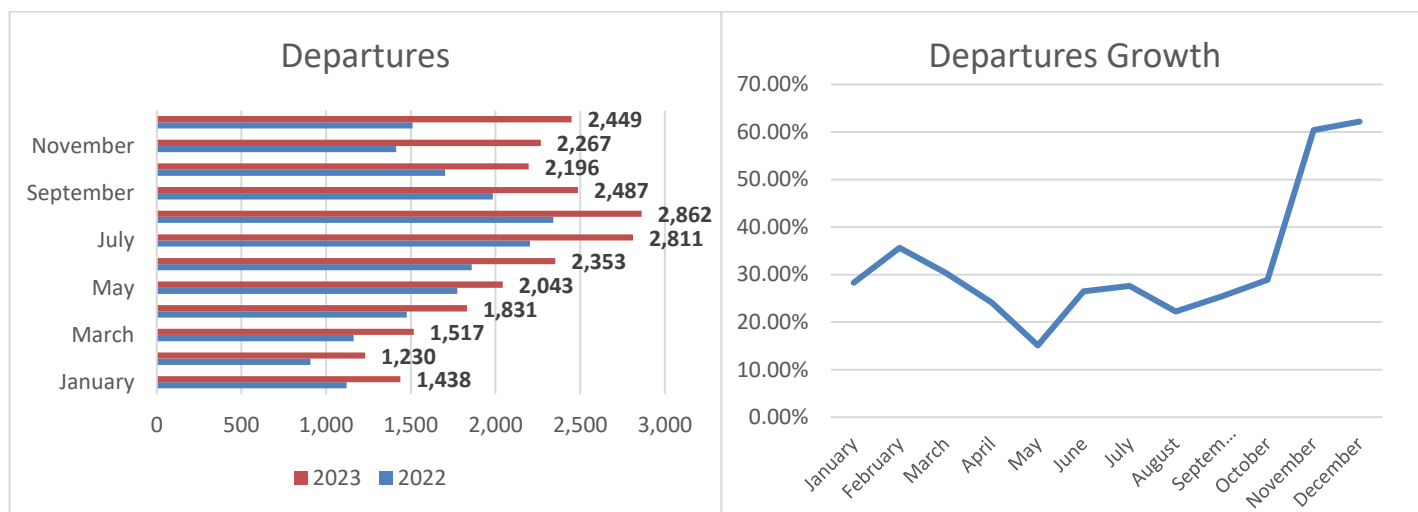
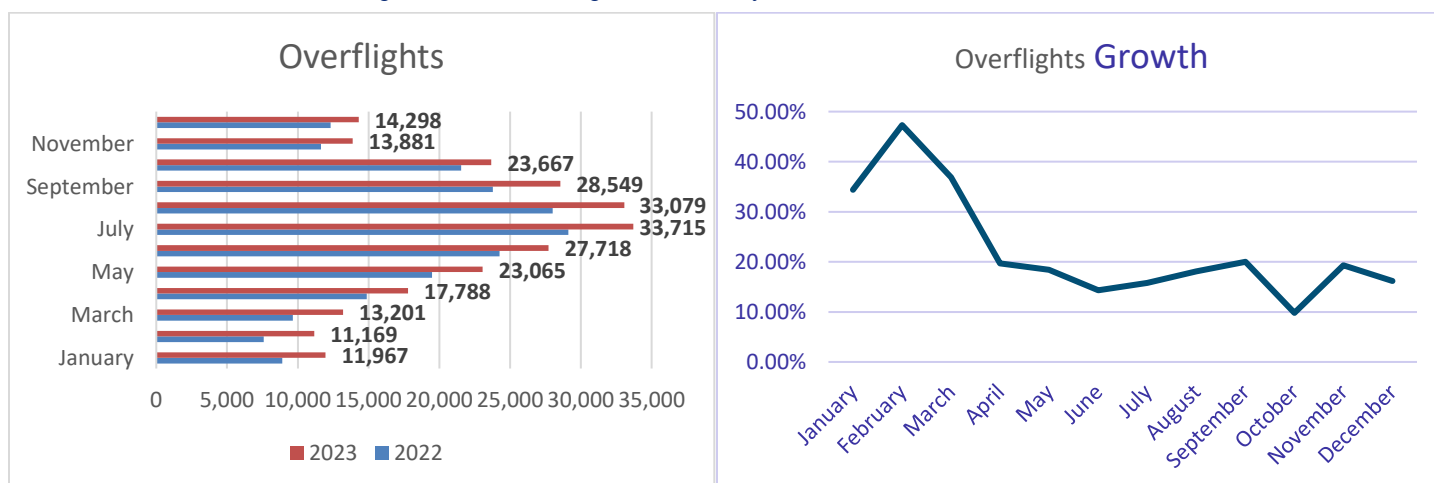


Chart 7 and 8: Nr. of traffic and growth, for over-flights between years 2022 and 2023.



¹ The data was collected from Statfor, EUROCONTROL.



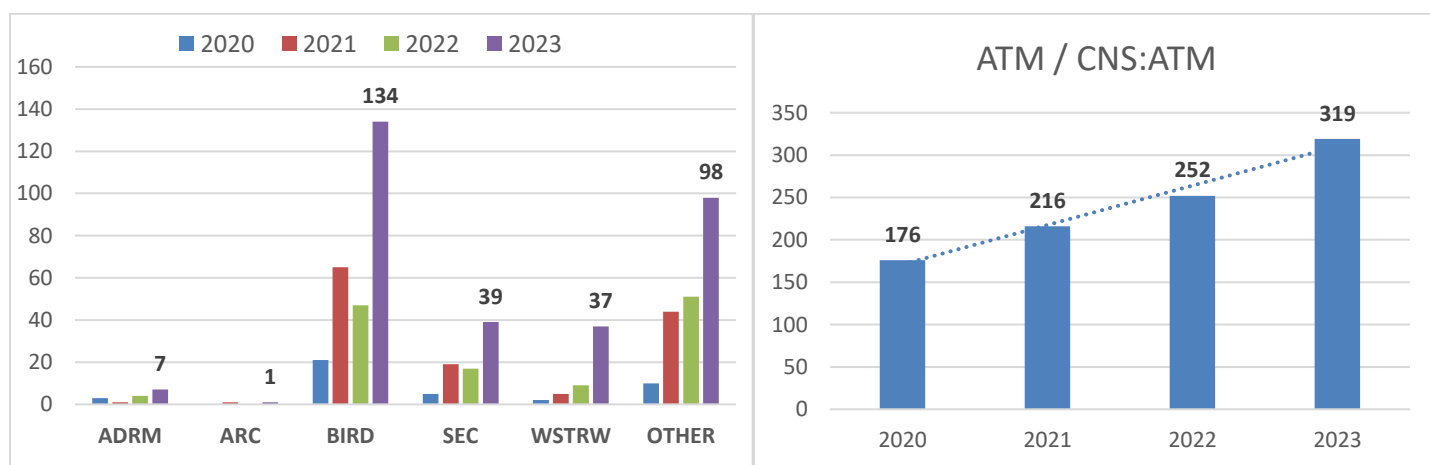
This section addresses the occurrences related to Air Navigation Services. This includes occurrences of domestic and overfly flights in Albanian airspace (FIR).

The most frequent occurrence categories were Air Traffic Management or Communication, Navigation, Surveillance (ATM: CNS/ATM), Bird strike (BIRD) and Security (SEC). Most of the ATM: CNS/ATM related occurrences are linked to equipment, air-ground radio interference and noise, communication ground-ground, problems with different lines.

It is essential to understand that occurrences which are most reported from Air Navigation Service Provider, ALBCONTROL sh.a., are not caused by Service Provider. Example of categories of this kind of occurrences which are reported from Service Provider are “Birdstike” and “Laser Beam Illumination”, etc.


Most Significant Occurrences by Classification

Chart 9 and 10: Nr. of Occurrences by Category, 2020 - 2023.



Above in graphics are represented most important categories reported by ECCAIRS system to the ACAA. The first graph includes categories like ADRM, ARC, BIRD, SEC, WSTRW and OTHER. The second graph with an evident major number of occurrences per category is ATM/CNS.

Key Safety

According to  EASA, ATM/ANS covers a lot of services, implying a lot and a vast occurrence to be reported by ANSP. This is applicable in Albania, which means that the main stakeholder to report in our MOR system is ALBCONTROL sh.a.



From the total of 652 occurrences reported to MOR, 319 occurrences were classified as ATM/CNS, 37 WINDSHEAR, 98 OTHER – exmp. GO AROUND, etc., that are mostly directly and non-directly related with service provider. It is to be noted that during one event can be register several categories which can be occurred.

The table below shows risk classification of occurrences reported by ANSP, ALBCONTROL sh.a. using RAT – Risk Analysing Tool, where D5 is the lowest risk associated with an occurrence moving left – up to the highest risk A1, accident.

A1	B1	C1	E1	D1	N1	DURING THIS YEAR, THE MOST SEVERE OCC. reported were A2 and B3 classification.
A2	B2	C2	E2	D2	N2	
A3	B3	C3	E3	D3	N3	
A4	B4	C4	E4	D4	N4	
A5	B5	C5	E5	D5	N5	
A	B	C	E	D	N	
ATM	ATM Ground	ATM (final)	ATM Ground (final)			

One of the most dangerous occurrences in ATM/CNS domain is MAC – Mid Air Collision, as such, during 2023 it was reported 12 SMI – Separation Minima Infringement, categorized under MAC, according to ADREP taxonomy with risk classification various from C2 to C4.

Safety Analyse/Investigation of Occurrences

The purpose of this section is to bring some general information related to the safety analyse/investigation of occurrences in the ANS domain. The objectives of Safety Occurrence Assessment is to reveal any causal factors leading to the incident and to implement any corrective actions necessary. In other words, to assess the ATM contribution to an occurrence, to determine the ATM related causes to those occurrences as well as their severity and to develop ATM-related safety recommendations.

ALBCONTROL sh.a. during 2023 has conducted 10 safety investigations of their occurrences.

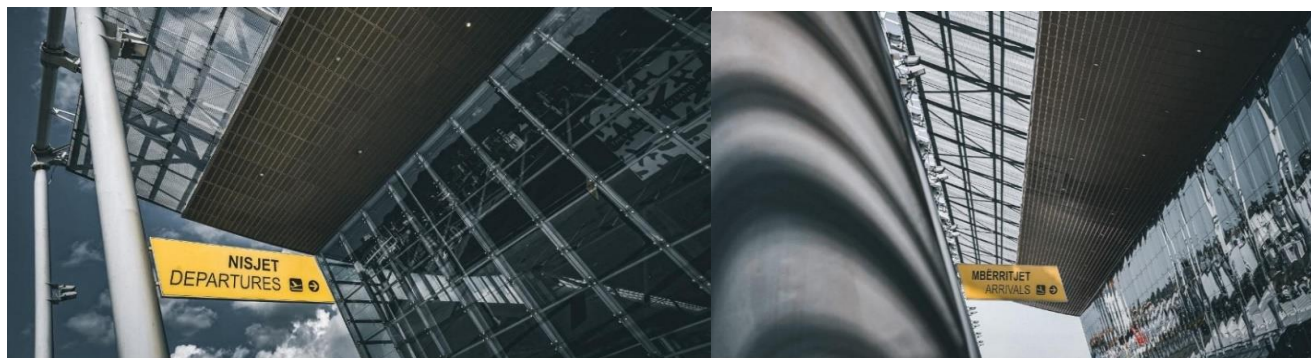
The most common occurrences investigated by ALBCONTROL sh.a. are:

1. Separation Minima Infringements;
2. Skyline FTT and skyline RDP01 -2;
3. Wind Sensors, etc.

During this year ALBCONTROL from 12 reported SMI, only 4 were investigated. One major occurrence was related with SKY line, where the consequence was serious inability to provide ATM services for a limited time.

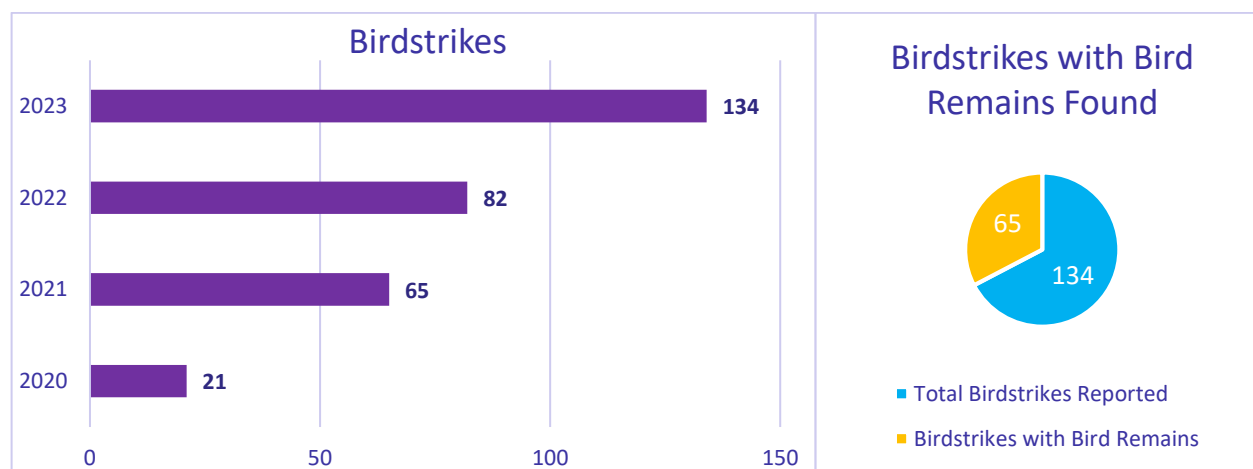
Some Conclusions/Recommendations identified during these safety investigations are as below:

1. The sudden confrontation with an unforeseen conflict caused by the neighbouring ATHINA sector;
2. To revise the Letter of Agreement with ATH/MAK.;
3. The traffic was within the norms as a number for the limits in bad weather, but again the frequency was busy and the situation with conflicts and non-standard level a/c.;
4. Increase in runway occupancy due to the blocking of taxiway C;
5. The pilots' non-timely implementation of ATC instructions/clearances as well as failure to report if they cannot follow these instructions/clearances;
6. Implementation of recommendations regarding the maintenance and spare parts of TECH/MET equipment;
7. The checklist of actions that must be followed by the ATCO when the decision is made to (clear the sky), which is reflected in the local procedures, must be printed and left in the operational room;
8. To organize a refresher training regarding the tasks/responsibilities of the KTA/WS/SSO staff, for the management of critical situations that initiate the implementation of the contingency plan;
9. The publication of NOTAM should be included in the local procedures, Degraded Mode of operations and be part of the WS check list for CLEAR the SKY;
10. Blocking of the RWY due to a medical emergency traffic or other unusual reasons, which cannot be processed at APRON from Tirana airport.
11. Lesson Learn for ATCOs where emphasis is placed on the actions that must be taken with such similar cases. Importance of NOTAM notification for RWY closing.



This section addresses the operational safety issues that arise during aerodrome operations. The chart below represents the safety occurrences reported for the period between 2020 - 2023 by occurrence category “Birdstrike”. These categories of occurrence are mostly reported by Air Navigation Service Provider and Airport Operator but are mostly related with aerodrome operations.

Chart 11: Nr. of Occurrences by Category “Birdstrikes” 2020 - 2023.



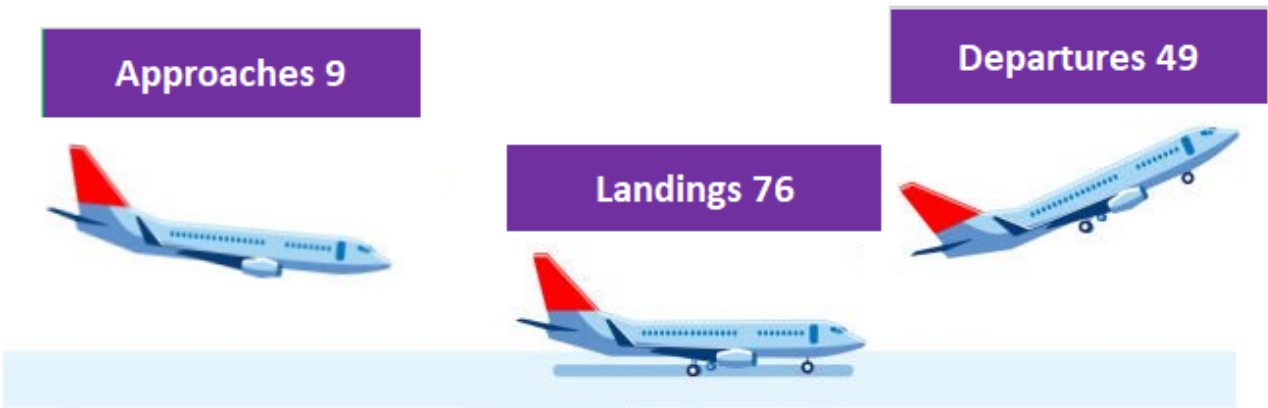
Birdstrike

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. During the last years there is an increase in “birdstrike” compared with pandemic years.

It is easily noticed that during this year this category does have an increase of reports from previous year. According to CAA analysis for this category of occurrences this increase can be associated with 2 factors:

1. High number of airport operations in TIA;
2. Operators are also reporting in MOR “Possible Birdstrikes”.

Figure 2: Nr. of Birdstrike Occurrences reported according to flight phase.



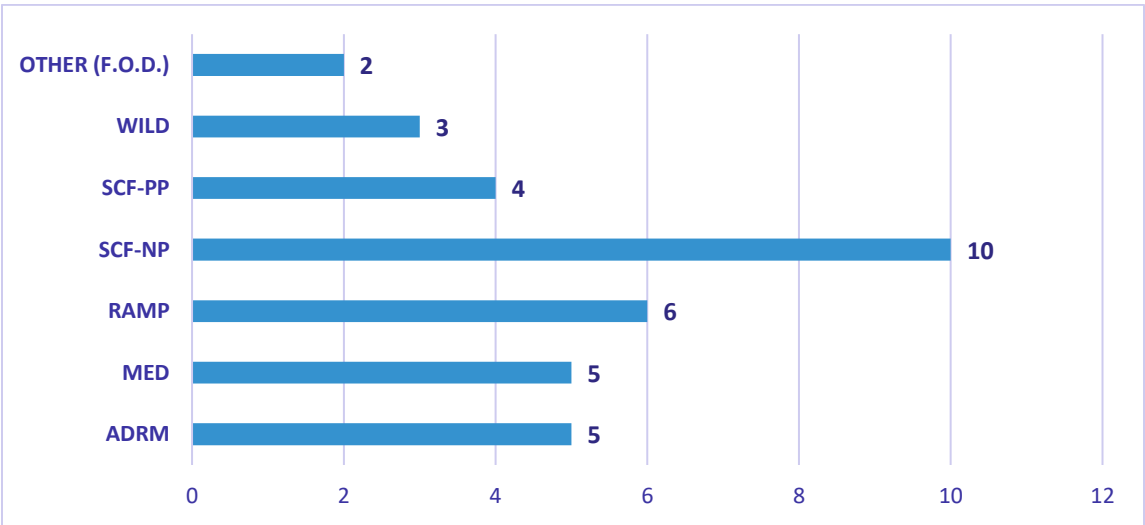
Note: Some occurrences of the above birdstrikes, which were detected during and in parking area were categorized as “Landings”.

Key safety Issues

The highest frequency operational safety risks related to aerodrome or at aerodromes are “Birdstrikes” followed by occurrences involving “RAMP” and “ADRM” and “FOD”.

During the year 2023, beside Birdstrikes that includes the majority of the occurrences, Aerodrome Operators have reported 33 occurrences in total.

Chart 12: Aerodrome Occurrences 2023.



Safety Analysis/Investigation of Occurrences

All incidents have the potential to become injury-related accidents and it is required to be investigated. Accident investigation is a key component of any SMS. In aviation industry, some of incidents/accidents could be prevented by identifying the underlying causes of the accident and implementing appropriate corrective actions. An accident investigation program is a safety management tool used to identify the contributing factors and causes of an Accident in order to eliminate or mitigate these factors and ensure that similar accidents are not repeated.

During the year 2023, Tirana International Airport operator has performed 7 safety investigations. Mostly these investigations are related with the operations at the airport like “Ground handling” and also related to the Runway/Taxiway conditions.

The most common occurrences investigated by TIA are:

1. SAUDI DEVIATION MEDICAL PAX;
2. Damage to AFL cable;
3. Aircraft Tire unwrapped;
4. Obstacle with GSE on escape route of fuel truck;
5. Scratch WIZZAIR, etc.

Some Conclusions/Recommendations identified during these safety investigations are as below:

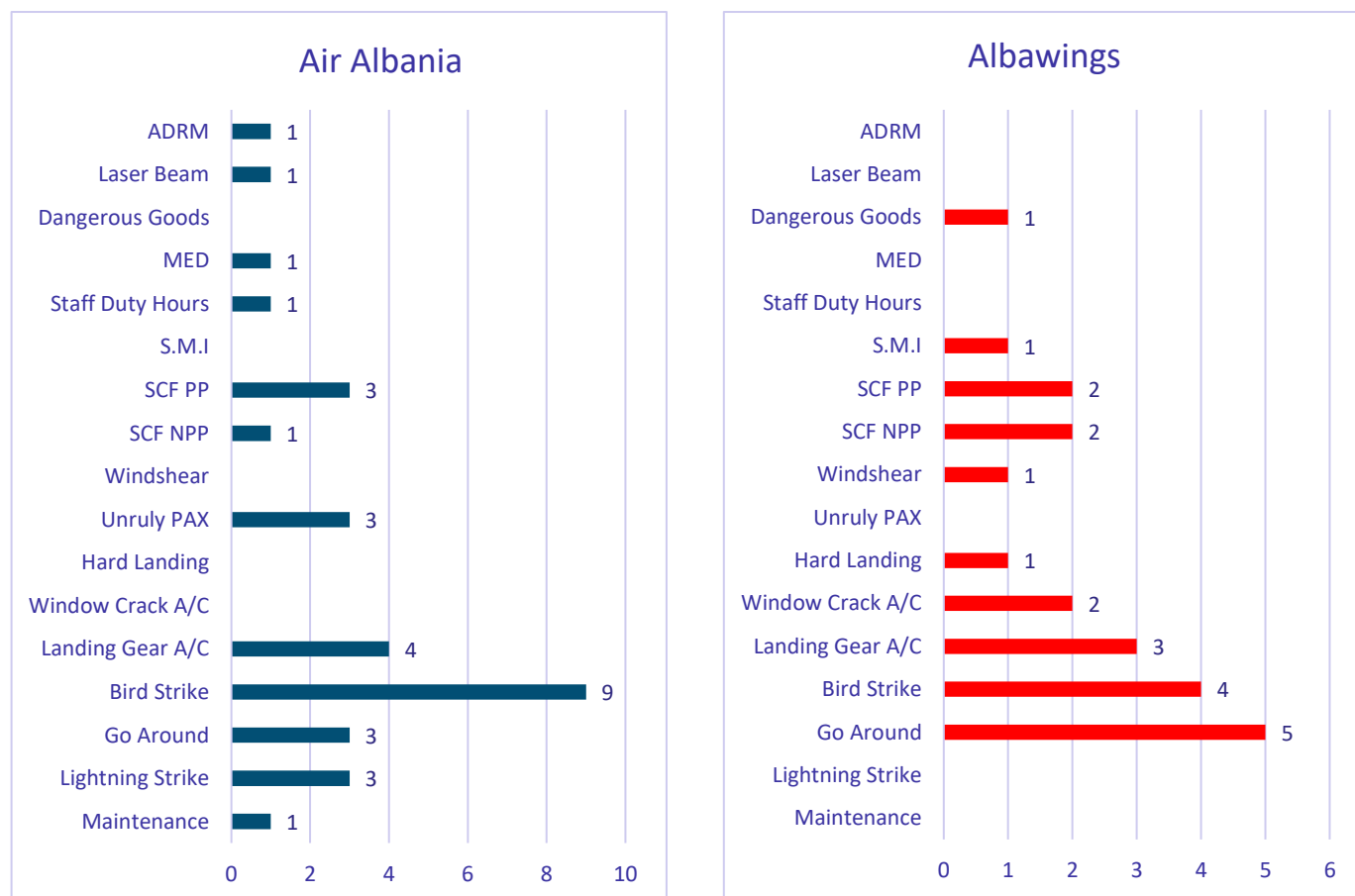
1. Aircraft tire unwrapped by itself or due to manufacture issue;
2. The optical cable was damaged, because the real level of the cable does not match with the level foreseen on the available as build maps, based on the line specifications;
3. The optical cable was not marked with identification signs and was not in the standard underground deep;
4. The backup system for control the AFL system was set up immediately and function normally without any problem;
5. The construction truck entered on taxiway strip under the supervision of security patrol, which was later followed by marshaller;
6. The construction vehicle entered the taxiway strip without prior coordination with the control tower;
7. Aircraft operation on taxiway was not affected as it was under the Marshaller observation



This section addresses the occurrences related to foreign Air Operators that operate in Albania and to Albania Air Operators. It does include occurrences happening in Albania and outside of Albania.

The number of occurrences received in 2023 by Albania airline operators, “Air Albania” and “Albawings”, were almost at the same range.

Chart 13: Nr. of Occurrences, of 2023, reported by Albanian AOCy.



One of the most reported occurrences from air operators/stakeholders is the category “Go Around”. From the total of 652 occurrences reported during this year, 97 of them were by category “Go Around”. The figure below shows the cause of those occurrences as reported by pilots during operations.

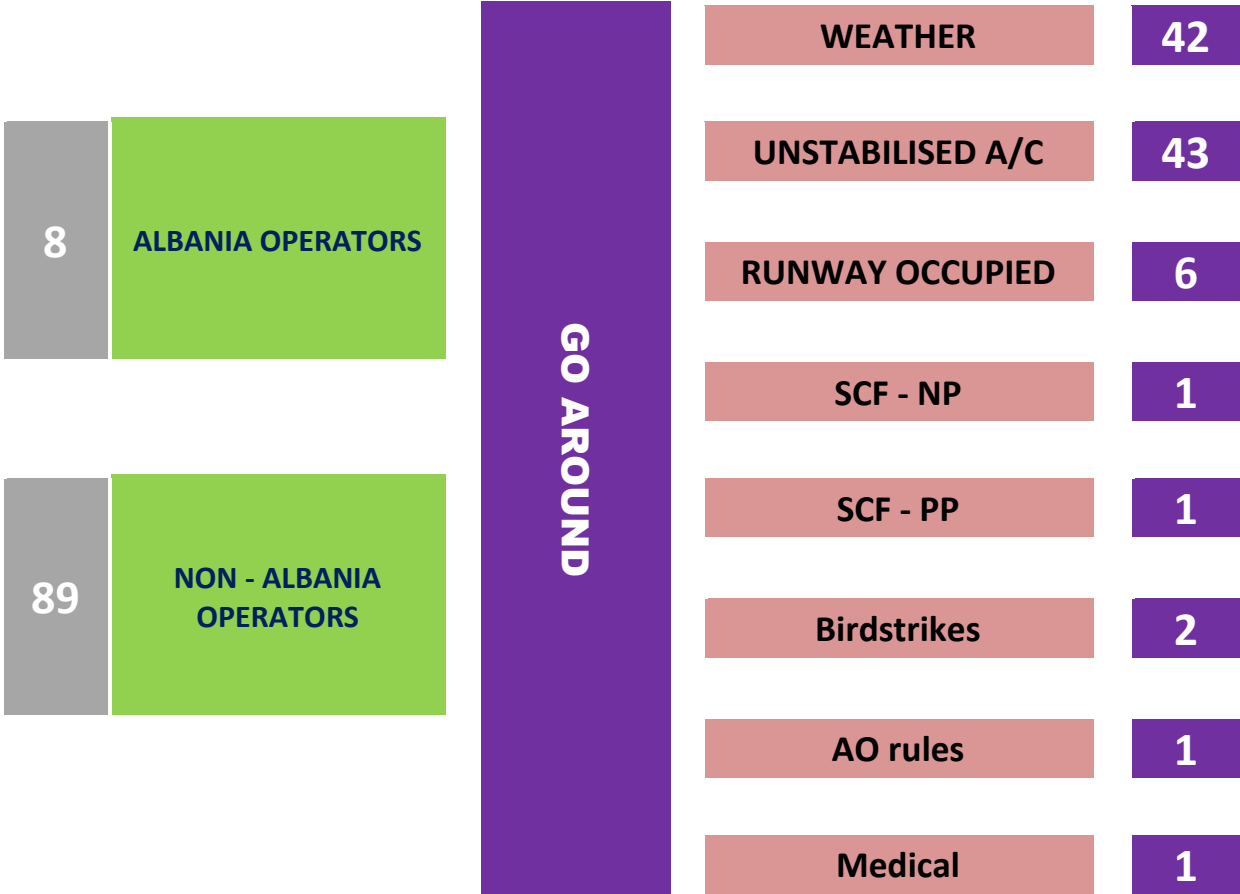
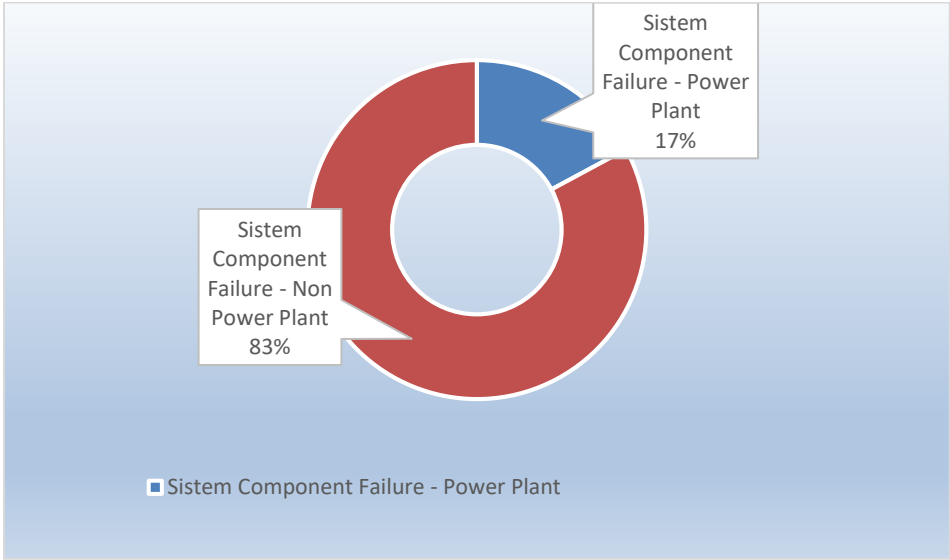


Chart 14: Nr. of Occurrences 2023, related with Aircraft – A/C.



Safety Analysis/Investigation of Occurrences

All incidents are investigated through follow-up of occurrences. It is part of operational policy to conduct an in-house independent & formal investigation following an accident or incident even though it may also be the subject of a government investigation.

Investigations consist of collecting and analysing events, determining causal and contributing factors, drawing up conclusions and making safety recommendations as applicable. Investigations are carried out in the case of:

1. accidents and incidents;
2. discovery of new hazards and risks;
3. recurrent safety risks.

The investigation seeks to determine not only the immediate causes, but the latent conditions and inadequacies in the SMS.

During the year 2023, Albawings has performed 4 occurrence investigations. Air Albania didn't perform any investigation for this year.

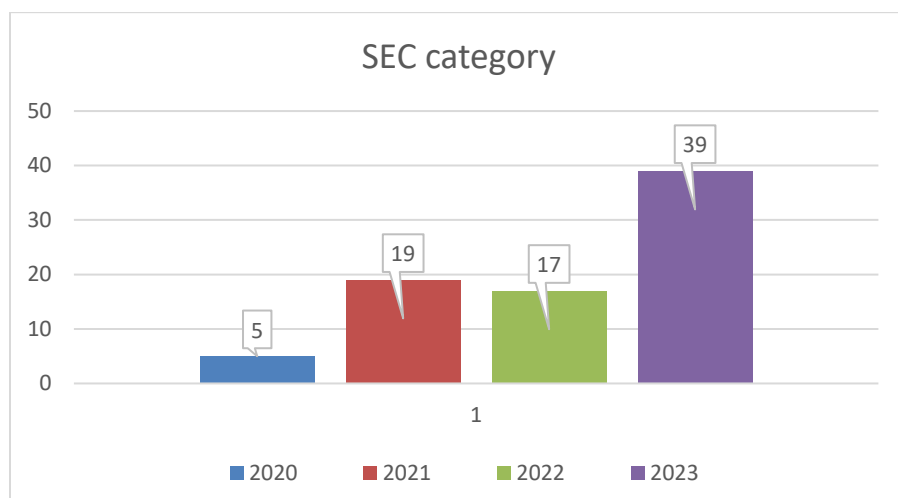
Some Conclusions/Recommendations identified during these safety investigations are as below:

1. Safety Department to publish an internal Safety Bulletin, to all Flight Crews containing information on what happened, investigation results and what steps have been taken.
2. Safety Department to collaborate with the Flight Operations Department for improving/updating the SOP's related to fuel balancing.
3. A confidential 'face-to-face' debrief of Flight Crew with their Flight Crew Representative (FCR) to be initiated by the Safety Manager. This process in line with the AWT FDM Procedures described in MSM Appendix 2 Ch. 2.5.3.1.
4. The FONP/CTNP to publish a bulletin which will serve to increase awareness among the AWT Flight Crews regarding the correct procedures to be followed in case of Go-Around phase. The bulleting should contain: event description (without detailing any Flight Data related), conclusions drawn from this investigation and what should be considered by Flight Crew in case of similar events.
5. The CTNP should emphasize the correct Go-Around profile during the next AWT SIM Sessions.



This section addresses the occurrences related to security. Mostly these kinds of occurrences are reported by ALBCONTROL sh.a. as “Laser Beam”.

Chart 15: Nr. of occurrences related to SEC category.



During the year 2023, were reported 34 Laser Illumination and 5 Unruly PAX, under SEC category. From the chart above it is very easy noted the increase of Laser Illumination occurrences reported during this period.



Laser illumination attacks have increased significantly around the world. These types of attacks pose a great risk to the safe operation of the aircraft. The laser light hitting at a particular angle can illuminate the entire cockpit (with a bright green or red light) and blind the pilots. Laser illumination A has not caused an accident, but this effect can disorient pilots at a crucial moment. This type of incident is a potential risk to aircraft safety, especially during final approach.

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