Malta Civil Aviation Safety Report 2025

Civil Aviation Directorate

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e: aviationsafety.tm@transport.gov.mt

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Abbreviations

ADREP	Accident/Incident Data Reporting
AOC	Air Operator Certificate
ATC	Air Traffic Control
BAAI	Bureau of Air Accident Investigation (Malta)
CA	Competent Authority
TM-CAD / CAD	Transport Malta Civil Aviation Directorate / Civil Aviation Directorate
CAT	Commercial Air Transport
CFIT	Controlled Flight into or Toward Terrain
EASA	European Aviation Safety Agency
ECCAIRS	European Co-ordination centre for Accident and Incident Reporting Systems
EPAS	European Plan for Aviation Safety
EU	European Union
FOD	Foreign Object Debris / Foreign Object Damage
GA	General Aviation
GH	Ground Handling
GHSP	Ground Handling Service Provider
ICAO	International Civil Aviation Organisation
KRA	Key Risk Area
LOC-I	Loss of Control In-flight
MAC	Mid-Air Collision
MOR	Mandatory Occurrence Report
NoA	Network of Analysts
RA	Resolution Advisory
RE	Runway Excursion
RI	Runway Incursion
RNO	Return to Normal Operations
SAFA	Safety Assessment of Foreign Aircraft
SCU	Safety and Compliance Unit (TM-CAD)
SMS	Safety Management System
SPAS	State Plan for Aviation Safety
SPI	Safety Performance Indicator
SPT	Safety Performance Target
SSP	State Safety Programme
TA	Traffic Advisory
TCAS	Traffic Collision Avoidance System
TMA	Terminal Manoeuvring Area
UAS	Unmanned Aircraft Systems

Executive Summary

The Malta Civil Aviation Safety Report provides an analytical overview of civil aviation safety data for 2025, with comparative insights from 2021 to 2024. The report is primarily based on information extracted from the Transport Malta Civil Aviation Directorate (CAD) occurrence reporting system, in accordance with Regulation (EU) 376/2014. It also incorporates data from the Bureau of Air Accident Investigation Malta (BAAI) and includes a status update on the implementation of safety actions outlined in the Malta State Plan for Aviation Safety (SPAS).

While the aviation industry continues to adapt to evolving operational demands, challenges such as workforce shortages and the maintenance of established knowledge and skillsets persist. Geopolitical instability and operations in conflict zones remain an ongoing concern, with GPS interference and spoofing continuing to be reported globally. These developments underscore the importance of implementing robust risk mitigation strategies.

In 2025, the Maltese aviation sector, particularly operations under the 9H aircraft register, continued to grow. Over 8,800 Mandatory Occurrence Reports (MORs) were submitted from various sources, the majority from aircraft operators. This strong reporting culture, supported by systematic follow-ups and report closures, reflects a maturing safety culture within the industry. Regrettably, one aircraft accident occurred in 2025, resulting in fatalities. Our thoughts remain with the families and individuals affected.

Among occurrences classified as incidents, the leading categories were navigation events related to GPS spoofing, aerodrome-related events, system or component failures, birdstrikes, and other operational hazards. These patterns remain consistent with trends observed in previous years.

This report provides aviation stakeholders and the public with a transparent overview of Malta's civil aviation safety performance. It highlights key safety issues and emerging risks, supported by data from both national sources and international partners, including the European Union and ICAO.

Produced by the Safety and Compliance Unit (SCU) within TM-CAD, the Malta Civil Aviation Safety Report supports the continuous monitoring and improvement of Malta's Safety Performance Indicators (SPIs) and Safety Performance Targets (SPTs), in line with the SPAS. These activities form an integral part of Malta's State Safety Programme (SSP), ensuring that national oversight, data-driven decision-making, and proactive safety management remain aligned with ICAO's Global Aviation Safety Plan and European safety strategies.

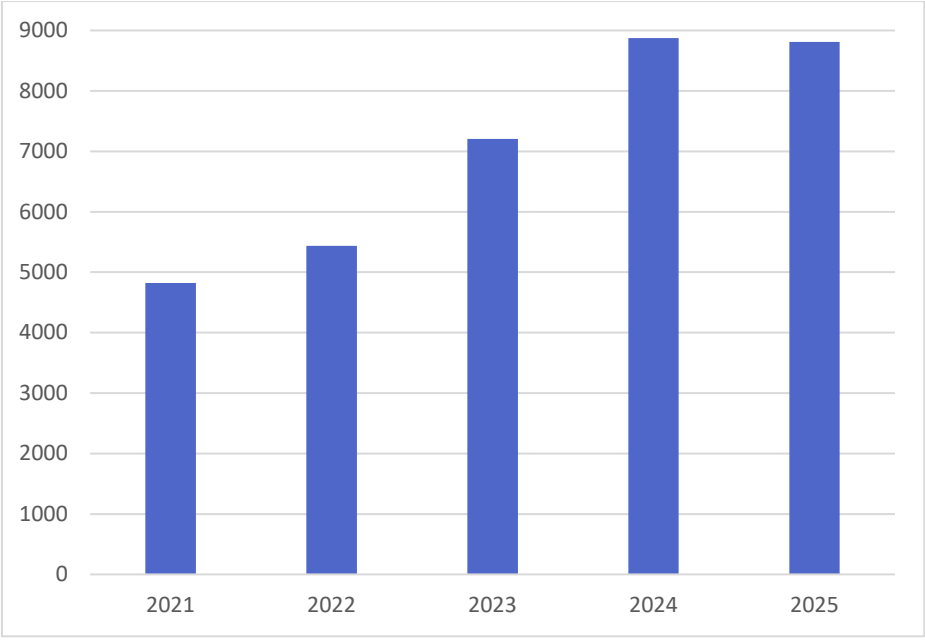
Occurrence Reports

Occurrence reporting is a key component of proactive safety management, contributing to the identification of safety-related issues and supporting the development of preventative measures and strategies to mitigate undesired outcomes while enhancing overall aviation safety. Over the years, the Civil Aviation Directorate (CAD) has observed a steady increase in the number of occurrence reports received and analysed. This rise can be attributed to three principal factors:

- the introduction of an EU-wide legal framework for mandatory reporting through Regulation (EU) No 376/2014;
- the efforts undertaken by the CAD to promote a positive safety reporting culture among aviation stakeholders; and
- the continued growth of aviation activity in Malta, alongside an increase in organisations under the oversight of the CAD.

Occurrence reports may be submitted to the CAD via a publicly accessible web-based portal available on the Transport Malta website, which can be used by any individual or organisation wishing to report a safety concern or observation. The European Commission's aviation reporting portal (ECCAIRS 2.0) redirects users to the CAD occurrence reporting portal when a report is intended for submission to the CAD. All reports submitted to the national database are stored and managed in strict confidence.

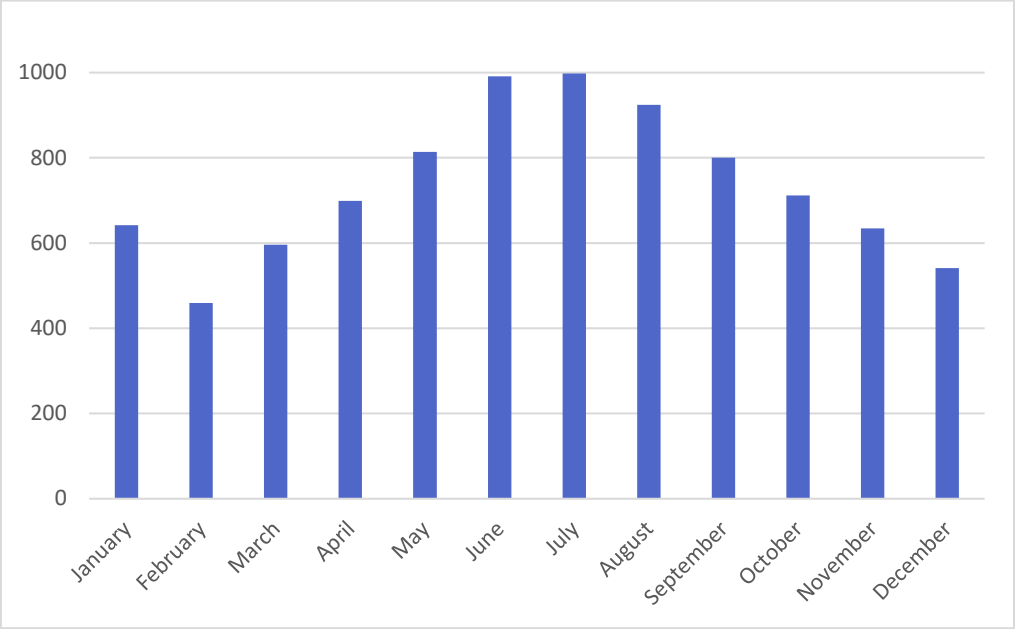
Graph 1 illustrates the number of Mandatory Occurrence Report (MOR) events submitted to the national database and analysed by CAD between 2021 and 2025. A clear upward trend in occurrence report submissions can be observed over the years, largely reflecting the growth experienced within the Maltese aviation sector and the increased activity of aircraft operators during this period. The occurrence categories for these events are presented in Graph 9.



Graph 1 - Number of MOR events submitted to TM-CAD (2021-2025)

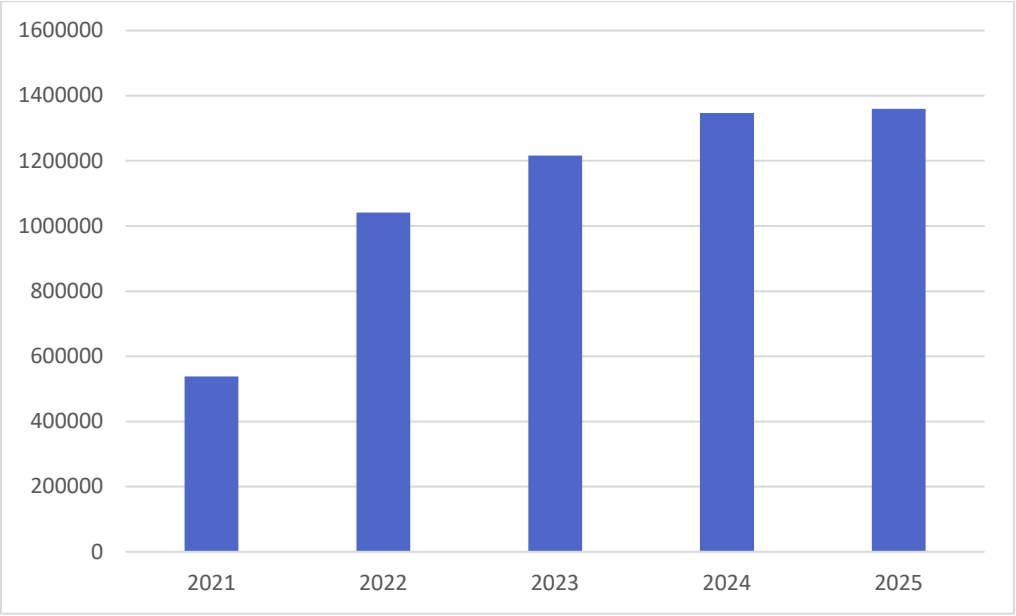
Graph 2 presents a monthly breakdown of the number of events submitted to the national database. Of these, the CAD classified over 8,800 events as Mandatory Occurrence Reports (MORs). This figure suggests that reporting levels are stabilising, reflecting continued organisational growth and a maturing reporting culture.

The national database recorded peaks of over 900 reports during the busy summer travel period (June to August). On average, approximately 730 events were reported per month, which is consistent with the previous year. The overall reporting pattern also mirrors that observed in 2024.



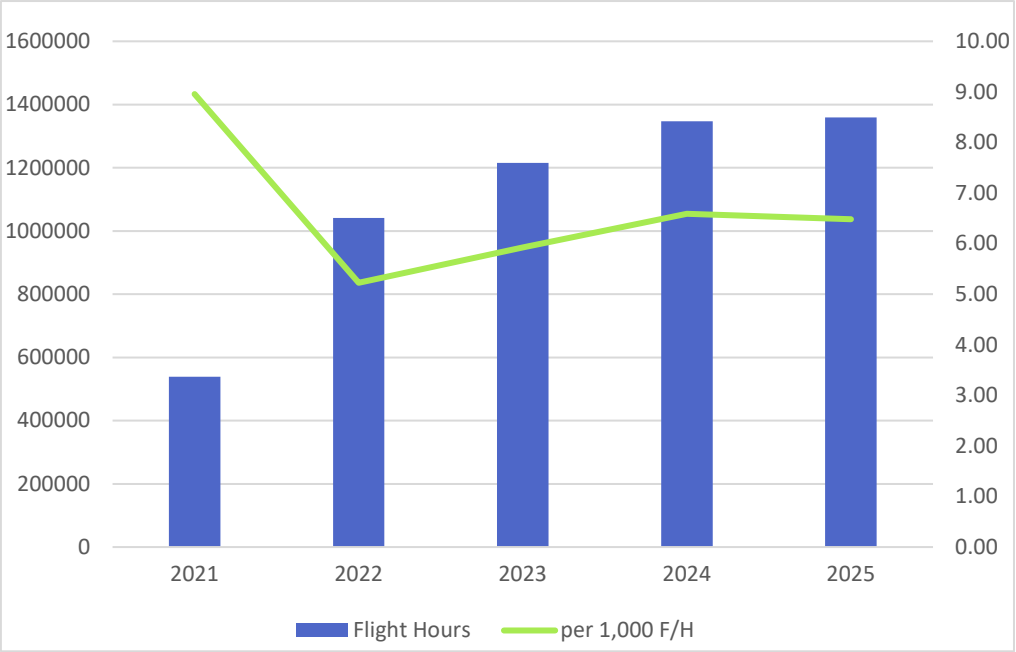
Graph 2 - Monthly MOR reports recorded by TM-CAD in 2025

Graph 3 shows the total flying hours (commercial) operated by Air Operator Certificate (AOC) holders under TM-CAD oversight. The exhibit shows a yearly increase in operational activity year on year, reaching more stable numbers in 2025.



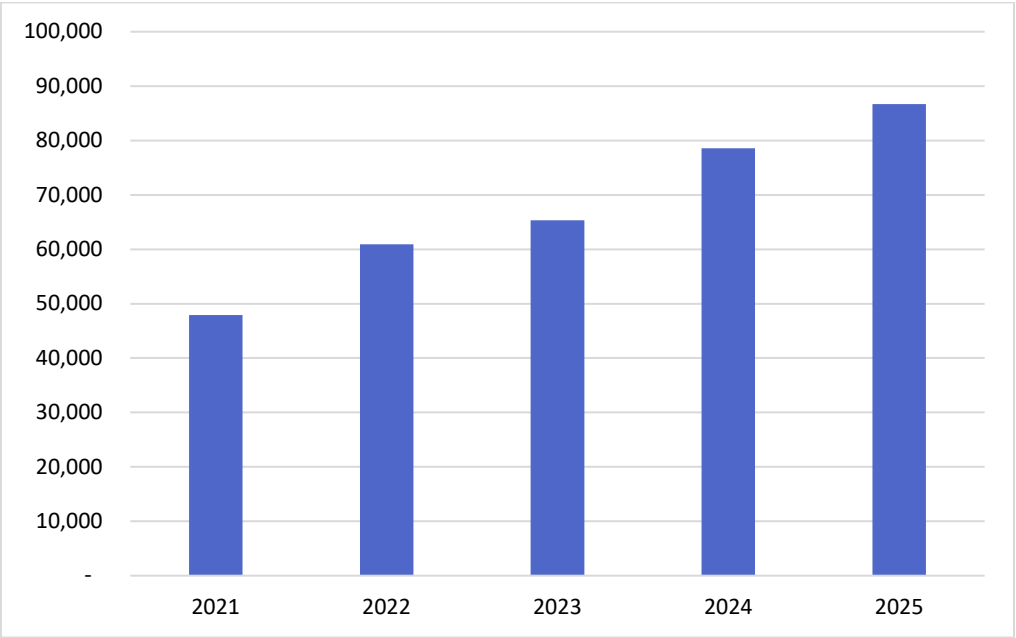
Graph 3 - Flying hours of AOC holders per year (2021-2025)

In addition to the yearly figures, Graph 4 provides a relative value of MOR submissions per 1,000 flying hours (commercial). The value presented is only relevant to the MORs submitted by aircraft operators. One can note a stable reporting trend, which is mathematically at 6.5 reports, and rounded to 7 reports per 1,000 flying hours.



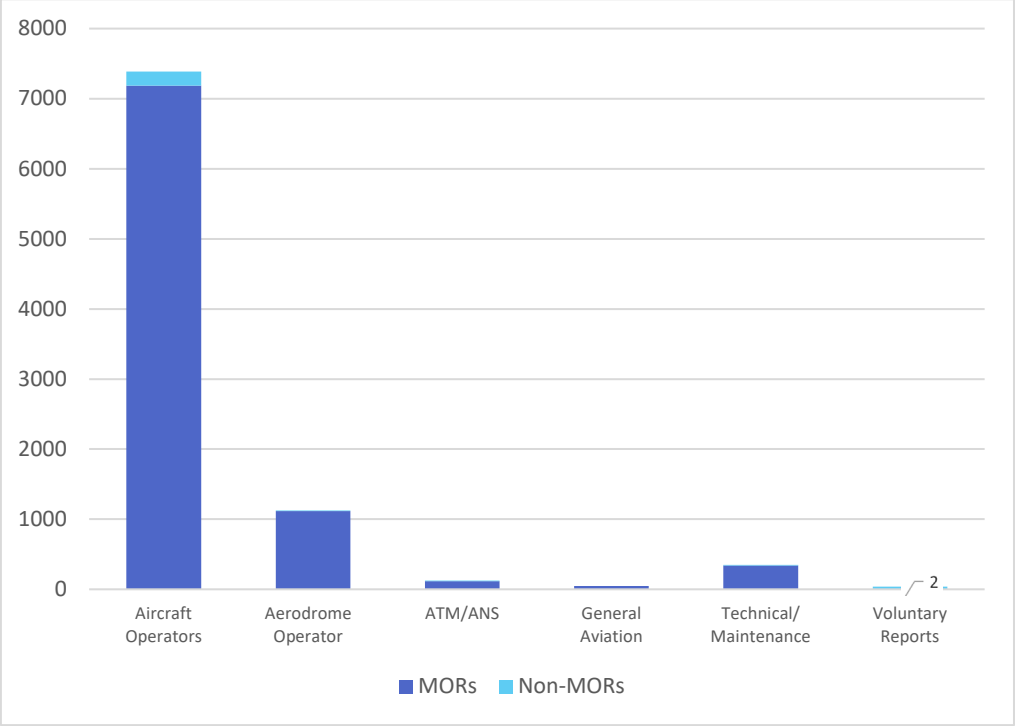
Graph 4 - MOR submissions by Aircraft Operators relative to flying hours (2021-2025)

Alongside flight hours, aircraft movements at Malta Aerodrome (Luqa) represent another key parameter under consideration. Aircraft movements at the national aerodrome have shown a year-on-year increase, with scheduled and local operations being the main contributors to this rise in the current year. The five-year trend in aircraft movements at Luqa Aerodrome is illustrated in Graph 5.



Graph 5 - Aircraft movements (excl. Military) at Luqa aerodrome (2021-2025)

The source of the Occurrence Reports submitted in 2025 is presented in Graph 6 below. It is important to point out that the same event may have been reported from multiple sources. In such cases, TM-CAD SCU merges duplicate reports to reflect one event. The voluntary report values shown in the graph represent reports that, following investigation, were confirmed to constitute a safety risk or regulatory breach. The source of reports compares to the previous years' trends.



Graph 6 - Source of Occurrence Reports (2025)

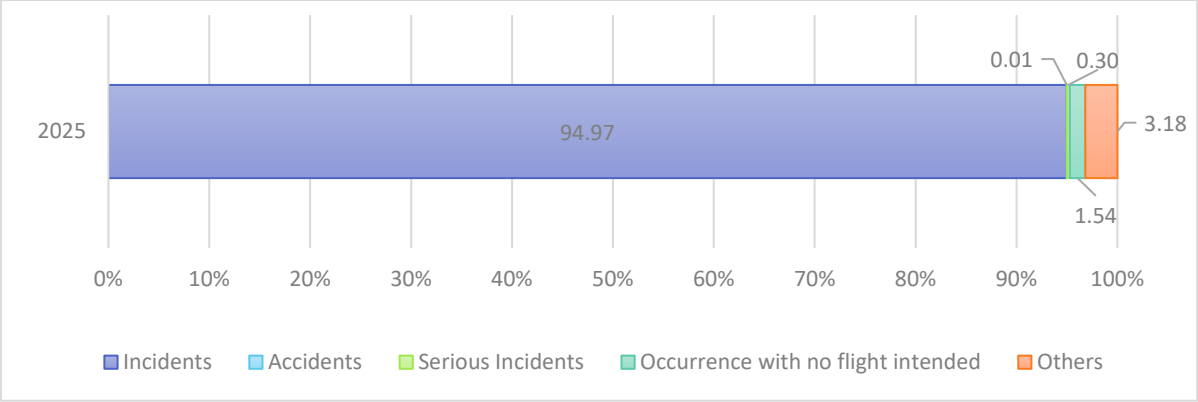
Occurrence Class

As part of the analysis process conducted by the CAD, each occurrence report submitted to the national database is classified under one of the following occurrence classes:

- Accident
- Incident
- Serious incident
- Occurrence without safety effect
- Occurrence with no flight intended

Such classification is based on the ICAO ADREP taxonomy guidance material and reference to the definitions deriving from regulation (EU) 996/2010, of which 'accident', 'incident' and 'serious incident' are presented in Appendix I of this report.

The majority of MORs received are classified as 'incidents'. Graph 7 presents the percentage distribution of occurrence classifications. The category labelled 'Others' includes event classes commonly associated with EUROCONTROL terminology (for example, occurrences without safety effect), as well as occurrences where no flight was intended, typically identified during maintenance activities. It is also noted, with deep regret, that one fatal accident was recorded during the reporting period. This tragic event underscores the importance of continued vigilance and the ongoing commitment of all stakeholders to further strengthen aviation safety.



Graph 7 - Occurrence Class (% of total)

The proportion of reports classified as 'incidents' is higher than that recorded in the previous year. An increase has also been observed in the 'occurrence with no flight intended' category, indicating a rise in the reporting of technical-related events identified when the aircraft is not in operation.

Reports classified as 'serious incidents' have increased slightly compared to the previous reporting period. It should be noted, however, that such occurrences are exceptional in nature and cannot be attributed to any single occurrence category. Events within this classification typically involve significant aircraft damage or the activation of the final layer of safety protection, which, if ineffective, could result in an accident. Notwithstanding their severity, not all serious incidents are subject to formal investigation. The safety investigation authority may exercise discretion, particularly in cases involving smaller aircraft or where no serious injuries have occurred, in accordance with applicable EU regulations.

Occurrence Categories

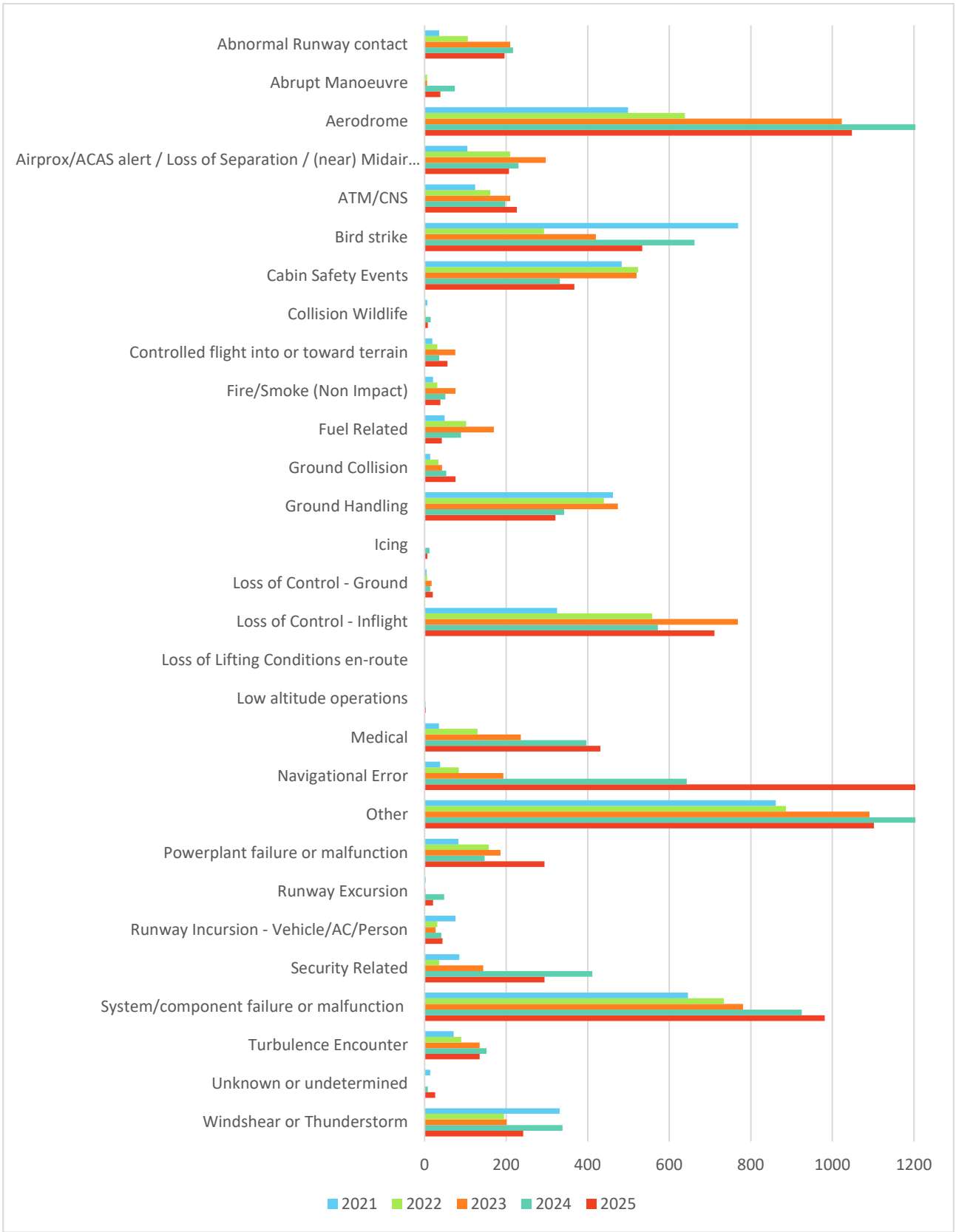
As part of its safety oversight function, the CAD ensures that each occurrence reported to the national database is classified under a structured categorisation framework. This enables high-level visibility of safety events and trends, and supports effective analysis, monitoring, and risk management. To ensure consistency and alignment with international best practices, TM-CAD applies the ICAO Accident/Incident Data Reporting (ADREP) taxonomy. Specifically, categorisation is guided by the CAST/ICAO Common Taxonomy Team (CICTT) publication: "Aviation Occurrence Categories – Definitions and Usage Notes." These harmonised definitions and taxonomies allow the global aviation community to better identify and respond to common safety concerns by standardising the classification of events across jurisdictions.

The table below summarises the key occurrence categories used by TM-CAD, including their ICAO abbreviations and definitions:

Taxonomy abbreviation	***Description***	***Taxonomy abbreviation***	***Description***
ARC	Abnormal Runway Contact	**LOC-G**	Loss of Control-Ground
AMAN	Abrupt Manoeuvre	**LOC-I**	Loss of Control-Inflight
ADRM	Aerodrome	**LOLI**	Loss of Lifting Conditions En-Route
MAC	Airprox/TCAS Alert/Loss of Separation/Near Mid-Air Collisions/Mid-Air Collisions	**LALT**	Low Altitude Operations
ATM	ATM/CNS	**MED**	Medical
BIRD	Bird strike	**NAV**	Navigation Errors
CABIN	Cabin Safety Events	**OTHR**	Other
CTOL	Collision with Obstacle(s) during Take-Off and Landing	**RE**	Runway Excursion
CFIT	Controlled Flight Into or Toward Terrain	**RI**	Runway Incursion
EVAC	Evacuation	**SEC**	Security related
EXTL	External Load Related Occurrences	**SCF-NP**	System/Component Failure or Malfunction (Non-Powerplant)
F-NI	Fire/Smoke (non-impact)	**SCF-PP**	System/Component Failure or Malfunction (Powerplant)
F-POST	Fire/Smoke (post-impact)	**TURB**	Turbulence Encounter
FUEL	Fuel related	**USOS**	Undershoot/Overshoot
GTOW	Glider Towing related events	**UIMC**	Unintended Flight in IMC
GCOL	Ground Collision	**UNK**	Unknown or Undetermined
RAMP	Ground Handling	**WILD**	Collision Wildlife
ICE	Icing	**WSTRW**	Wind Shear or Thunderstorm

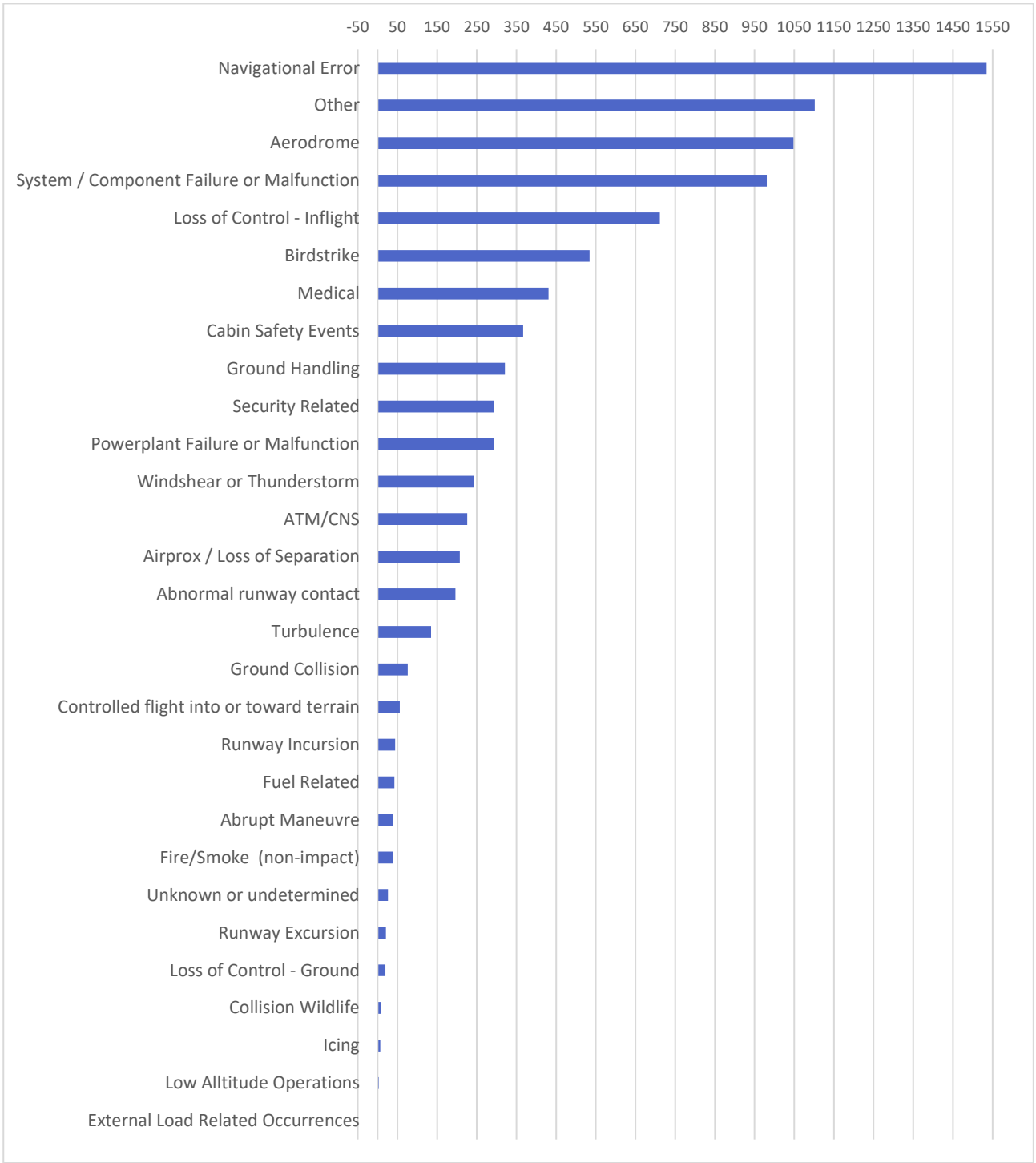
Occurrence Categories based on ICAO ADREP taxonomy

Graph 8 shows the occurrence categories submitted to the national database between 2021 and 2025. This visual provides a preview of the ADREP categories reported and provides the basis for further analysis within that specific category as addressed in this report.



Graph 8 - Occurrence categories of MOR events (2021-2025)

Graph 9 illustrates the occurrence categories reported in 2025, arranged in descending order. The most frequently reported categories identified in Graph 8 are once again observed, however, the category with the highest number of events does not necessarily correspond to the greatest safety risk. The CAD continues to monitor these categories closely to ensure that the observed increase does not have an adverse effect on operational safety, and to assist operators and organisations in defining and managing relevant Safety Performance Indicators (SPIs) and Safety Performance Targets (SPTs).



Graph 9 - Occurrence categories of MOR events in descending order (2025)

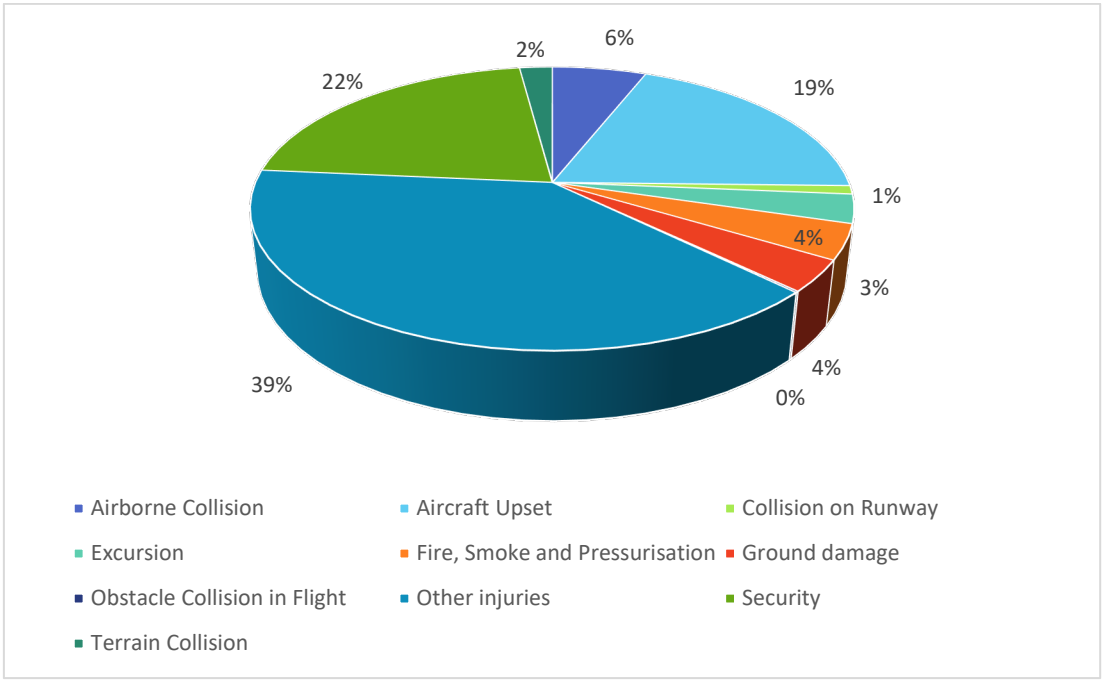
Key Risk Areas

Following the introduction of the European Risk Classification Scheme (ERCS) for national authorities, the CAD began incorporating the Key Risk Areas (KRAs) data field into its event analysis. The KRAs represent the potential accident outcomes that the European Union Aviation Safety Agency (EASA) aims to prevent through its safety initiatives.

This marks the second year in which this data has been recorded. It is anticipated that, with continued application and increased familiarity with the process, this method of analysis will be further refined and enhanced, thereby improving the overall quality and value of the insights derived.

The events are being grouped under one of the following ten KRAs:

- Airborne Collision
- Aircraft Upset
- Collision on Runway
- Excursion
- Fire, Smoke and Pressurisation
- Ground Damage
- Obstacle Collision in Flight
- Other Injuries
- Security
- Terrain Collision



Graph 10 - Key Risk Area (%) of total reports

The analysis of the Key Risk Areas (KRAs) indicates that the largest proportion of occurrences were classified under 'Other Injuries'. This category encompasses events that do not directly correspond to the predefined

KRAs, including those related to ground handling, maintenance activities, cabin safety issues, turbulence encounters, and similar operational occurrences.

Notable contributions were also identified in the Aircraft Upset and Security KRAs, highlighting areas that continue to warrant focused risk mitigation efforts. Other frequently recorded classifications included Airborne Collision, Fire, Smoke and Pressurisation, and Terrain Collision, reflecting a range of operational and environmental challenges that remain pertinent to flight safety oversight.

These findings support the CAD in further refining its risk-based oversight approach and in aligning national safety initiatives with European objectives under the ERCS.

Specific Occurrence Category Analysis

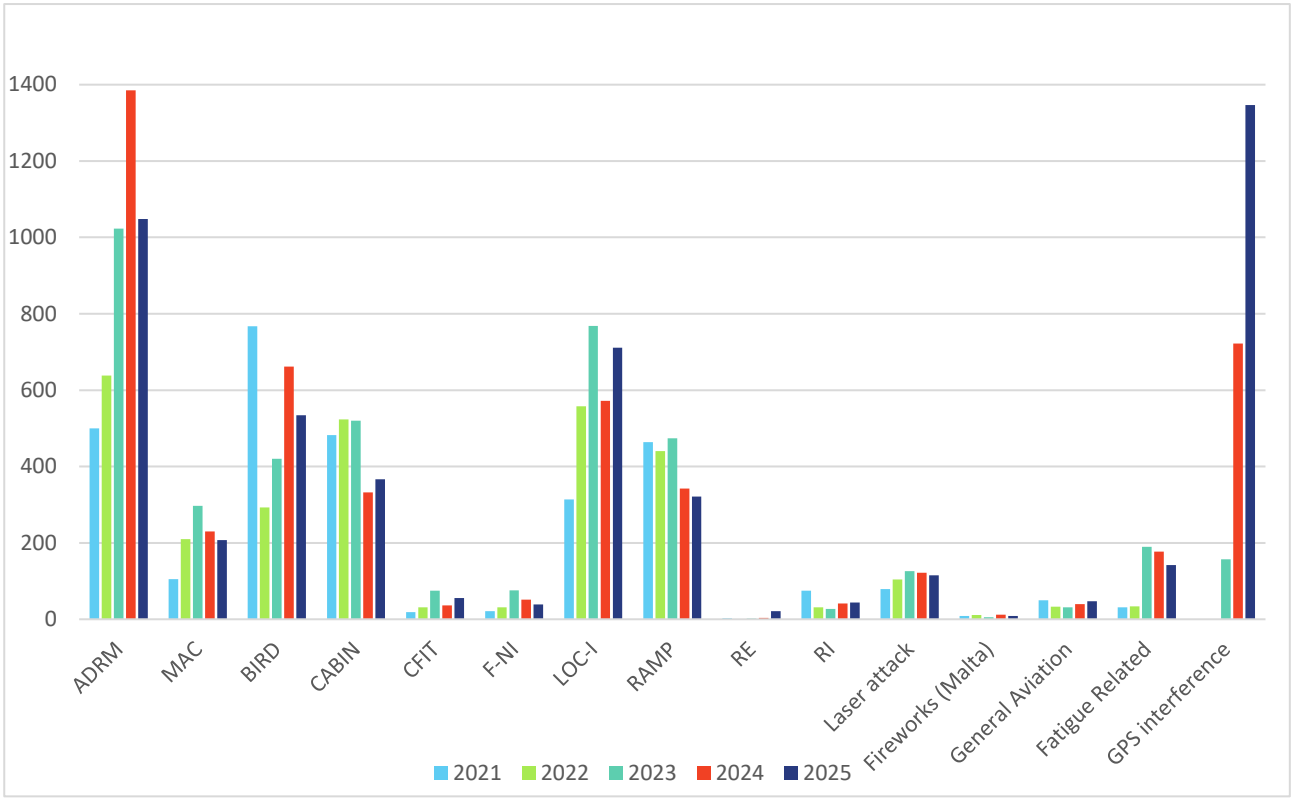
The following occurrence categories are being monitored and analysed as part of the threats deriving from the EPAS, SPAS in Malta and due to commonality of events which require addressing.

The analysis highlights the following categories:

- Aerodrome (ADRM)
- Airprox/TCAS Alert/Loss of Separation/Near Mid-Air Collisions/Mid-Air Collisions (MAC)
- Bird strike (BIRD)
- Cabin safety events (CABIN)
- Controlled Flight Into or Toward Terrain (CFIT)
- Fire/Smoke (non-impact) (F-NI)
- Loss of Control Inflight (LOC-I)
- Ground handling (RAMP)
- Runway Excursion (RE)
- Runway Incursion (RI)

Moreover, the analysis also sheds light on the number of events for specific local occurrences related to Fireworks, UAS, Laser attacks and General Aviation reports. Information about Fatigue-relevant reports is also being monitored.

Graph 11 provides a visual aid of the number of reports received between 2020 and 2025 for these specific events.



Graph 11 - MOR events per category/domain under review (2021-2025)

Graph 11 illustrates the distribution of occurrence categories over the period 2021 to 2025, highlighting both year-on-year variations and emerging trends across key operational domains.

A notable and consistent increase is observed in the ADRM category, which remains one of the most frequently reported occurrence types throughout the period, peaking in 2024 before stabilising slightly thereafter. Similarly, LOC-I occurrences show a marked rise, particularly in 2023 and 2025, indicating a potential area of continued safety focus.

BIRD strike reports demonstrate some fluctuation, with a peak in 2021 followed by a gradual decline and partial recovery in subsequent years. CABIN-related occurrences remain relatively stable across the reporting period, suggesting a consistent level of reporting in this area. In contrast, RAMP occurrences exhibit a gradual decrease after 2022, which may reflect improvements in ground operations or changes in reporting behaviour.

Lower-frequency categories such as CFIT, F-NI, RE, RI, and Fireworks (in Malta) remain comparatively minimal, with only minor variations observed year on year. Laser attack reports show a slight increase over time before stabilising, while General Aviation occurrences remain consistently low. Of particular note is the significant rise in GPS interference reports, especially in 2025, representing a substantial increase compared to previous years. This trend highlights an emerging risk area. Fatigue-related occurrences also show some variability, with a noticeable increase in recent years, reflecting increased operations.

Overall, the chart indicates a general upward trend in reporting across several key categories, reflecting both increased operational activity and a maturing reporting culture. At the same time, it highlights specific areas, such as LOC-I and GPS interference, where enhanced oversight and targeted safety actions may be warranted.

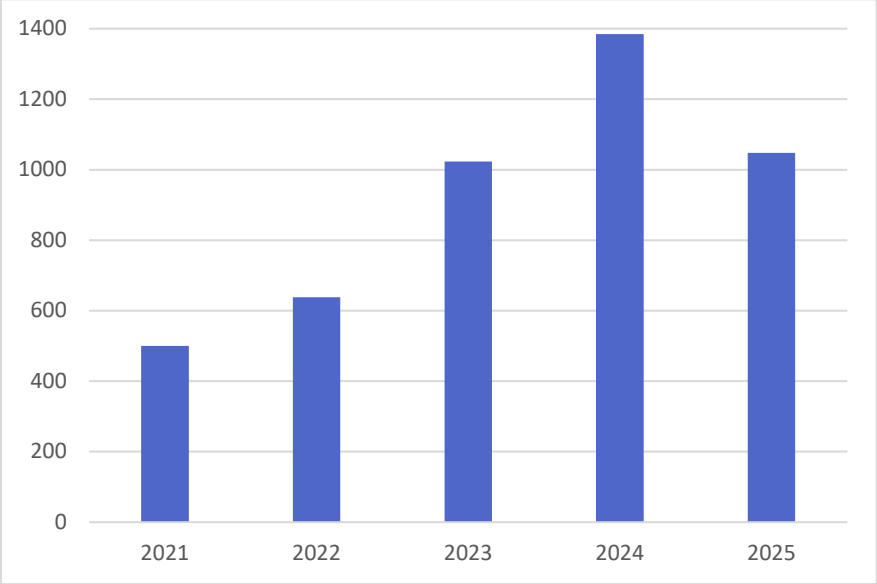
Aerodrome (ADRM)

The events categorised under ADRM are derived from the Luqa aerodrome operator. This category includes FOD runway/taxiway control, aerodrome lighting, surface conditions as well as markings and signage. Moreover, it also incorporates occurrences related to aerodrome design, serviceability, and infrastructure functionality. It is important to note that occurrences related to Bird strikes at aerodromes and ground handling are not included in this category. These are classified under BIRD and RAMP-specific respectively.

As illustrated in Graph 12, 2024 showing the highest volume recorded in the past five years. The decrease in reports in 2025 is likely attributable to a new approach adopted by the CAD regarding the types of reports submitted to the national database. Nevertheless, reporting statistics continue to be discussed during periodic meetings with relevant stakeholders at the local level. Detailed analysis of these reports reveals recurring themes that require continued attention, including the presence of FOD, wildlife activity within the aerodrome perimeter, and maintenance-related issues, particularly those involving surface conditions and general aerodrome upkeep such as grass cutting and clearing.

While 2025 represents a reduction compared to the peak recorded in 2024, the figure remains significantly higher than those reported in the earlier years of the period under review. This may suggest a degree of stabilisation following a period of rapid growth, rather than a decline in reporting effectiveness. Overall, the trend depicted reflects a maturing occurrence reporting system, with consistently higher reporting levels

compared to the baseline year. Continued monitoring will be important to determine whether the reduction observed in 2025 represents a normalisation of reporting rates or the influence of other operational factors.



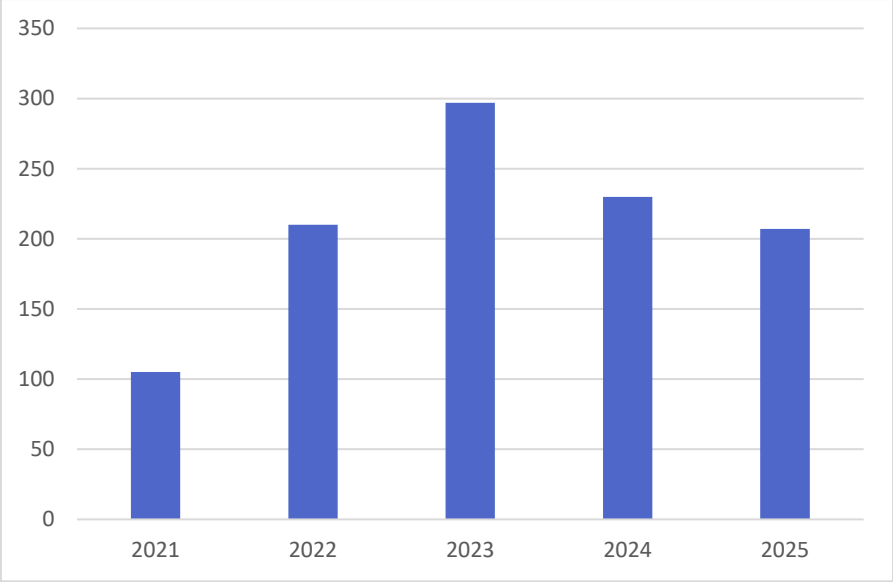
Graph 12 - Aerodrome (ADRM) category events (2021-2025)

Airprox/TCAS Alert/Loss of Separation/Near Mid-Air Collision/Mid-Air Collision (MAC)

This category includes occurrence events related to Airprox, TCAS alerts, loss of separation as well as near collisions or collisions between aircraft in flight. This aspect is of crucial importance towards a safe aviation environment. The CAD treats such events seriously and considers the occurrence class as a serious incident when evasive manoeuvres are actioned. Nevertheless, each event has its own impact of safety whereby separation criteria and resolution actions are taken into consideration when analysing each case.

Recent data indicate a further reduction in occurrences within this report category. Although MAC-categorised reports had previously shown an upward trend, with most events assessed as low-risk incidents, the sharp increase observed in 2023 prompted heightened monitoring to identify any potential systemic issues within operational environments. The subsequent decrease recorded in 2024, as illustrated in Graph 13, is a positive development and may suggest improvements in situational awareness, adherence to separation standards, and compliance with air traffic procedures.

Despite this encouraging decline, the CAD continues to maintain close oversight of this category to ensure that any emerging patterns or underlying factors are promptly identified. Given the potential severity associated with such events, continued collaboration with air navigation service providers and operators remains essential to sustaining and further strengthening safety performance in this area.



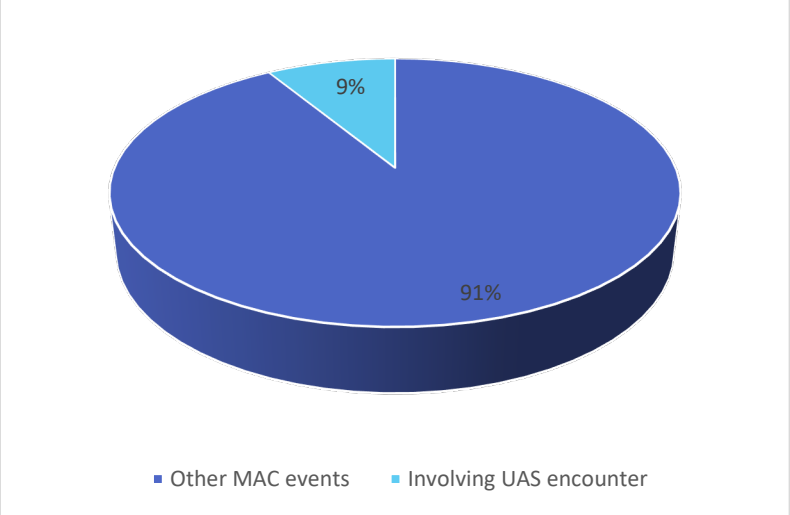
Graph 13 - Total MAC category events per year (2021–2025)

Unmanned Aircraft Systems (UAS)

The Mid-Air Collisions (MAC) occurrence category also encompasses reported events involving both manned and unmanned aircraft. This includes confirmed encounters as well as crew sightings, even when no evasive action was required. Such events continue to represent a safety concern, emphasising the need for a coordinated and systematic approach. The use of drones in military conflict zones further adds complexity to airspace risk management.

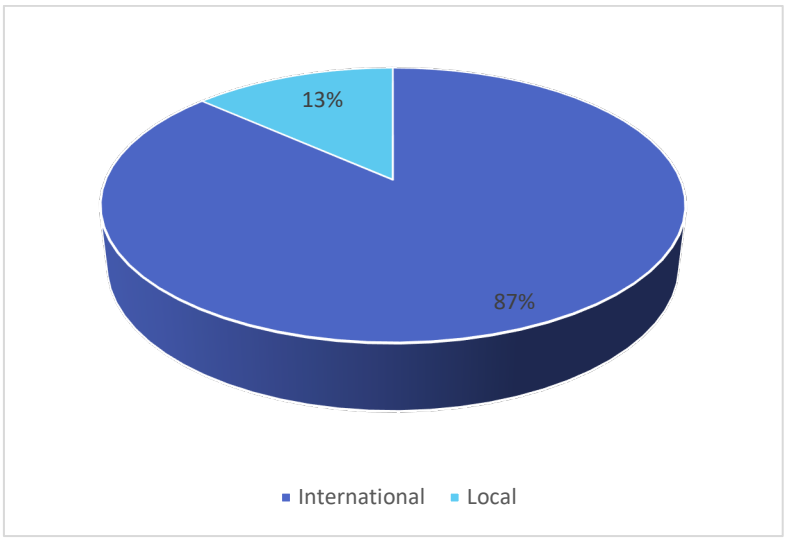
In 2025, at a regional level, discussions have highlighted sightings of drones at significantly higher altitudes than those typically observed with conventional drones. Sightings at such heights introduce new risks to commercial aviation, which must be addressed in a systematic manner. The rapid advancement of drone technology and battery capabilities further heightens these safety concerns, emphasising the need for coordinated management and collaboration among all stakeholders.

Graph 14 shows the proportion of UAS-related MAC events relative to total reports.



Graph 14 - Total MAC category events (% by event type, 2021–2025)

Graph 15 distinguishes between events occurring within Maltese airspace and those involving Maltese-registered aircraft operating abroad. Due to the nature of UAS operations, enforcement remains challenging, however, the CAD continues to collaborate with stakeholders to raise awareness of legal and safety responsibilities. In 2025, targeted safety campaigns were rolled out, and plans for further initiatives are in the pipeline.

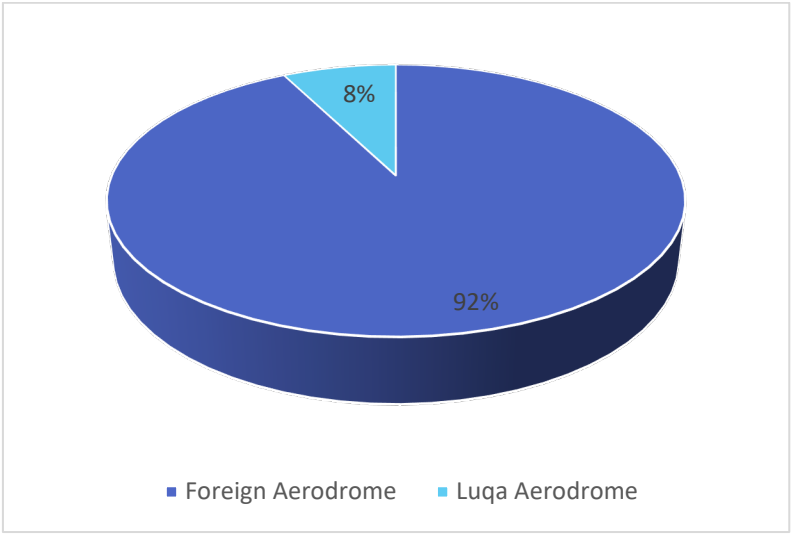


Graph 15 - UAS related events (% by location, 2021-2025)

Bird strikes (BIRD)

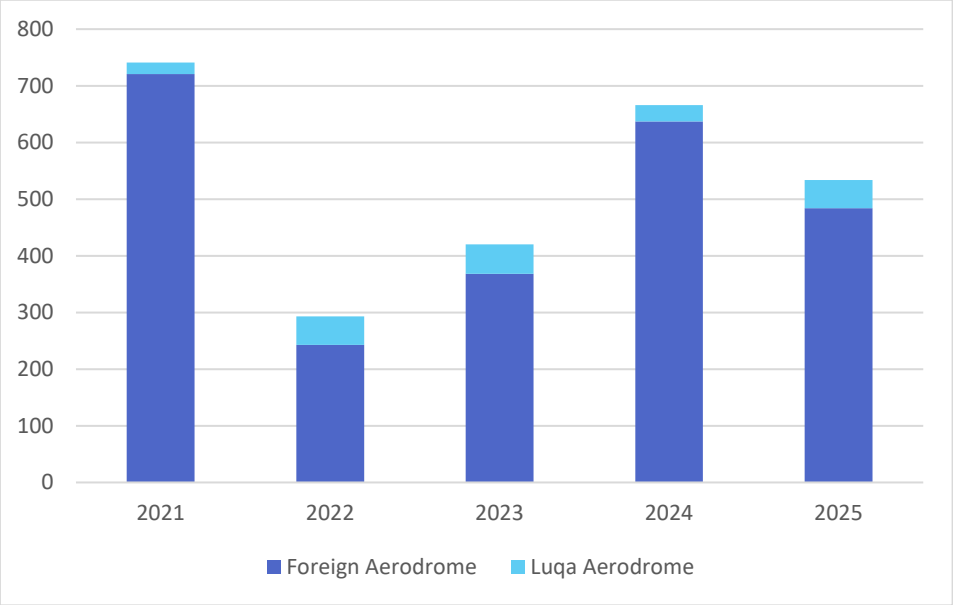
This category includes occurrences involving collisions/near collisions with bird(s)/wildlife. This natural phenomenon is highly dependent on the location of the aerodrome and surrounding areas. To aid our analysis, such events are separated into two sections, namely bird strikes reported at the only CAD certified aerodrome in Malta (Luqa) and bird strikes reported by Malta-registered operators at foreign locations.

Graph 16 presents the reported bird strikes as a percentage of events that occurred at the Luqa aerodrome and at foreign aerodromes involving Maltese-registered aircraft. The data covers the period between 2021 and 2025.



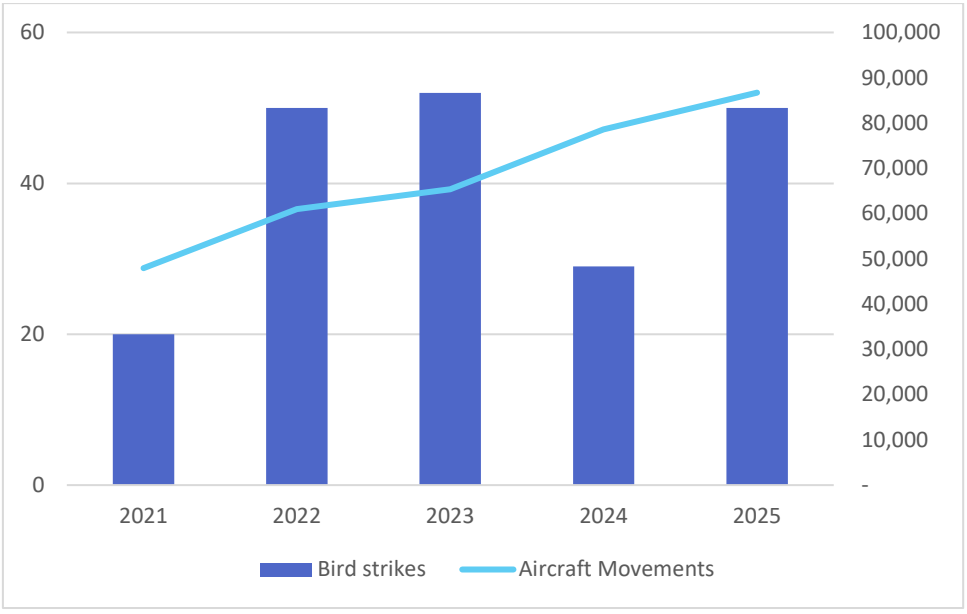
Graph 16 - Bird strike (BIRD) category events (% by location, 2021-2025)

Graph 17 presents the year-on-year bird strikes reported to the CAD. The data suggests a stabilised trend following the extraordinary decline observed in 2022.

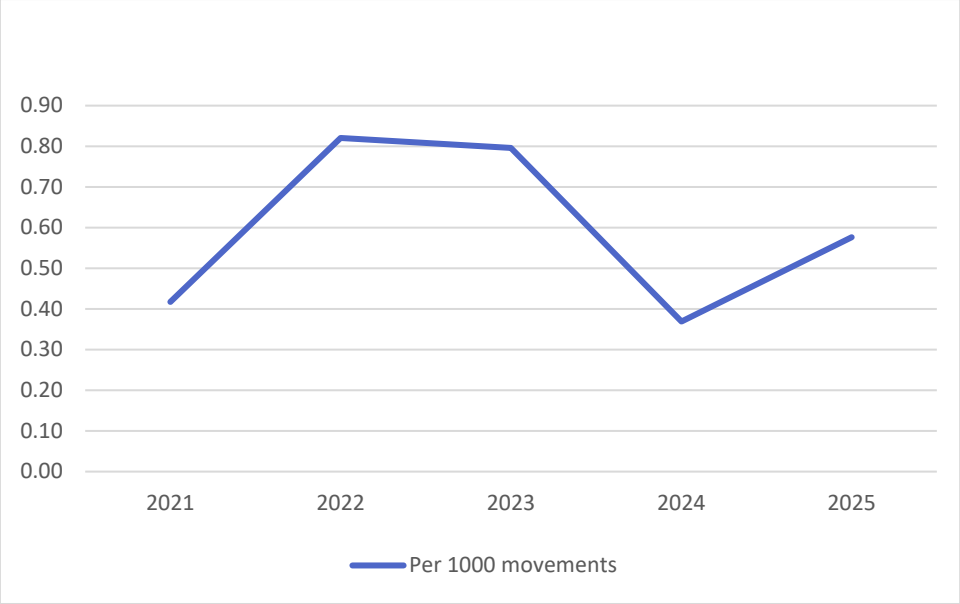


Graph 17 - Bird strike (BIRD) category events (number by location, 2021-2025)

When comparing the number of bird strikes at Luqa aerodrome with the total annual aircraft movements, a slight increase is observed from 2024, however, the figures remain below the levels recorded in 2022 and 2023. Graphs 18 and 19 illustrate the annual trend of bird strikes at Luqa aerodrome, including the rate per 1,000 movements.

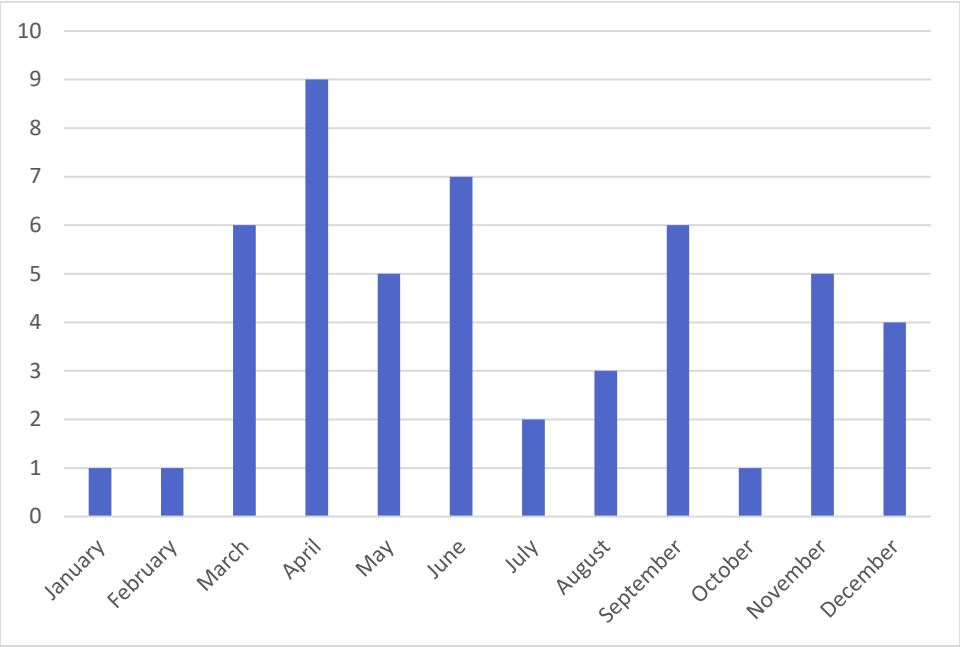


Graph 18 - Bird strike (BIRD) events at Luqa Aerodrome vs Aircraft Movement (2021-2025)

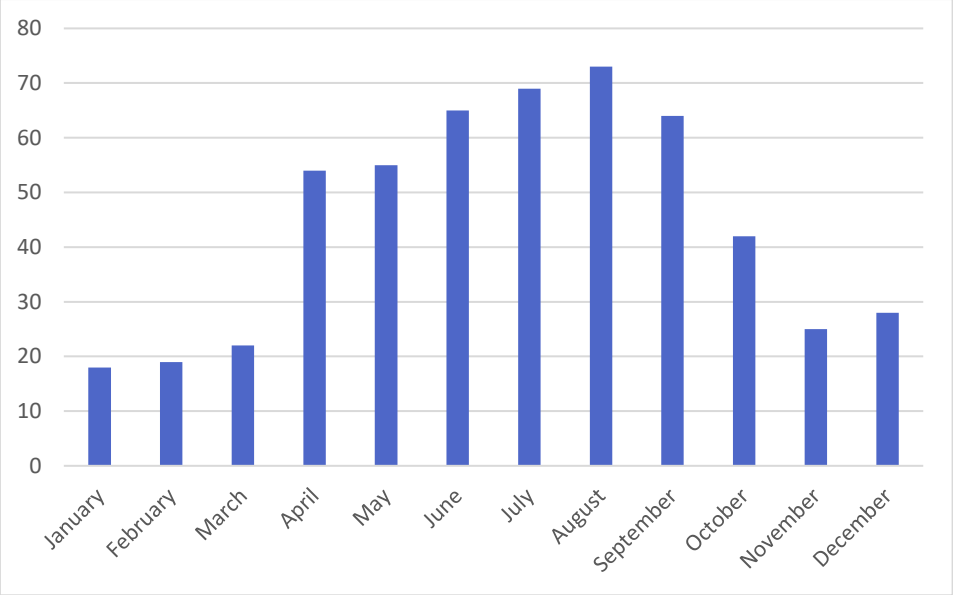


Graph 19 - Bird strike (BIRD) events at Luqa Aerodrome per 1,000 Aircraft Movements (2021-2025)

Graphs 20 and 21 provide a monthly view of the bird strike events as reported in 2025 to the National Database. Graph 20 shows the monthly bird strike events which occurred at Luqa aerodrome, while Graph 21 shows a monthly view of all the bird strike events reported to the National database.



Graph 20 - Bird Strike events reported monthly at Luqa Aerodrome (2025)

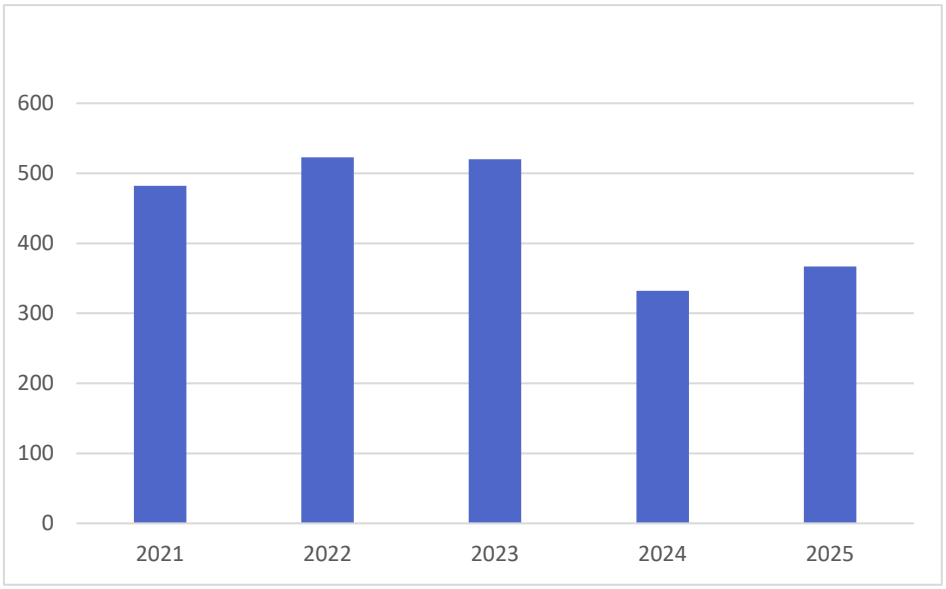


Graph 21 - Bird Strike events reported monthly to the National database (2025)

Cabin Safety Events (CABIN)

This occurrence category includes a wide range of occurrences taking place within the passenger cabin of transport aircraft. Analysis of recent data reveals that most of the cabin-related events are driven by unruly or disruptive passenger behaviour, including drunkenness and smoking in lavatories. These behaviours remain a persistent challenge across the aviation industry, with airlines and ground-handling agents continuing to implement preventive measures through training and awareness campaigns amongst others.

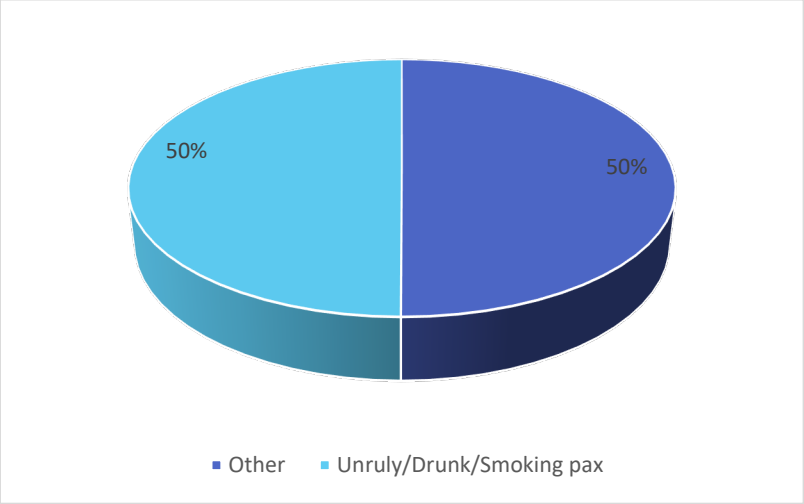
As illustrated in Graph 22, the number of cabin safety reports peaked between 2021 and 2023, before noting a decrease in subsequent years. This trend suggests a possible stabilisation trend, however, there may indicate emerging challenges that warrant continued monitoring and targeted interventions to maintain and enhance operational safety.



Graph 22 - Cabin Safety Events (CABIN) category (2021-2025)

The increasing use of electronic cigarettes during flight represents an emerging issue that requires closer monitoring and the development of targeted mitigation strategies. In addition, risks associated with lithium battery-powered devices and power banks remain a persistent concern.

For the period 2021-2025 disruptive passengers contribute to 50% of cabin safety reports linked to unruly behaviour, intoxicated passengers or smoking onboard as shown in Graph 23. Cabin safety reports not related to unruly passenger behaviour encompass a wide range of other in-flight occurrences, including passenger injuries, crew observations, baggage-related issues, and the use of portable oxygen and medical equipment. These highlight the diverse nature of cabin-related risks, while reinforcing the importance of maintaining a strong and proactive safety culture on board.



Graph 23 - Cabin Safety Events (CABIN) category (% by event type, 2021-2025)

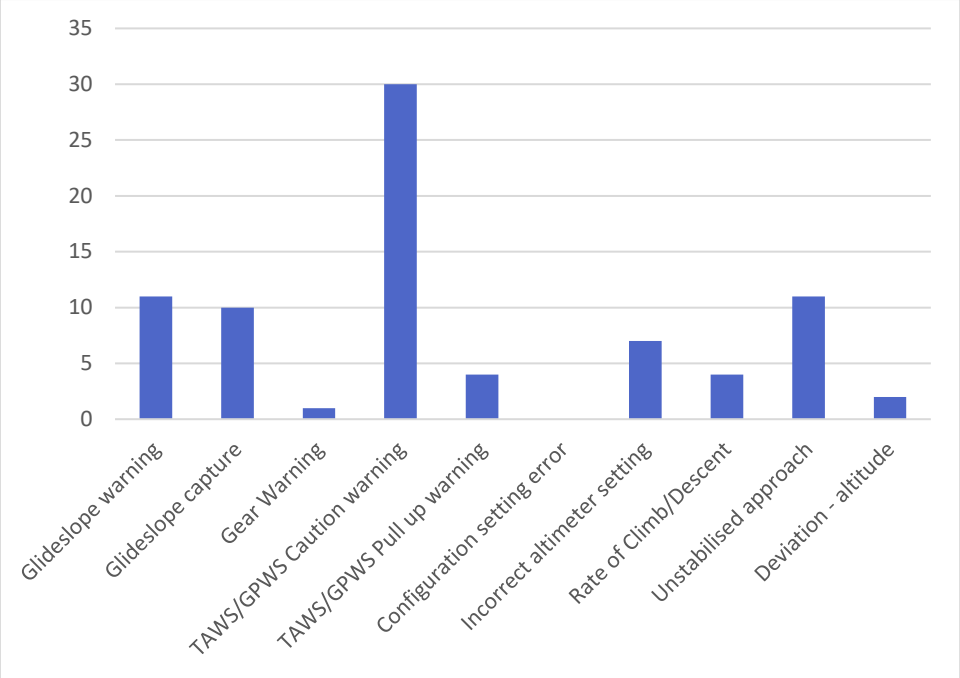
Controlled Flight Into or Toward Terrain (CFIT)

Controlled Flight into Terrain (CFIT) refers to instances where a fully functioning aircraft, under the pilot's control, is unintentionally flown into terrain, water, or an obstacle—often due to loss of situational awareness. This category only includes events occurring during the airborne phase of flight and covers scenarios that, while not resulting in an accident, could have had serious consequences—such as Ground Proximity Warning System (GPWS) alerts or altimeter setting errors.

In 2025, CFIT-related reports increased slightly compared to 2024. Nevertheless, no CFIT events were classified as accidents or serious incidents by the Safety Investigation Bureau during this period.

As illustrated in Graph 24, the most frequent event type was the 'TAWS/GPWS Caution' warning, which in many cases was associated with one of the other event types presented in the graph. Such warnings require crew awareness and appropriate response, including aircraft handling actions such as go-arounds and missed approaches. Additional contributing factors included incorrect altimeter settings, unstabilised approaches, and deviations in rate of climb or descent.

The high number of warning-related entries highlights the value of early detection systems in enabling crews to take corrective action before a hazard escalates. These findings reinforce the importance of continuous training, adherence to standard operating procedures, and robust safety defences to maintain CFIT risk at a controlled level.



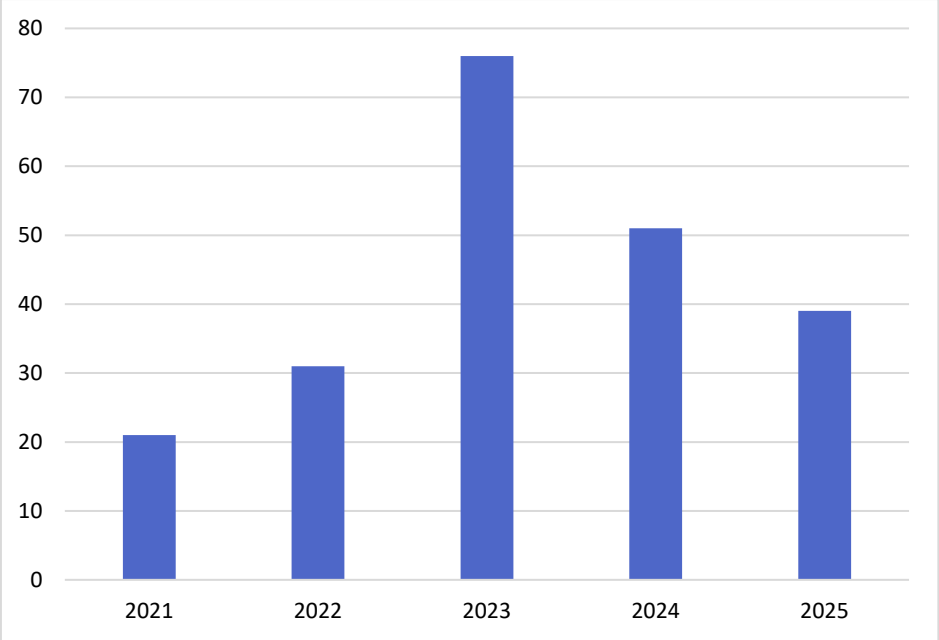
Graph 24 - CFIT category related events (2025)

Fire/Smoke (non-impact) (F-NI)

This category covers occurrences where fire, smoke, or unusual odours were reported on board the aircraft, either in flight or on the ground, excluding events caused by impact. Reports received in 2025 were typically related to air-conditioning issues, galley equipment, component malfunctions, or spurious fire warnings that were not confirmed upon inspection.

As shown in Graph 25, 2024 recorded a further decrease in F-NI-related reports. Despite this decline, the category remains a key area of concern due to the potentially high consequences involved. The most frequent reports involved fumes or odours in the cabin, often traced back to residual oils or component overheating.

No injuries or fatalities were reported within this category. The CAD continues to monitor such events closely and works with operators to ensure that appropriate maintenance practices and response procedures are in place, thereby contributing to overall safety assurance.



Graph 25 - Fire/Smoke (N-I) category events (2021-2025)

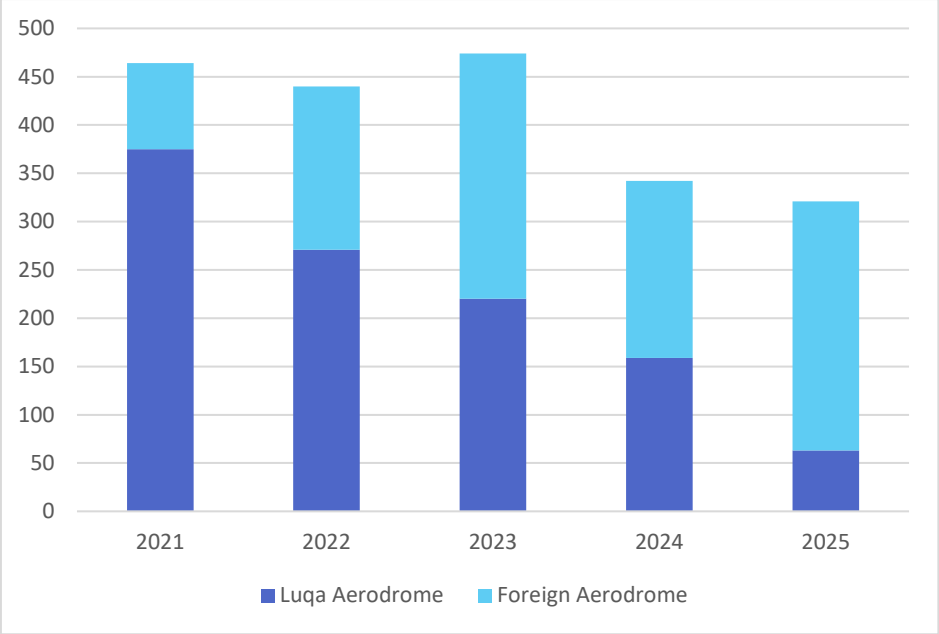
Ground Handling (RAMP)

This category includes occurrences that take place during, or as a result of, ground handling operations. The following analysis covers RAMP events in Malta, as well as those reported under this category by Maltese-registered operators at foreign aerodromes.

At present, ground handling agents in Malta report occurrences to the aerodrome operator and manage them as part of their SMS. The aerodrome operator, in turn, submits reports to the CAD in accordance with occurrence reporting obligations. Any significant concerns are subsequently addressed during periodic review meetings.

Graph 26 presents data related to reported RAMP category events. The CAD coordinates closely with the aerodrome operator, considering the severity of events and ensuring that appropriate mitigation measures are implemented. In parallel, the CAD actively encourages campaigns to strengthen the reporting culture and improve access to reporting channels for ground handling personnel.

Furthermore, the observed decline in reported RAMP-related events at Luqa aerodrome may also be influenced by the CAD's strategy to raise awareness of occurrences that are specifically reportable to the national database. This approach provides clearer guidance on reporting thresholds, while not limiting the obligation to report other events in accordance with the SMS requirements of the GHSP or the aerodrome operator.



Graph 26 - RAMP category events (2021-2025)

The trends identified in previous years remain the primary contributors to RAMP category events at Luqa aerodrome, however, the data indicates that improvements are being achieved in this area.

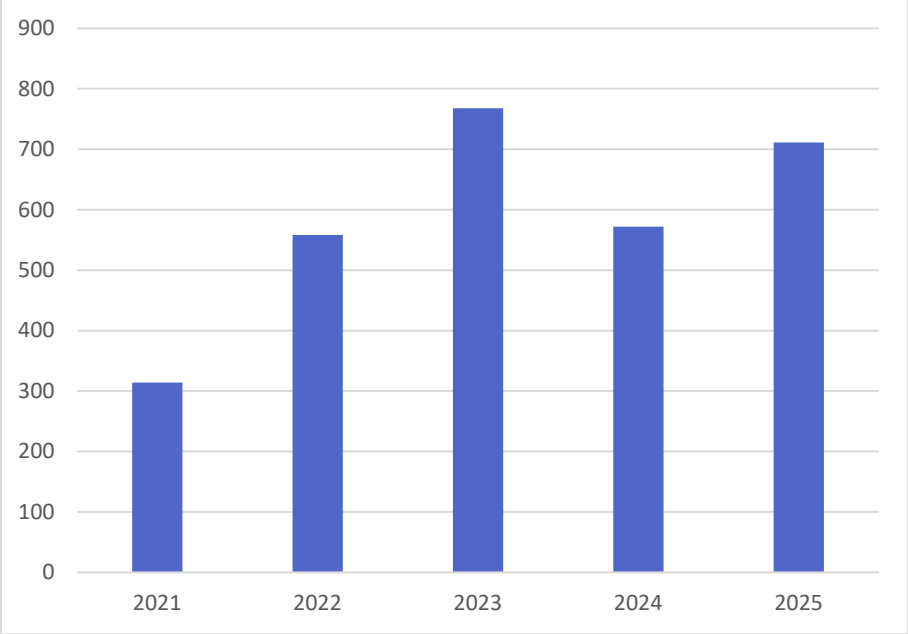
At international locations, key areas of concern include cargo loading, apron discipline, and turnaround and pre-flight preparation activities. These issues are being addressed through the SMS of the operators involved in such events.

Loss of Control-Inflight (LOC-I)

This category is quite vast and include occurrences where there was a loss of aircraft control, or deviation from intended flight path inflight. LOC-I remains one of the most significant contributors to fatal accidents worldwide. LOC-I can result from a range of interferences including engine failures, icing, or stalls. It is one of the most complex accident categories, involving numerous contributing factors that act individually or, more often, in combination. This category is also one of the highlights of the EPAS.

The data from 2021 to 2025, as illustrated in Graph 27, shows notable fluctuations in the recorded events. After reaching a peak in 2023, there was a decline in 2024, followed by a rise in 2025. However, the 2025 figures remain below the 2023 peak. This pattern reflects variability in the occurrence of these events, with 2023 representing the highest level recorded during the period under review.

The data suggests that unstabilised approaches and flight parameter exceedances remain key contributors within this category. Detailed analysis shows that approximately one third of reported events were associated with environmental and weather-related factors, including turbulence, tailwinds, and poor visibility. The most frequently reported factors were go-arounds, speed and flap exceedances, and handling deviations. Although no injuries, fatalities, or near-accidents were recorded, these trends highlight the continued importance of maintaining vigilance, particularly during critical phases of flight.

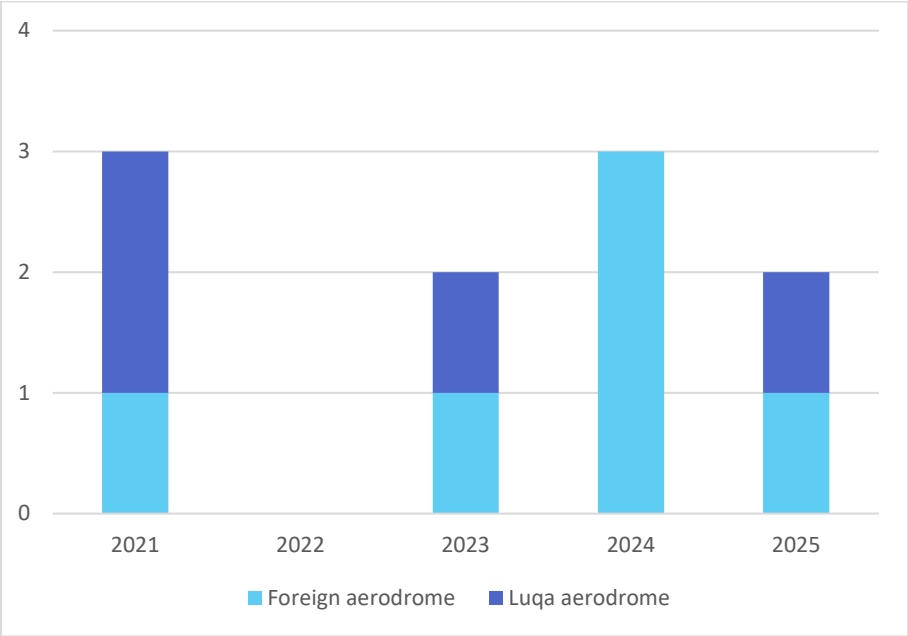


Graph 27 - LOC-I category events (2021-2025)

Runway Excursion (RE)

These events occur when an aircraft veers off or overruns the runway surface. Runway excursions can potentially result in fatalities and/or injuries to persons on board the aircraft or on the ground. Additionally, such events may cause significant damage to the aircraft, the airfield, and surrounding equipment or structures. Runway excursions can result from one or multiple factors, including landing after an unstable approach, excessive landing distance, and/or the condition of the runway surface.

Although the reported pre-cursor events may have led to a runway excursion, only two actual excursions occurred in 2025 as illustrated in Graph 28.

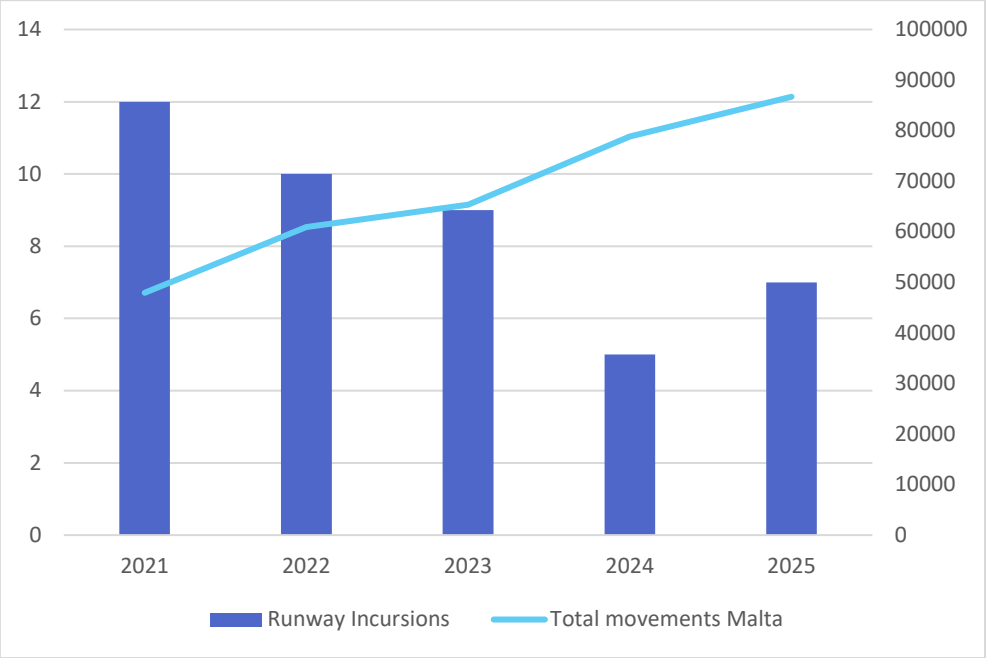


Graph 28 - RE category events at location (2021-2025)

Runway Incursion (RI)

These are incidents at an aerodrome involving the unauthorised presence of an aircraft, vehicle, or person within the protected area of a surface designated for aircraft take-off and landing.

In 2025, the CAD received 57 reports of RI events, seven of which occurred at Luqa Aerodrome. This represents a slight increase compared to the previous year, however, none of these events resulted in an accident. The limited number of local occurrences were primarily attributed to incorrect taxiway selection and aerodrome vehicle infringements. One event involved a communication error and the disregard of a red stop bar. Notably, another incident involved three passengers who escaped from an aircraft, crossed the runway, and breached the perimeter fence.



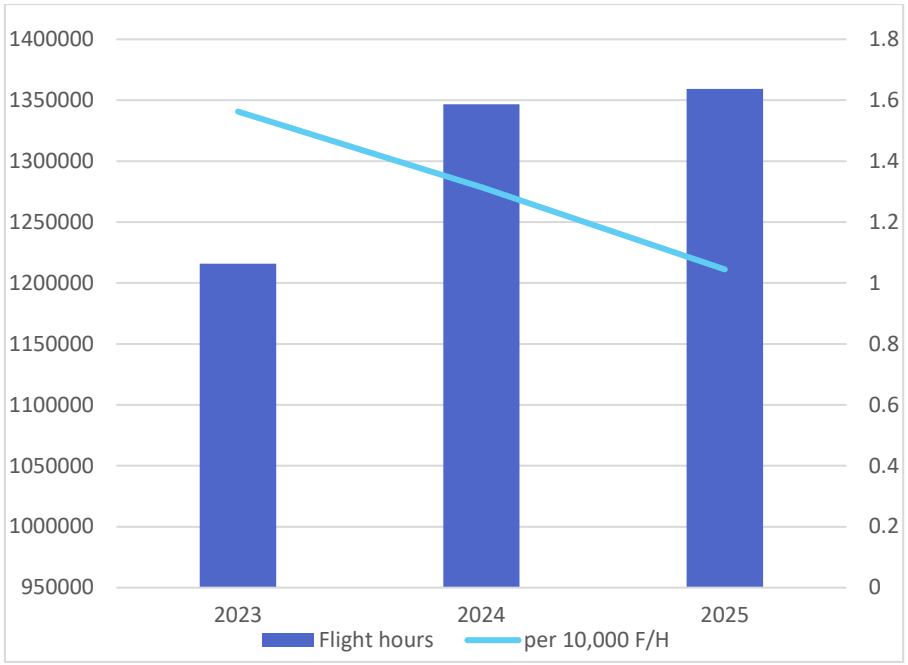
Graph 29 - RI category events at Luqa aerodrome vs Aircraft movements (2021-2025)

Numerically, RI events at Luqa remain relatively low. In 2025, the rate was 0.8 RI events per 10,000 aircraft movements, representing a slight increase compared to the previous years' ratio of 0.6 per 10,000 movements.

Fatigue

Fatigue is the general term used to define physical and/or mental exhaustion which extends beyond normal individual tiredness. This exhaustion may lead to reduced standards of safe operation with an increased possibility of error. The CAD monitors such reports and follows-up with the respective operator on reported occurrences. The submission of a fatigue report does not necessarily mean that each report constituted a breach of regulations or crew-time rest periods/rostering.

Graph 30 shows the rate of fatigue-related reports submitted to the National database associated to the amount of flight hours flown by Maltese aircraft operators.

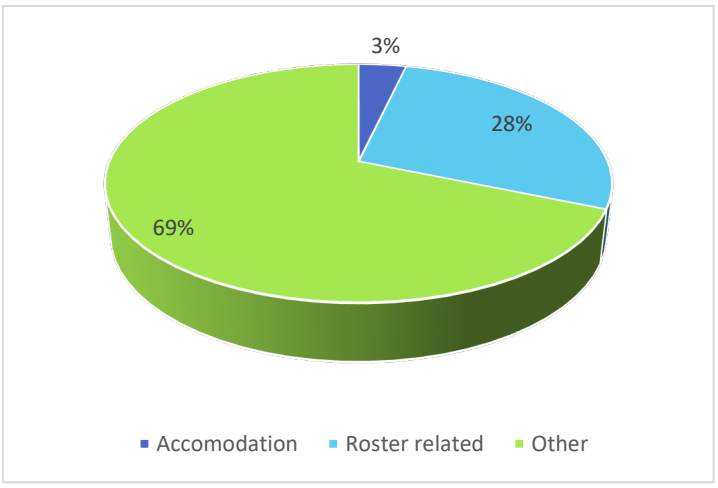


Graph 30 - Reported fatigue-related events per 10,000 flight hours (2023-2025)

On analysis of the reports, it has been noted that the increase in reporting was resultant to an increase from reports by cabin-crew members. When transposing the tally of fatigue reports against a relative value of flight hours, the reporting rate stands at 1.04 reports per 10,000 flight hours. Common contributing factors included technical issues, delays, adverse weather, operational challenges, and aerodrome ground handling.

Fatigue reporting remained prevalent, particularly during multi-leg flights across time zones, often associated with circadian rhythm disruption and limited rest during scheduled off-duty periods. Scheduling was also frequently cited by reporters as a contributing factor, however, this was not substantiated as a breach of current regulatory requirements. Amendments to rostering were considered and implemented where appropriate.

Fatigue and duty time compliance continue to be closely monitored by the CAD through ongoing oversight, including targeted checks on Flight Time Limitations (FTL). These activities confirmed compliance, with no safety concerns identified during audits.



Graph 31 - Fatigue reports and their reported causes (2025)

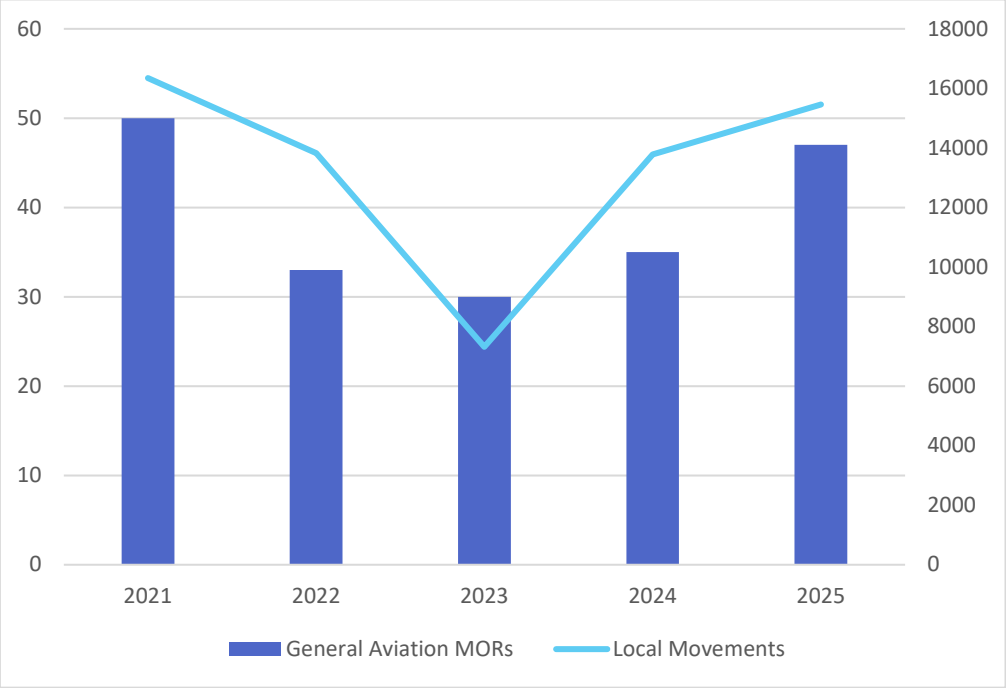
General Aviation

General Aviation (GA) aircraft in Malta operate exclusively from the certified aerodrome at Luqa. This environment presents additional challenges for the GA community and airspace management, particularly due to operations conducted within and near an international aerodrome. GA in Malta is regulated through a hybrid framework of national and regional legislation, with a primary focus on maintaining airworthiness standards, pilot licensing, and the promotion of high levels of safety.

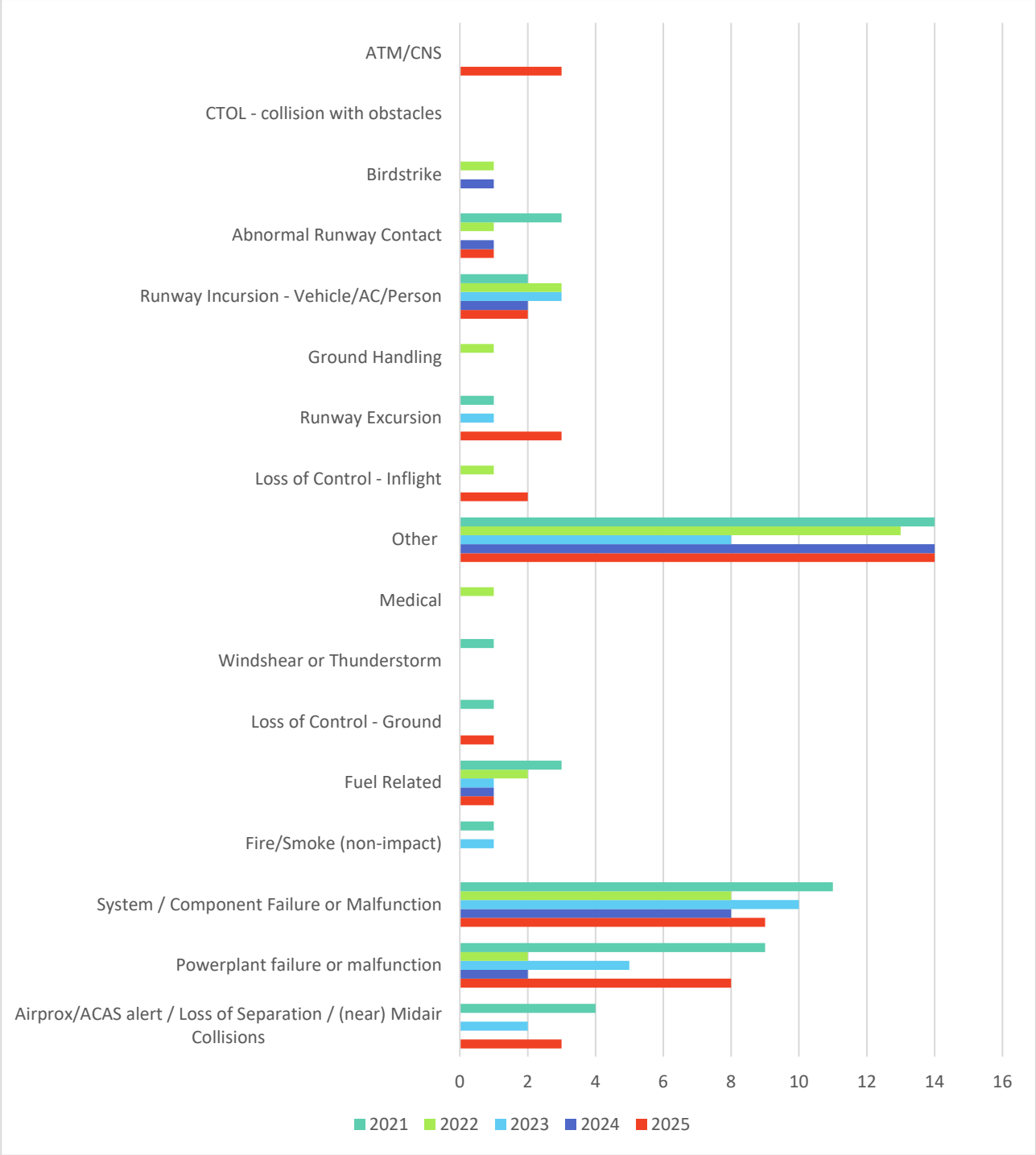
GA activity in Malta is illustrated in Graph 32 and indicates an increase in local movements compared to the previous year. This rise is largely attributed to the reopening of two runways, which had been closed for three months in the previous year and had restricted GA operations.

The rate of MORs for GA stands at 3 reports per 1,000 aircraft movements, reflecting a slight increase from the previous year. Nevertheless, the CAD continues to work closely with stakeholders to raise awareness of the importance of occurrence reporting within the GA community. Graph 33 presents GA occurrence categories in comparison with previous years.

Each report is assessed individually by the CAD, and any issues arising are addressed accordingly. As part of its ongoing safety promotion initiatives, the CAD has also held dedicated meetings with Approved Training Organisations (ATOs) and GA stakeholders to further strengthen the occurrence reporting culture.



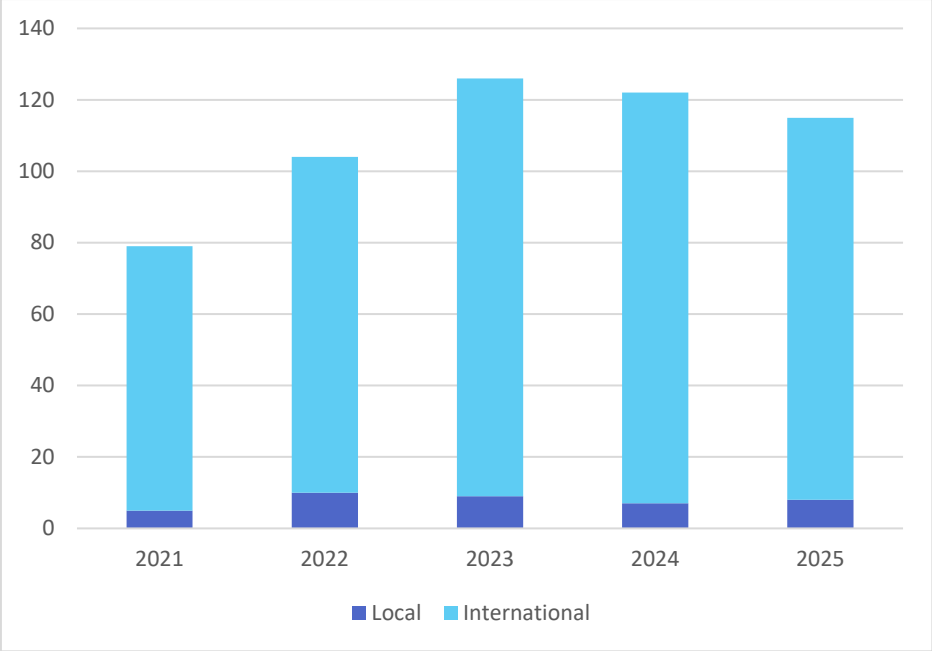
Graph 32 - General Aviation MORs vs Local movements (2021-2025)



Graph 33 - General Aviation Occurrence Categories (2021-2025)

Laser Attacks

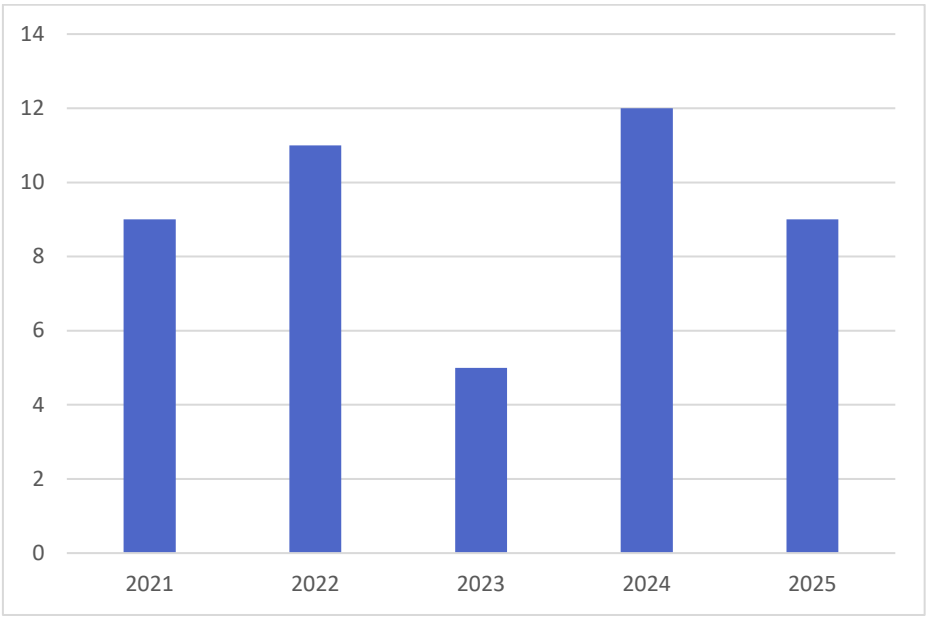
Laser attacks present a significant threat to flight crew, particularly during critical phases of flight such as take-off and approach/landing, where they may cause hazardous visual impairment and distraction. Data indicate that reported laser attack occurrences have stabilised over the period shown in Graph 34. In Malta, the overall trend demonstrates relative stability, with a gradual decline compared to previous years. No specific country or area of operation has been identified as a predominant source of these events.



Graph 34 - Laser Attack events (2021-2025)

Fireworks

Malta's traditions include firework displays as part of large-scale celebrations and local Patron Saint feasts. Considering the location of Luqa Aerodrome and the associated flight paths for aircraft during take-off and landing, such activities may pose a potential risk to aviation operations. Procedures are in place to ensure effective coordination between all stakeholders involved in these events. These procedures are continuously evaluated for effectiveness and, where necessary, enhanced based on the nature and scale of the activities.



Graph 35 - Firework related events (2021-2025)

Occurrence Report Events

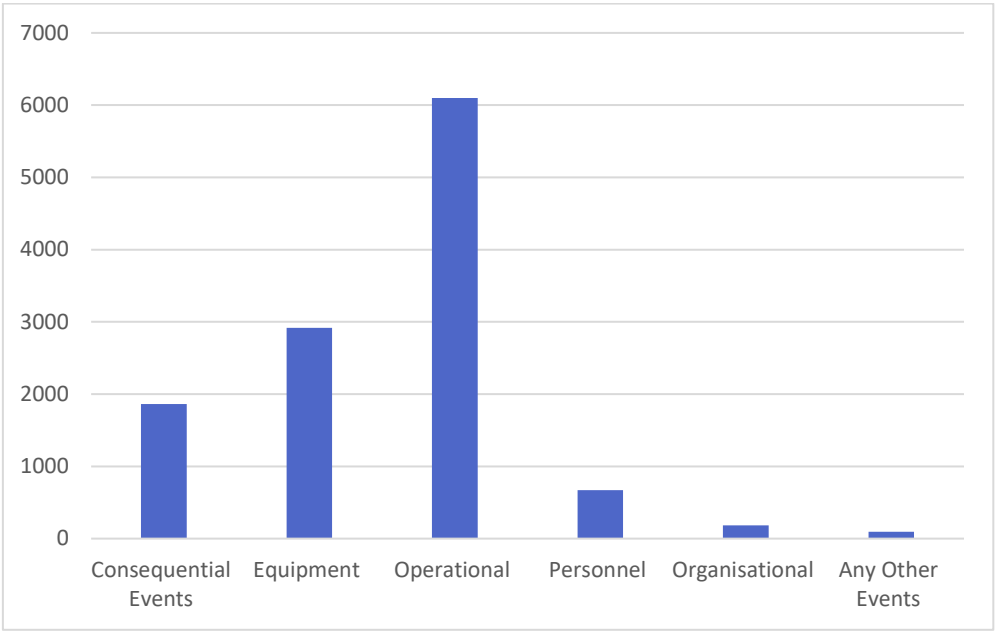
Event Type

Each MOR submitted to TM-CAD is attributed an event type which will help in occurrence reporting analysis in identifying pre-cursors and outcome of the cause. Regulation (EU) 376/2014 mandates that this field is populated to aid in data gathering.

The event-type list is based on the ECCAIRS ADREP taxonomy and is quite comprehensive, containing reference to multiple domains and services. The event type drop down below shows only the high-level of this comprehensive list:

Event Type drop-down menu headers

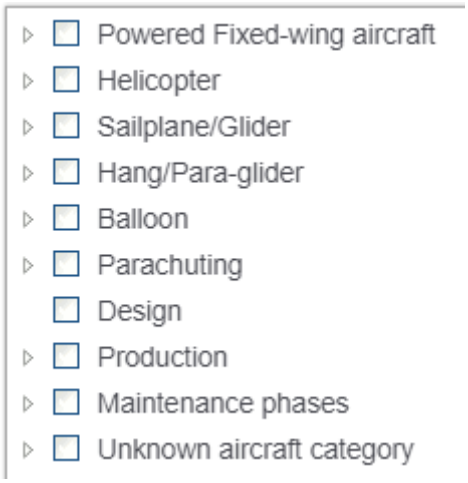
For simplicity purposes, ***Graph 36*** shows the six top-tier headers as per the event type drop-down selections (excluding the unknown category). It is important to note that one occurrence report can have multiple event types.



Graph 36 - Event Types (2025)

Event Phase

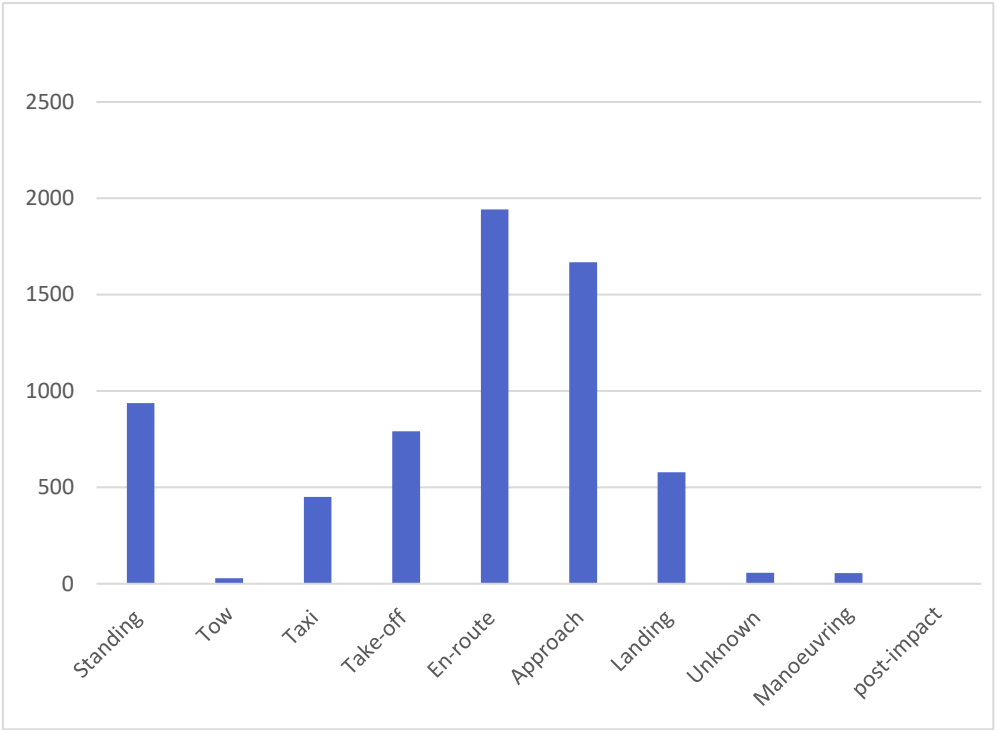
Each type of operation is associated with a distinct set of event phases, as presented in the event phase drop-down menu. The occurrence reports received by the CAD were primarily related to the 'Powered fixed-wing aircraft', 'Helicopter', and 'Maintenance' phases.



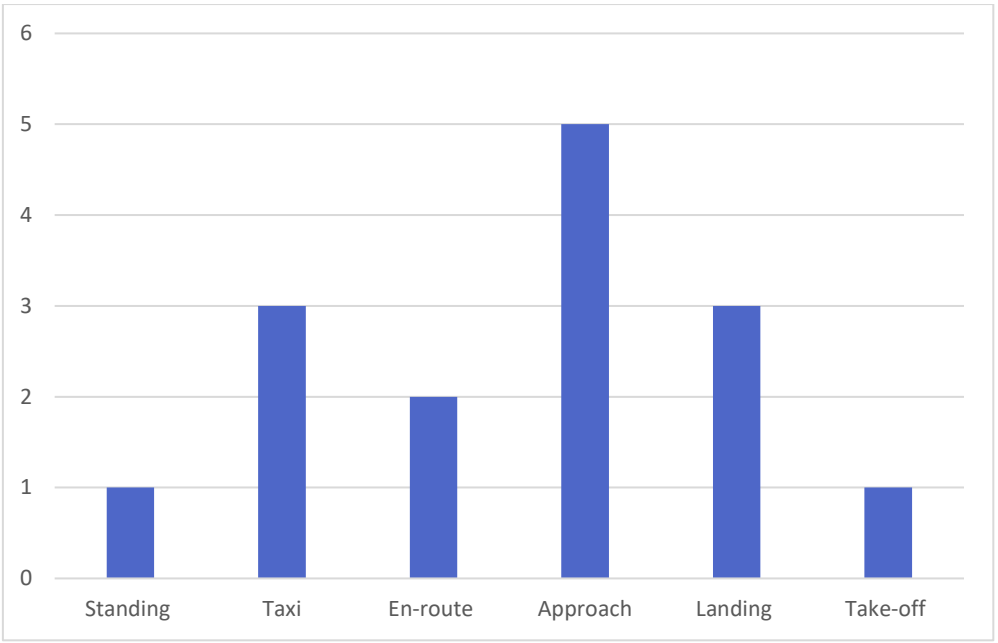
Event Phase drop-down menu headers

For the 'Powered Fixed-wing aircraft' and 'Helicopter' events in 2025, the phases are shown in Graph 37 and Graph 38 respectively.

The event phase tally reflected the increase in number of reports and follows similar patterns of previous years.

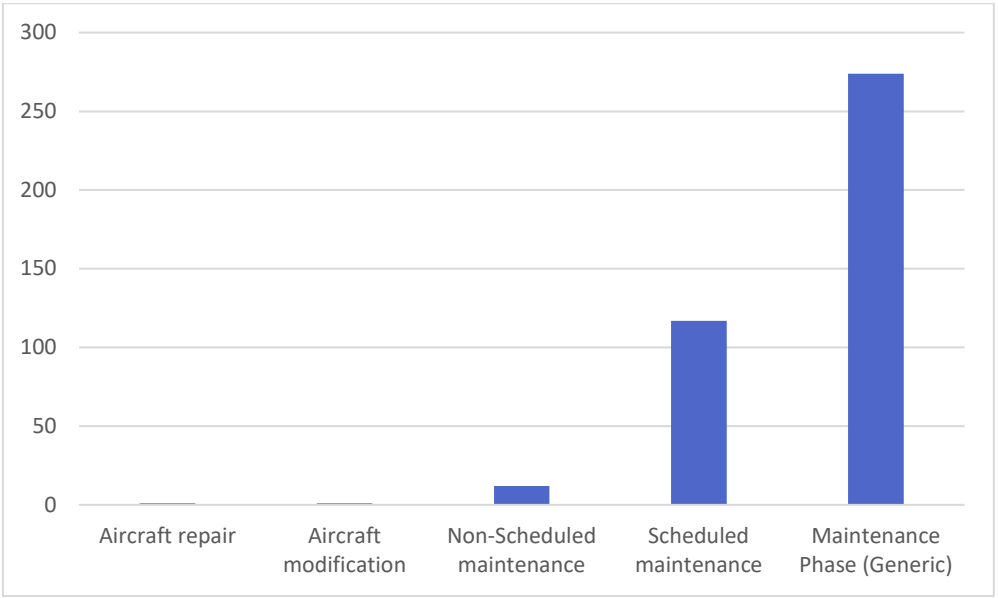


Graph 37- Event Phase: Powered fixed-wing aircraft (2025)



Graph 38 - Event Phase: Helicopter (2025)

'Maintenance phases' related events in 2025 are shown in Graph 39:

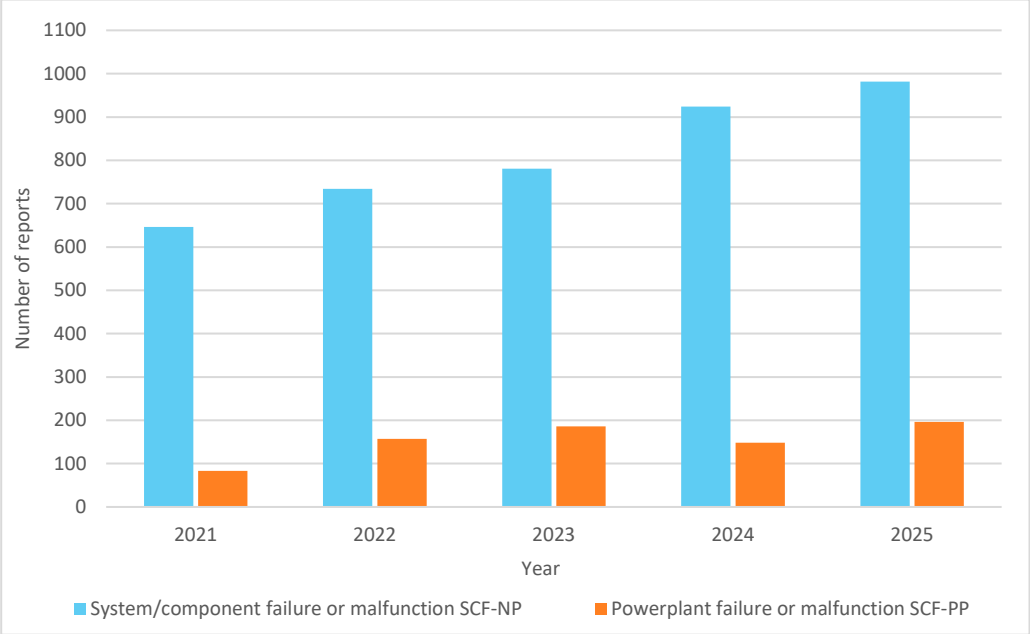


Graph 39 - Event Phase: Maintenance phases (2025)

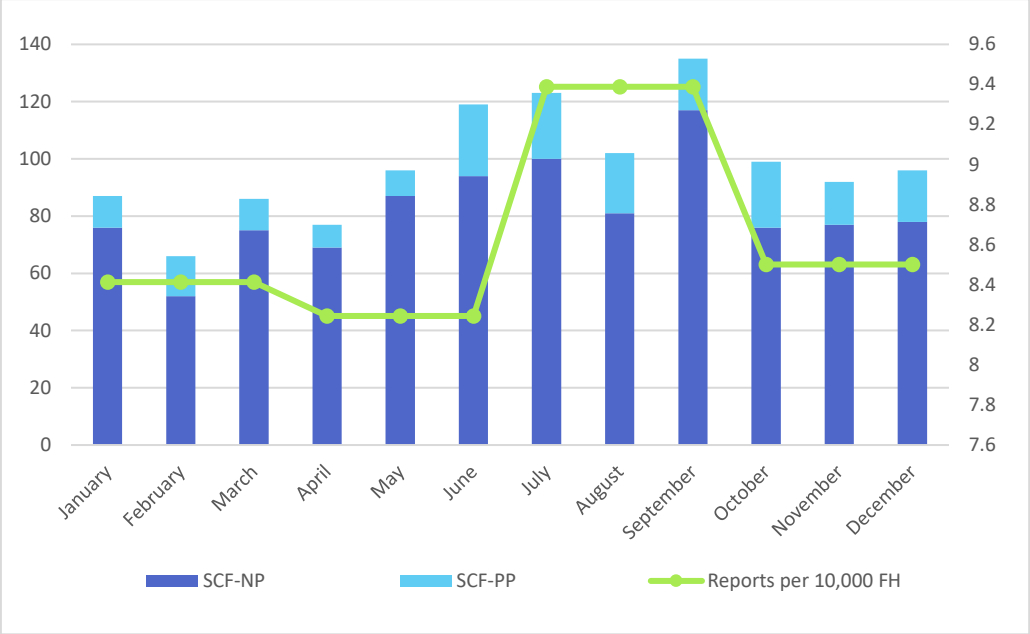
SCF-NP and SCF-PP

Recent monitoring of System Component Failure reports in aviation has increasingly focused on SCF-NP (Non-Powerplant) and SCF-PP (Powerplant) occurrences. These reports provide critical insight into the reliability and safety of aircraft systems, covering failures ranging from powerplant components, avionics, flight control systems, and other equipment. The collection and analysis of SCF data are essential for identifying emerging trends, assessing operational risks, and informing maintenance and safety interventions.

As illustrated in Graph 40, the volume of SCF reports has exhibited a gradual upward trend over recent years, reflecting both increased reporting awareness and sustained operational exposure. Graph 41 further analyses this data by examining the reporting rate per 10,000 flight hours, providing a standardised perspective on the occurrence of SCF events relative to operational activity.



Graph 40 - Number of SCF-PP and SCF-NP reports per Year (2021-2025)

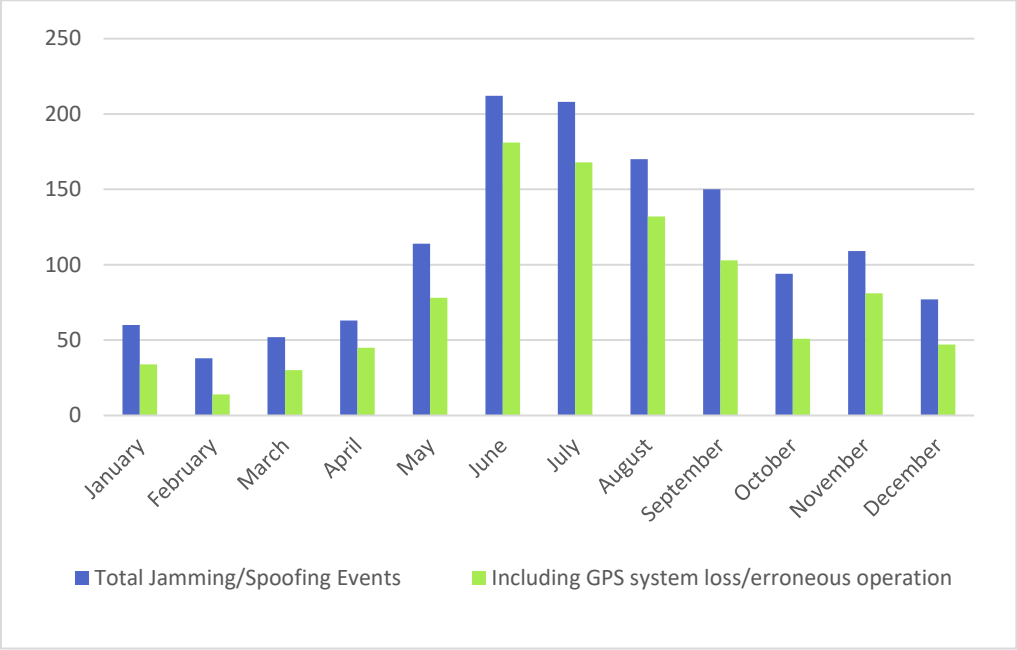


Graph 41 - Number of SCF-PP and -NP reports per Month 2025

Global Navigation Satellite System Outage and Alterations Leading to Navigation / Surveillance Degradation

With the rise in conflict and military activity, there has been a corresponding increase in the jamming and/or spoofing of Global Navigation Satellite Systems (GNSS). Such interference prevents receivers from locking onto satellite signals, primarily rendering the GNSS system ineffective or degraded for users within the affected area. Spoofing entails the transmission of counterfeit satellite signals designed to deceive GNSS receivers, leading them to calculate incorrect position, navigation, and timing data. Detecting jamming or spoofing, as well as identifying the type of interference experienced, is challenging, as there are generally no dedicated alerts for flight crews regarding such disruptions. Crews have reported the effects of GNSS jamming and/or spoofing during various phases of flight, in some instances resulting in re-routing or diversions to maintain safe operations and occasionally triggering false Terrain Awareness and Warning System (TAWS) alerts. Under current conditions, GNSS interference and its potential impacts cannot be reliably predicted.

In 2025, the CAD continued to monitor and analyse reports of GNSS-related interference, with particular focus on jamming and spoofing incidents. A total of 1,347 GNSS jamming/spoofing events were recorded, over 71% of which resulted in either loss of GPS functionality or erroneous position information. As shown in Graph 42, the monthly distribution of these events reveals a consistently high occurrence, peaking in June, with notably elevated frequencies also observed in July and August. These figures underscore both the persistent nature of the threat and the increasing operational impact on flight crews and aircraft systems.



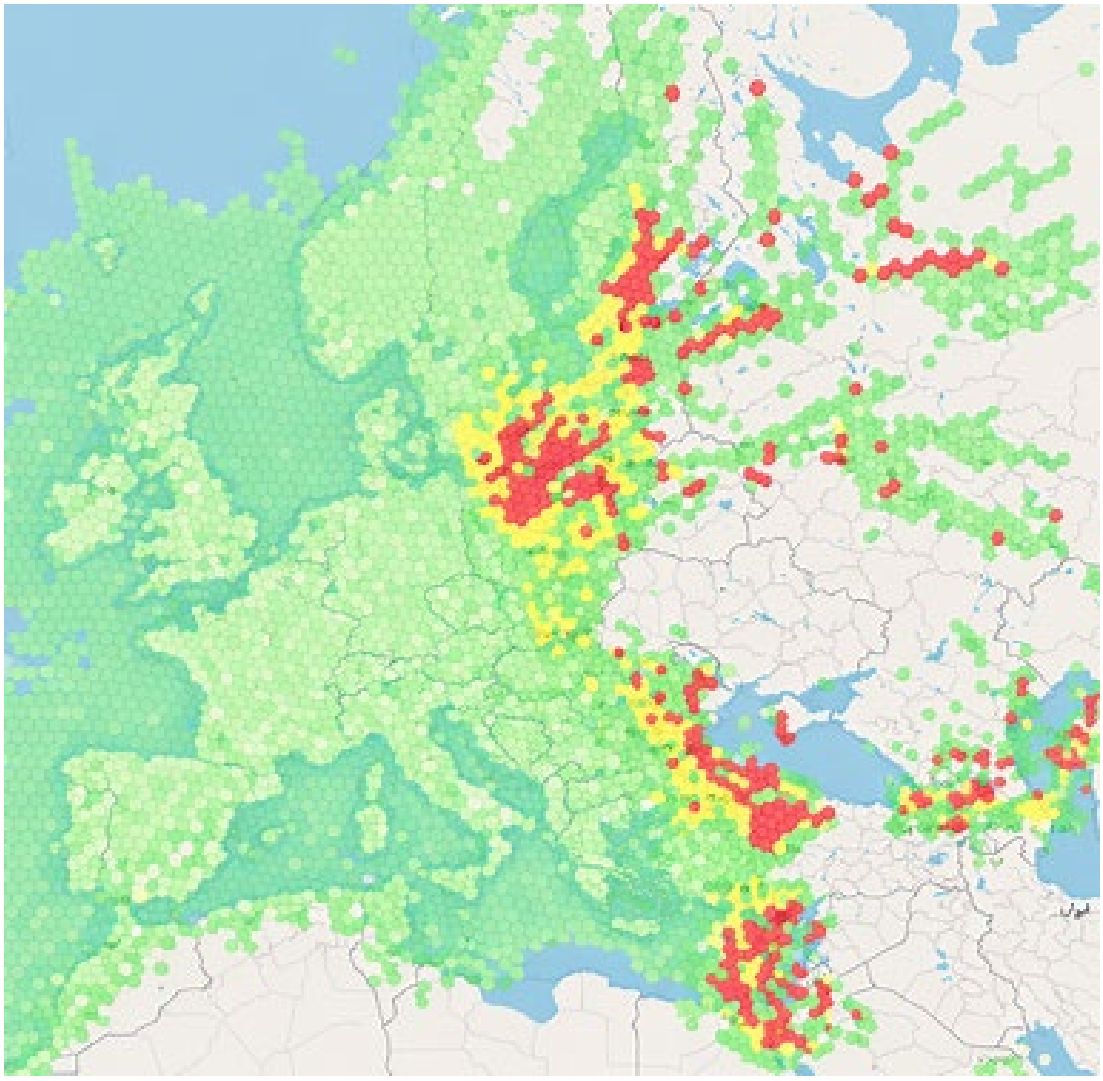
Graph 42 - Nature of experienced GNSS jamming and spoofing (2025)

Mapping of reported spoofing and jamming occurrences indicates a clear geographic clustering, particularly over the Eastern Mediterranean and the Middle East. This distribution is consistent with areas of heightened geopolitical instability and underscores the increasing complexity and scale of GNSS interference events. The observed pattern reinforces ongoing concerns within the aviation industry regarding the operational impact and evolving nature of such threats.

EASA and EUROCONTROL develop a joint action plan for aviation in the short to medium term: the European Aviation Action Plan for Ensuring Safe Operations during GNSS Interferences. This plan builds upon activities already initiated by both organisations, and considers proposals from other international bodies, notably the

ICAO and the IATA. The primary objective of the plan is to maintain the safety of operations while, wherever possible, avoiding adverse impacts on airspace capacity by containing the threat. Longer-term measures are expected to enhance the robustness and resilience of GNSS. A secondary objective is to achieve global harmonisation by promoting this European action plan through ICAO.

The CAD strongly recommends that all relevant stakeholders, as identified in the SIB, implement the proposed recommendations as mitigating measures. Certain recommendations for aircraft operators are differentiated between jamming and spoofing, reflecting the distinct characteristics of each threat. Operators must also remain vigilant to ensure that GPS interference, including jamming and spoofing, does not become normalised. Any such normalisation could lead to reduced crew sensitivity to these events, potentially affecting performance and increasing the likelihood of other residual risks materialising.



GPS Jamming areas of high exposure.
Source: Adapted from gpsjam.org

Conflict Zones

In view of the continuous instability across various regions of the globe, the CAD is continuously monitoring for any developments and adopting industry-wide, guidance and standards. For the latest information and recommendations, the active list of Conflict Zone Information Bulletin as published by the European Union Aviation Safety Agency (EASA) can be accessed at: https://www.easa.europa.eu/en/domains/air-operations/czibs

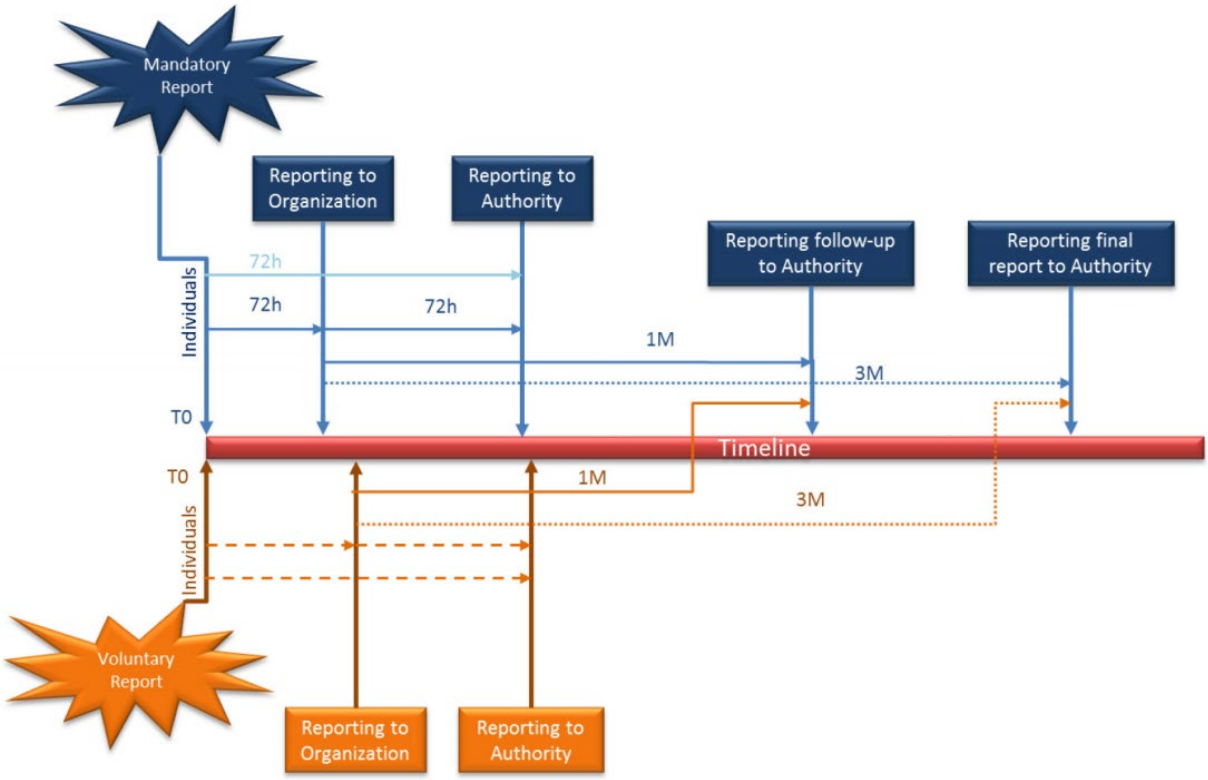
Occurrence Report Follow-up

The aim of safety occurrence reporting is to improve the safe operation of the aviation industry, thus making this mode of transport safer than yesterday. The CAD fosters the notion of Just Culture, and it is not the intention of the CAD to attribute blame to an event on an individual. In addition, based on the occurrence reports received, the CAD may conduct its own fact-finding and/or issue any relevant Safety Information/Notice. The timeline below provides information on the reporting flow of an Occurrence Report as implied by regulation (EU) 376/2014.

As part of the analysis, the CAD expects that organisations provide a follow-up report especially if the event has revealed an actual or potential aviation safety risk. The SCU manages this follow-up process in liaison with the respective inspector/inspecting officer from the other Units within the CAD. The goal is to identify operational hazards and system deficiencies which must be addressed by means of added mitigation measures and actions as necessary.

Hence, operators/organisations are expected to conduct an effective root-cause analysis and/or identification of causal factors and introduce any possible mitigation measures. This process must be an integral part of the organisations' SMS and approach towards improving aviation safety.

Additionally, the CAD may opt to issue notices to stakeholders, or apply enforcement measures if a potential safety concern, or trend, is detected.



Reporting flow implied by Regulation (EU) 376/2014
Source: Guidance Material - Regulation (EU) No 376/2014 - Version 1 (December 2015)

National and International Safety Investigations

The Maltese Bureau of Air Accident Investigation (BAAI) is the body responsible to carry out safety investigations in accordance with Subsidiary Legislation 499.22 of the Laws of Malta.

In 2025, the BAAI participated in nine safety investigations into serious incident events involving Maltese-registered aircraft, acting either as the lead investigation authority or as an accredited representative (ACCREP). A list of investigations initiated by the BAAI is available on the BAAI website: https://baai.gov.mt/accident-incident-report/

The following seven events, for which the BAAI is acting as the ACCREP, remain ongoing.

- Airbus A321 landed while another aircraft was taking off.
- Airbus A321 damaged by hail while enroute.
- Airbus A320 runway incursion.
- Boeing 737-800 experienced a birdstrike which resulted in an engine failure.
- Boeing 737-800 Fuel MAYDAY.
- Embraer EMB-550 experienced an uncommanded descent during cruise.
- DeHavilland Falcon 50 crash.

Safety Information and Advisory Notice (SIAN)

In 2025, the Civil Aviation Directorate issued one Safety Information and Advisory Notice (SIAN) to emphasise the importance of adhering to the ADREP Taxonomy and ensuring the accurate completion of all mandatory fields in occurrence reports. This initiative reinforces the commitment to improving data quality, consistency, and reliability in reporting, thereby supporting more effective safety analysis and risk mitigation across the aviation sector.

SIAN 01/25 – Accurate and consistent occurrence reporting remains a fundamental element in supporting effective safety analysis and the development of preventative strategies. In this context, all stakeholders are required to adhere to established reporting standards, including the correct application of the ADREP Taxonomy, which provides a structured set of definitions and descriptors for the collection and reporting of accident and incident data to the International Civil Aviation Organization. Emphasis shall be placed on the accurate completion of all mandatory reporting fields to ensure data reliability and usability. To further enhance the overall quality of occurrence data, stakeholders are encouraged to improve data entry practices, implement internal compliance monitoring where applicable, and support updates or enhancements to reporting software systems as necessary. Collectively, these measures aim to strengthen data integrity and enable more robust safety oversight and risk identification.

All published SIANs are available on the TM-CAD website under the ‘Safety Management’ section.

EU Ramp Inspection Programme

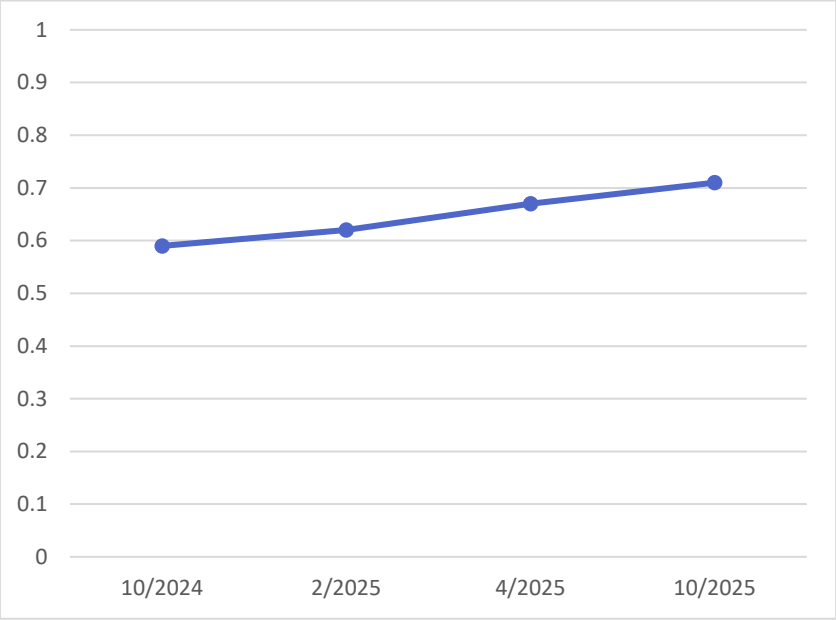
The EU Ramp Inspection Programme is a tool for the surveillance of foreign operators, which monitors safety compliance through ramp inspections on the aircraft. One of the pillars of the programme are SAFA ramp inspections (Safety Assessment of Foreign Aircraft). These involve all ramp inspections performed by any of the States participating in the programme, including Malta, taking ICAO standards as the regulatory reference.

The inspections are carried out by authorised personnel checking many items such as licenses, procedures, manuals, and compliance. Without hindering aircraft operations and schedules, random inspections are carried out. The absolute number of inspection findings represent an important outcome of the inspecting process which provides valuable information on the subject aircraft or its responsible operator. The severity of such findings is also assessed accordingly:

- Category 1 finding as a minor finding
- Category 2 finding as a significant finding
- Category 3 finding as a major finding

Depending on the nature of the findings corrective actions might need to be taken immediately otherwise the aircraft may be authorised to depart under operational restrictions. Following inspections and associated findings, a rating per country is assessed. This rating is calculated according to many criteria such as the number of operators, the number of aircraft inspected, number of inspections and the number of findings and their finding category.

Graph 43 illustrates, Malta's SAFA Ratings per quarter of this year. Over a 12-month period, Malta's SAFA ratio increased slightly. While this implies that Malta has diminished its SAFA rating, the rating still shows a good performance within the EU ramp inspection programme.



Graph 43 - SAFA Ratings per Quarter (2025)

SPAS Actions - Status

The actions presented below are extracted from the SPAS for Malta 2025. Each action is either specific to the reporting year or forms part of a phased implementation approach.
Actions designated as 'continuous' in the corresponding edition of the EPAS are not included in this status table, as they are ongoing and already implemented by the CAD.

Reference	Deliverable/Action	Target Date	Accomplished
SYS.MST.001	SSP effectively implemented.	2025	2025
SYS.MST.028	SPAS established and publicly available. Review annually.	2025	2025
SYS.MST.034	Monitor the effective implementation of operators' flight time specification schemes during routine oversight.	2025	On-going
SYS.MST.036	To develop proportionate learning objectives to strengthen the competency of PPL and LAPL pilots in meteorological information.	2025	Complete 2024
SYS.MST.037	Produce guidance for assessing the competence of regulatory staff, and guidance for assessing the competence of trainers.	2025	On-going
SYS.MST.040	Sustain a coordination mechanism between authorities/agencies as appropriate and in respect to regional local legislation.	2025	On-going
SYS.MST.043	Improvement of data quality in occurrence reporting	2026	On-going

Appendix I – Occurrence Class definitions

These definitions derive from Regulation (EU) No 996/2010 of the European Parliament and of the Council on the investigation and prevention of accidents and incidents in civil aviation as amended to the date of publication of this document.

'accident' means an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

(a) a person is fatally or seriously injured as a result of:
- being in the aircraft, or,
- direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or,
- direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

(b) the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes) or minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike, (including holes in the radome); or

(c) the aircraft is missing or is completely inaccessible.

'incident' means an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

'serious incident' means an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of an aircraft, which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down. A list of examples of serious incidents is set out in the Annex of Regulation (EU) 996/2010.

Transport Malta - Civil Aviation Directorate
Safety and Compliance Unit

w: https://www.transport.gov.mt/aviation
e: aviationsafety.tm@transport.gov.mt

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