



4 Rudolf Herzog  
Street  
P/Bag 12003  
Auspannplatz

Safety Promotion  
and Quality  
Department

[spq@ncaa.na](mailto:spq@ncaa.na)  
Ph. 083 235 2511 or  
083 235 2468



APRIL  
2025

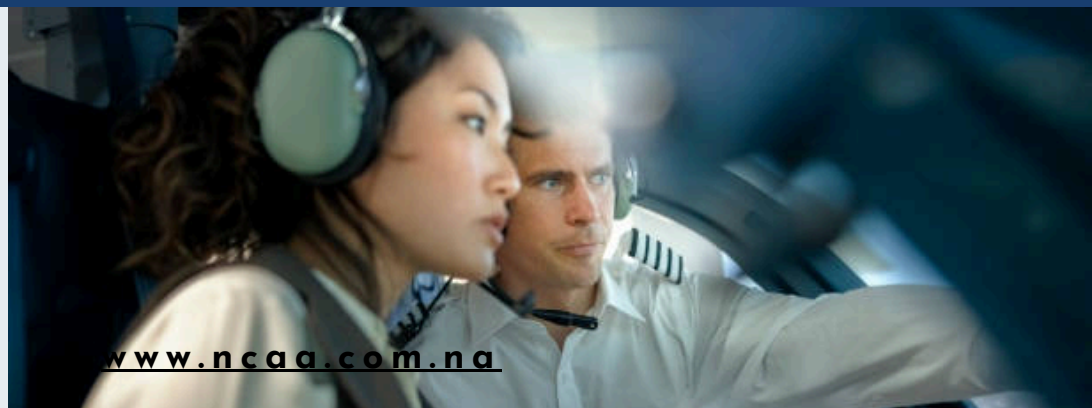
# Safety MATTERS

Providing the Namibian aviation industry and users with vital information on the latest aviation safety statistics and reports for the continuous improvement of safety systems:

Share Knowledge = Improve Safety



23/05/2025



[www.ncaa.com.na](http://www.ncaa.com.na)



This monthly publication will keep industry, NCAA, license holders, and the general public updated in terms of what has occurred in safety monthly within the industry. All reports are de-identified and no attempt should be made to identify the reporter in this or any other avenue unless specific authorisation is given.

Safety Statistics.....3

Safety Dashboard.....4

SPIs.....5

Quote of the Month.....5

From the ED’s Desk.....6

Timely Reporting.....7

Occurrences.....8

Feedback.....19

International Occurrences.....20

From our Interns.....21

Fuel Calibration.....22

Safety Workshops.....25

Quality Specialist.....26

Safety Updates.....27

Contents





Safety data trending is essential in aviation safety. Only with adequate data on proactive and reactive mechanisms, can we move towards prediction. By analysis of key events and processes through appropriate metrics we can grow and develop - moving closer to achieving our goal of maximum achievable safety levels and minimum undesirable events.

# Safety Statistics

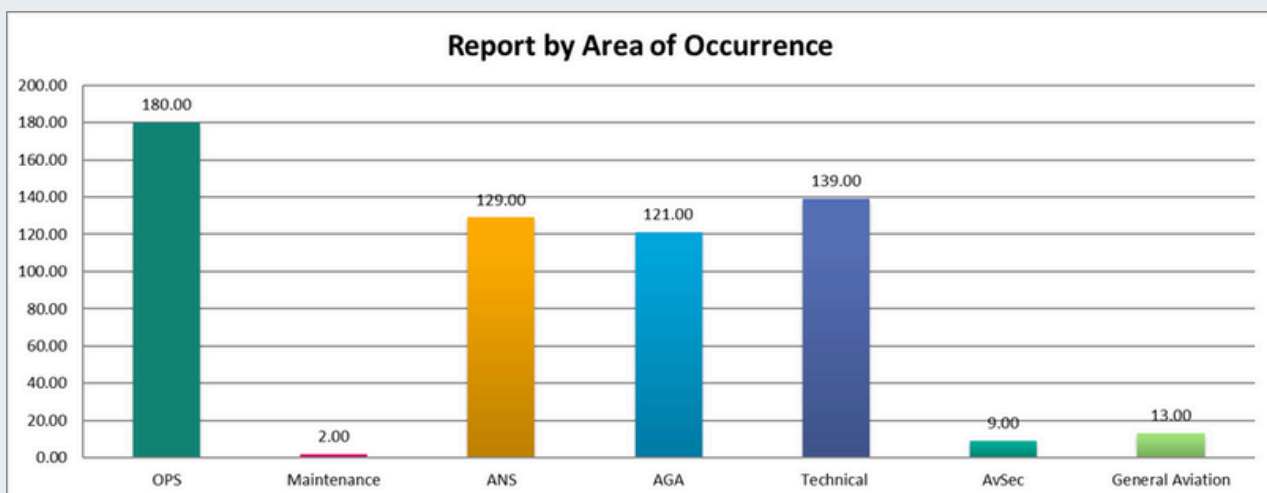
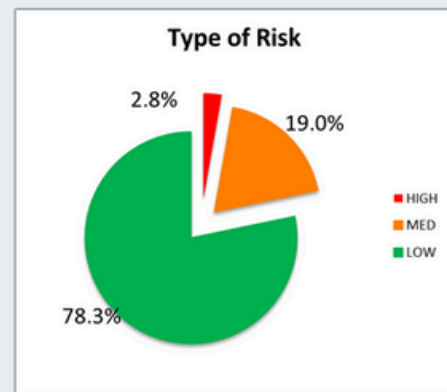
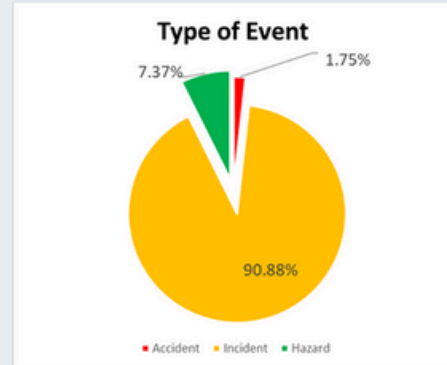
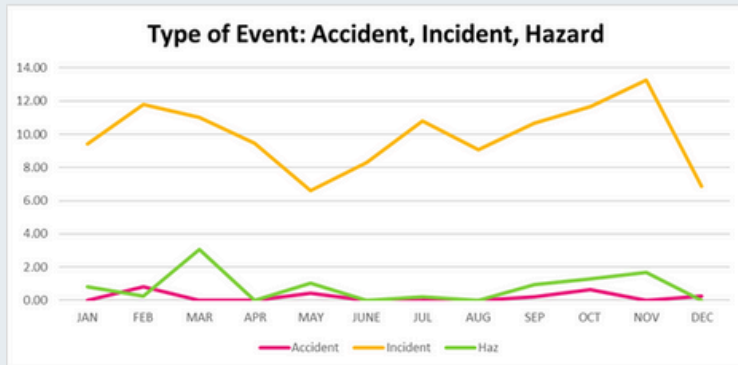
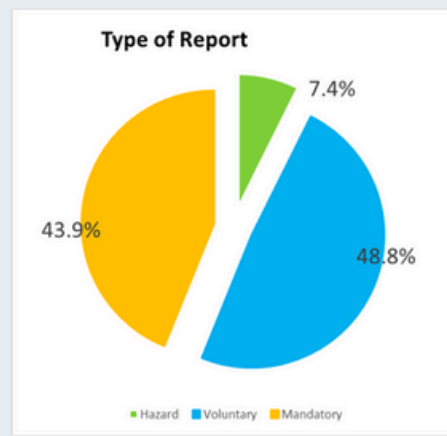
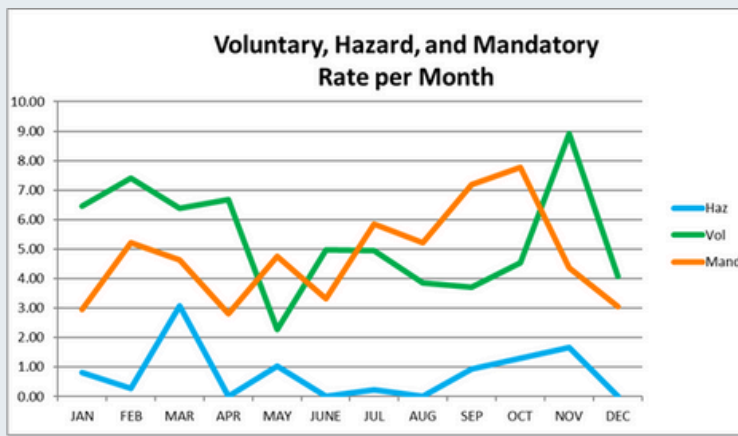
## April 2025

There were 45 occurrence reports in April, of significance was a lack of reporting on a number of ongoing events. There were 13 mandatory events and the remaining a positive 31 voluntary reports, including one hazard. There were 16 medium-risk events of which 12 were bird strikes, and two high-risk events, a loss of separation event, the remaining 30 were low-risk events. We currently have 7.4% of reports being hazards and 48.8% voluntary, totalling 56.2% non mandatory. There were no accidents in April however two aircraft sustained damage from a ground collision.



Detailed information is available in the occurrence section, and trends will be reviewed by the State Safety Programme Steering Committee (SSP Steercom) and the SSP Technical Working Group (TWG)

For more about classifications of risk see the definitions in Safety Bulletin 1-22. Graphs included in this document show 12 month rolling figures unless specified.



# Safety Dashboard

## Safety Performance Indicators 2025

Of note were a large number of bird strikes this month. Aerodrome and aircraft operators are reminded of this apparently seasonal increase. There were two loss of separation events and, we are happy to report, no other significant alerts.

Please note the figures are provided as a rolling total.

**SPIS**

|             | AirProx/LOS | CFIT  | Rwy Excurs. | Wildlife | LOCI  | Rwy Incurs. | Maint & Tech |
|-------------|-------------|-------|-------------|----------|-------|-------------|--------------|
| 12 mth avg  | 0.213       | 0.181 | 0.153       | 1.523    | 0.107 | 0.041       | 2.733        |
| JAN '25     | 0.000       | 0.255 | 0.000       | 1.533    | 0.000 | 0.000       | 1.277        |
| FEB '25     | 0.000       | 0.276 | 0.276       | 1.104    | 0.828 | 0.276       | 1.380        |
| MAR '25     | 0.000       | 0.000 | 0.000       | 1.505    | 0.000 | 0.000       | 5.767        |
| APR '24     | 0.455       | 0.000 | 0.000       | 2.956    | 0.000 | 0.000       | 1.819        |
| MAY '24     | 0.826       | 0.000 | 0.000       | 1.032    | 0.206 | 0.000       | 2.064        |
| JUN '24     | 0.000       | 0.000 | 0.000       | 2.372    | 0.000 | 0.000       | 1.661        |
| JUL '24     | 0.225       | 0.225 | 0.225       | 1.799    | 0.000 | 0.000       | 2.699        |
| AUG '24     | 0.000       | 0.000 | 0.226       | 1.131    | 0.000 | 0.000       | 3.394        |
| SEP '24     | 0.000       | 0.697 | 0.464       | 0.464    | 0.000 | 0.000       | 4.180        |
| OCT '24     | 0.216       | 0.216 | 0.431       | 0.431    | 0.000 | 0.216       | 4.098        |
| NOV '24     | 0.830       | 0.000 | 0.207       | 3.941    | 0.000 | 0.000       | 1.659        |
| DEC '24     | 0.000       | 0.509 | 0.000       | 0.000    | 0.254 | 0.000       | 2.799        |
| Target 2025 | 0.248       | 0.123 | 0.111       | 1.454    | 0.099 | 0.112       | 1.958        |
| Avg 2024    | 0.269       | 0.116 | 0.148       | 1.151    | 0.038 | 0.018       | 2.823        |
| SD 2024     | 0.295       | 0.201 | 0.167       | 1.043    | 0.086 | 0.060       | 1.318        |
| Alert 3     | 0.564       | 0.317 | 0.314       | 2.195    | 0.125 | 0.078       | 4.141        |
| Alert 2     | 0.860       | 0.518 | 0.481       | 3.238    | 0.211 | 0.137       | 5.459        |
| Alert 1     | 1.155       | 0.720 | 0.647       | 4.282    | 0.298 | 0.197       | 6.777        |




### IF IN DOUBT - REPORT!

Help us help you by reporting occurrence and hazards

The backbone of an effective SSP/SMS is a reporting culture and a just culture - instill this in your organisation!

[incidents@ncaa.na](mailto:incidents@ncaa.na)



## Safety Thought for the Month

*"Aviators who exercise good ADM avoid stacking risks against themselves to keep flights safe." Matt Totten Jnr*

*Stay Safe!*

**Reporting**

April saw some exciting activities for NCAA., starting out with our successful scoop of the AWA awards against some fierce competition. Thank you to all of you who voted, and for making us who we are. Together we will achieve more.

The first of our planned safety workshops, namely SPIs, was completed and well attended. The workshop was fully booked, and the reports received indicate it was a success, thanks to all those who participated to make it a truly interactive event. The second workshop is also fully booked, however, there is a second screening in September. Please do forward your names as soon as possible to [spg@ncaa.na](mailto:spg@ncaa.na) for the remaining four events to avoid missing out!

Easter weekend, traditionally a time for higher incident rates due to increased tourism travel, was fortunately rather uneventful. Compared to last year there were approximately 50% less significant reports over the holiday weekend, a positive sign of our evolving SSP.

We are moving forward with leaps and bounds in our QMS, with Hellen Vaendwanawa joining the SSPQ team in April as a Quality Specialist (see more about Hellen on page 26) and the bidding process underway for an implementation team.

The Part 140 CARTAP was concluded successfully and more CARTAPs and working groups are underway for regulatory updates. If you wish to be a part of this process, get in touch with the relevant regulatory department responsible for the regulation or with your assigned inspector(s).

In April we were recognised by AFCAC and ICAO as one of only three African nations to near fully comply with the reporting requirements of ICAO Doc 9060, thanks to the hard work in setting up the process by our data analyst Mr. Simon Valombola, and also a big thanks for the assistance of our colleagues at NAC, FlyNamibia, and the ANSP. Again, your support makes our job so much easier.

Keep safe and keep reporting,

*Yours in safety, Ms Toska Sem, Executive Director*

# TIMELY REPORTING



A recent frequency bleed event (see page 11 and 19) brought home how important it is to both report, and report in a timely manner. In the event in question, only one report was received, and the report was incomplete. It mentioned the event but failed to describe the nature and extent of the situation. As a result, the event received less attention that it would have had the report been complete. Further only one report was received on the ongoing event leading those managing reports to believe it was an isolated event. A second more complete report was received, however it was sent to the authorities approximately two weeks after the event occurred, by which time the resolution had been achieved.

Never assume that someone else has reported and always report the problem clearly and concisely, detailing the famous what, where, when, who, why, and how, as far as possible. Further try to report as soon as possible after the event, and those managing reports for a service provider, please take note. forwarding reports in a timely way to those who have access to address the issues is also essential.



While emailing a full report form can be cumbersome, if you are not sure if the report has been received and addressed or not, either just send an email or even simply post on the Namibian Aviation Safety WhatsApp group. Had this been done an important safety issue in this case would have been resolved much quicker.

Remember for incident and hazard reporting email to both [incidents@ncaa.na](mailto:incidents@ncaa.na) and [daaii@mwt.gov.na](mailto:daaii@mwt.gov.na), or for either voluntary or anonymous reports, follow the [Confidential Reporting Link](#).

# SAFETY OCCURRENCES

APRIL 2025



## TECHNICAL FAULTS (MANDATORY, **LOW RISK**, AIR/OPS)

There were 8 maintenance events this month. Of note, three flat tyres, however it is not considered sufficient to determine correlation.

| No. | Fault                          | Type    |
|-----|--------------------------------|---------|
| 1   | Fumes in cockpit               | Jet     |
| 1   | Gear fault                     | Piston  |
| 1   | Electrical failure             | Piston  |
| 1   | Engine fault (turbine relight) | Turbine |
| 3   | Burst/flat tyre                | Piston  |
| 1   | Unspecified                    | Piston  |

AMO personnel are again reminded of the critical importance of the elements in NAMCATS Part 140 Appendix A, as identification of trends that an individual AMO may not pick up and provides closure to the trends. AMOs, ATOs, AOCs, always submit the closure report from the AMO when there is a technical event, either via the PRAM or directly from the AMO.

# SAFETY OCCURRENCES

APRIL 2025



## WILDLIFE STRIKES (VOLUNTARY, **MEDIUM RISK**, AGA)

There were thirteen reported bird strikes and one wildlife event. As can be seen by the annual heat chart, the rainy season tends to bring more wildlife about, airports to take note with respect to WMPs.

| Wildlife | Events and near misses |         |              |
|----------|------------------------|---------|--------------|
| No.      | AD                     | Phase   | Details      |
| 3        | FYWH                   | Landing | Bird unknown |
| 2        | FYWH                   | Takeoff | Bird unknown |
| 5        | FYWE                   | Landing | Lapwing      |
| 2        | FYWE                   | Takeoff | Bird unknown |
| 1        | FYMO                   | Landing | Bird unknown |
| 1        | FYWA                   | Landing | Springbok    |

The below table shows rates per 1000 movements.

| YEAR | JAN   | FEB   | MAR   | APR   | MAY   | JUNE  | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | TOTAL |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2025 | 1.533 | 1.104 | 1.505 | 2.956 |       |       |       |       |       |       |       |       | 9     |
| 2024 | 2.042 | 3.941 | 0.000 | 1.615 | 1.106 | 0.599 | 1.799 | 1.131 | 0.464 | 0.431 | 3.941 | 0.000 | 67    |
| 2023 | 1.346 | 0.823 | 1.398 | 0.696 | 0.623 | 0.966 | 0.471 | 0.438 | 0.525 | 1.192 | 1.116 | 0.500 | 42    |
| 2022 | 0.846 | 0.739 | 1.126 | 1.272 | 1.308 | 2.350 | 1.877 | 0.219 | 0.250 | 0.679 | 0.684 | 1.925 | 50    |
| 2021 | 2.864 | 7.380 | 8.123 | 2.052 | 3.745 | 4.223 | 0.000 | 2.778 | 0.000 | 1.855 | 0.835 | 0.000 | 74    |

# SAFETY OCCURRENCES

APRIL 2025



## ATS / MET RELATED EVENTS (MANDATORY, **LOW RISK**, ANSSO)

The following Air Traffic Services and Meteorological events occurred.

| No. | Fault                              | Area  |
|-----|------------------------------------|-------|
| 1   | Radar display unserviceable        | FYWE  |
| 1   | Fatigue report                     | ACC   |
| 3   | Unmanned landings, ATC not on duty | FYLZ  |
| 1   | Full communications failure        | ACC   |
| 1   | Loud static on frequency           | FYWE  |
| 1   | Frequency blocked                  | EMERG |

The sudden and complete failure of communications at the area centre is discussed on page 12. A further reminder that technology can fail at any time and both pilot and ATC loss of communications procedures must allow for contingencies. The failure of 121.5 frequency is discussed on page 11 noting the importance of not assuming someone else reported.

# SAFETY OCCURRENCES

APRIL 2025

## RADIO BREAKING THROUGH (MANDATORY, **LOW RISK**, ANSSO)

Music was reported a second time, breaking through on 121.5 in this instance it was reported as exteme, continuous, and making the frequency unusable.

*Of note in this incident, is that the situation was continuous, however the first report (March Bulletin) was incomplete, and the second report was received two weeks after the event. Had the issue been fully reported in a timely manner the situation would have received more attention and been resolved quicker. The unavailability of 121.5 could have had serious consequences, however the action to address the fault was delayed because of a lack of reports. This situation demonstrates without a doubt how essential it is to adhere to the motto, "If in doubt report".*

*If you are really not sure and want to make an enquiry, do a shout out on the WhatsApp safety group, which NCAA monitors as an unofficial communication channel, we will advise you if the problem has been reported.*

## FATIGUE / LOS (MANDATORY, **MEDIUM RISK**, ANSSO)

An ATC on night shift failed to pass estimates and change the flight level for semi-circular compliance with an overflight. The controller cited fatigue as the primary contributing factors.

*The ATC is commended for self reporting.*

*NCAA is addressing the staffing levels at the ANSP as a matter of urgency. Bursaries are to be advertised soon and upgrade training is in progress.*

# SAFETY OCCURRENCES

APRIL 2025

## FREQUENCY STATIC (MANDATORY, MEDIUM RISK, ANSSO)

There was a report of loud static on 118.7 at certain locations at FYWE.

*Of note again, similar to the event on 121.5, is a second report was received in May, this problem was potentially ongoing but insufficient reporting occurred. Currently CNS is addressing the issue but without data it is difficult to trace.*

## LOSS OF COMMUNICATIONS (MANDATORY, MEDIUM RISK, ANSSO)

An event of a total loss of communications and surveillance equipment occurred at the area centre, affecting APP, AREA, and FIS services. As a result, and fortunately because there was a qualified controller available on duty, all traffic was handled by FYWH TWR resulting in complete frequency congestion. A NOTAM was issued and traffic was temporarily held and/or diverted where required until the situation could be resolved.

*The fault was attributed to a NAMPOWER service interruption which was completely outside control of the ANSP. The situation was resolved in approximately 90 minutes. Despite the delays and diversions, there was no safety consequences reported. ATS is commended for their prompt and effective handling of a catastrophic failure.*

## IBS DOWNTIME (VOLUNTARY, LOW RISK, ANSSO)

There was a report of frequent downtime on the IBS resulting in congestion on phone and email service for filing flight plans.

*Operators and pilots are advised to please report when services are unavailable for fault finding.*

# SAFETY OCCURRENCES

APRIL 2025



## AERODROME RELATED EVENTS (MANDATORY, **LOW RISK**, AGA)

The following aerodrome related events occurred:

| No. | Fault                          | Area |
|-----|--------------------------------|------|
| 1   | Marshalling complaint          | FYWE |
| 1   | Ground collision               | FYWE |
| 1   | Ant hill mound close to runway | FYWH |

The marshalling is being addressed by NAC, a CAP is expected soon.



# SAFETY OCCURRENCES

APRIL 2025



## GO AROUNDS AND DIVERSION EVENTS (VOLUNTARY, **LOW RISK**, OPS/ANSSO)

The following table shows go-around and diversion events.

| No. | Details                                  | Intended   |
|-----|------------------------------------------|------------|
| 1   | Go around due to tailwind                | FYWH, FYWE |
| 2   | Go arounds due to birds                  | FYWE       |
| 1   | Go around due to maintenance vehicle     | FYWH       |
| 2   | Diversions due to weather                | FYWE       |
| 2   | Diversions due to communications failure | FYWH       |
| 1   | Diversion due to technical               | FYWE       |
| 2   | Diversions for operations                | FYML, FYWH |

It is important to realise that a go around is mitigation for a hazard (e.g. unstable approach, runway incursions) but also brings about hazards in itself (LOC-I, CFIT etc.). Extreme vigilance is needed, and in this respect, we should *always, always* be go around orientated so that when the unexpected happens we are already prepared.

# SAFETY OCCURRENCES

APRIL 2025

## TAIL COLLISION (MANDATORY, **LOW RISK**, AGA)

While following the directions of the Marshaller, the horizontal stabiliser of a taxiing aircraft collided with the tail of a stationary aircraft.

*This is the second ground collision in as many months. The operator has been requested to address the situation as a matter of urgency.*

## LOW FLYING OVER RHINO (MANDATORY, **HIGH RISK**, OPS)

A report of two microlights flying low over game was received from the lodge owner. The owner reported that the danger of the rhino charging when disturbed was significant.

*The pilot maintained that they were at 500ft AGL and it is difficult to determine otherwise, however pilots are reminded of the importance of the current Part 91 regulation indicating low level flying is only permissible if it can be done without hazard or nuisance to persons or property on the ground.*



# SAFETY OCCURRENCES

APRIL 2025

## LOSS OF SEPARATION - UNMANNED (MANDATORY, **HIGH RISK**, OPS)

An aircraft on a Sossusvlei scenic flight encountered a foreign registered aircraft in unmanned airspace, first sighting the aircraft head on at approximately 100m away. The aircraft took immediate avoiding action narrowly escaping catastrophic consequences. The foreign registered aircraft did not make any radio calls until after repeated efforts to contact them were made.

*The Namib Naukluft SRA is a hotspot for risk of unmanned loss of separation events. It is crucial for effective and regular radio communication and constant lookout for traffic, see and avoid / hear and avoid. The matter is also being addressed with SACAA to create more awareness for foreign pilots.*



# SAFETY OCCURRENCES

APRIL 2025



## LASER POINTER (VOLUNTARY, **LOW RISK**, AVSEC)

A laser pointer was observed shining towards an aircraft from the Windhoek Northern Suburbs.

## ILLEGAL DRONE ACTIVITY (MANDATORY, **LOW RISK**, OPS)

Illegal drone activity was observed in Arandis and Swakopmund in close proximity to the airport with footage online.

*OPS is Investigating.*

## COMMUNICATION BREAKDOWN (MANDATORY, **LOW RISK**, OPS)

An aircraft departed to the GFA, and, after being handed over to 120.5 (APP) and 124.4 (GFA), was observed orbiting on the extended centerline of 01/19. The pilot was contacted on 124.4 and they advised they could not get hold of approach.

*When changing frequencies always have the last frequency still tuned or available to change back if you don't manage to establish COMs.*

# SAFETY OCCURRENCES

APRIL 2025

## FAILURE TO COMPLY WITH INSTRUCTIONS (MANDATORY, MEDIUM RISK, PEL)

A student pilot failed to comply with ATC instructions to maintain runway heading after takeoff resulting in a conflict with joining traffic which was then re-routed.

*With flight training mistakes are inevitable, fortunately the controller had both traffic in sight, the student received some additional training and was back on solo missions again. However routine patterns can catch all of us out, we normally always turn at 500ft in the circuit and instruction to the contrary can be accidentally omitted. If you receive a clearance, always write it down on your knee pad or clipboard to reinforce the action required, especially if it is outside the ordinary, and for two crew (training, private, or commercial) clearances always need to be confirmed by both pilots.*



## IBS DATABASE AND ICAO INDICATORS (VOLUNTARY, HAZARD, AGA)

A pilot filing a flight plan noted that there are some discrepancies between the location indicators and the IBS and the coordinates of the location indicators are not published. This could lead to confusion from ATC/FIS as to where the aircraft is routing to or pilots routing to the wrong location as per the GPS database.

*AGA is looking into the matter*

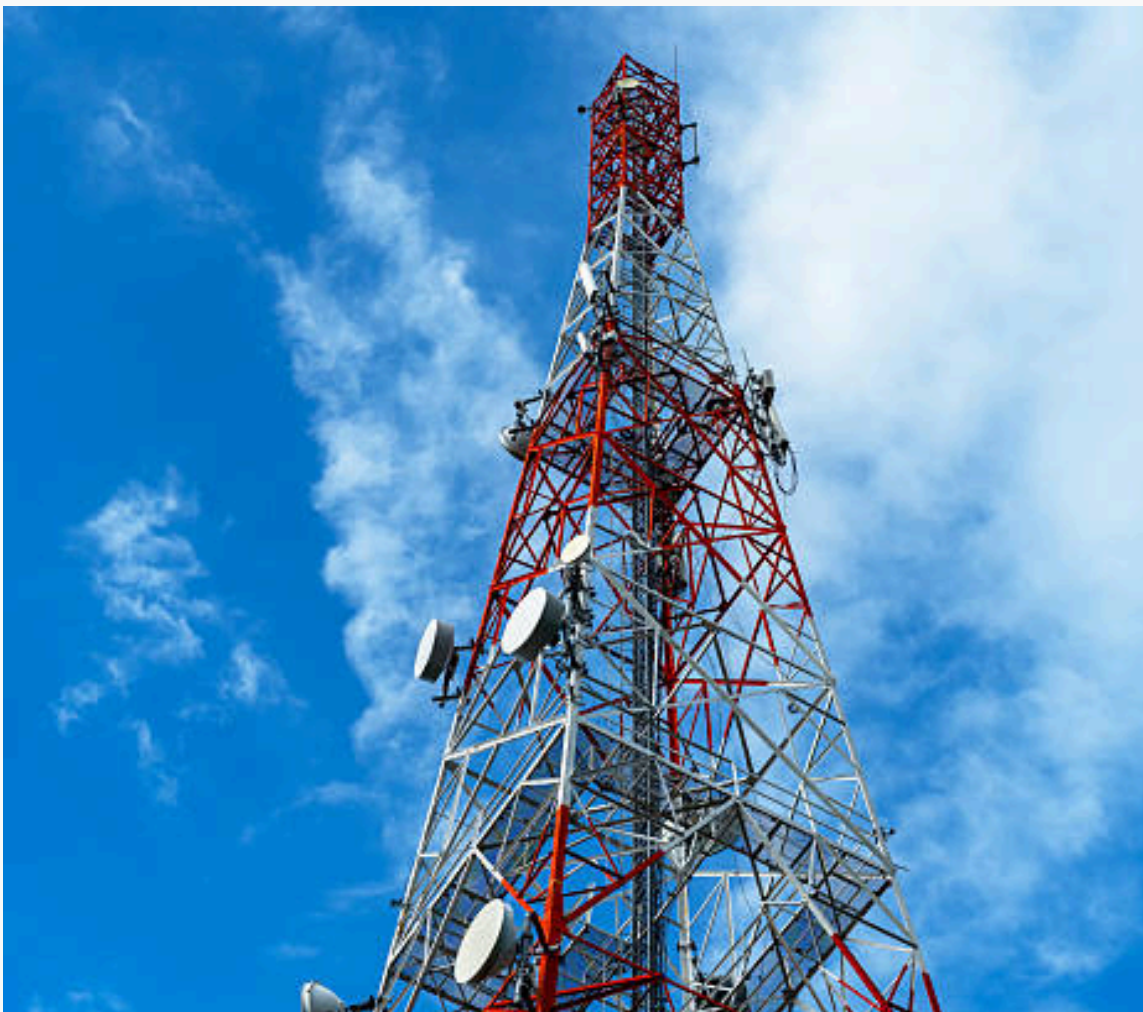
# SAFETY FEEDBACK

MARCH 2025

## EMERGENCY FREQUENCY BLOCKED (MANDATORY, **MEDIUM RISK**, ANSSO)

The emergency frequency (121.5) experienced some feedback from a radio station bleeding through on to the frequency. The matter required a request to CRAN from the regulator to track the offending radio station, a letter was addressed to CRAN and shortly after that, the source of the problem was rectified.

It is noted that the matter could have been fixed much earlier if accurate and timely reports were received.

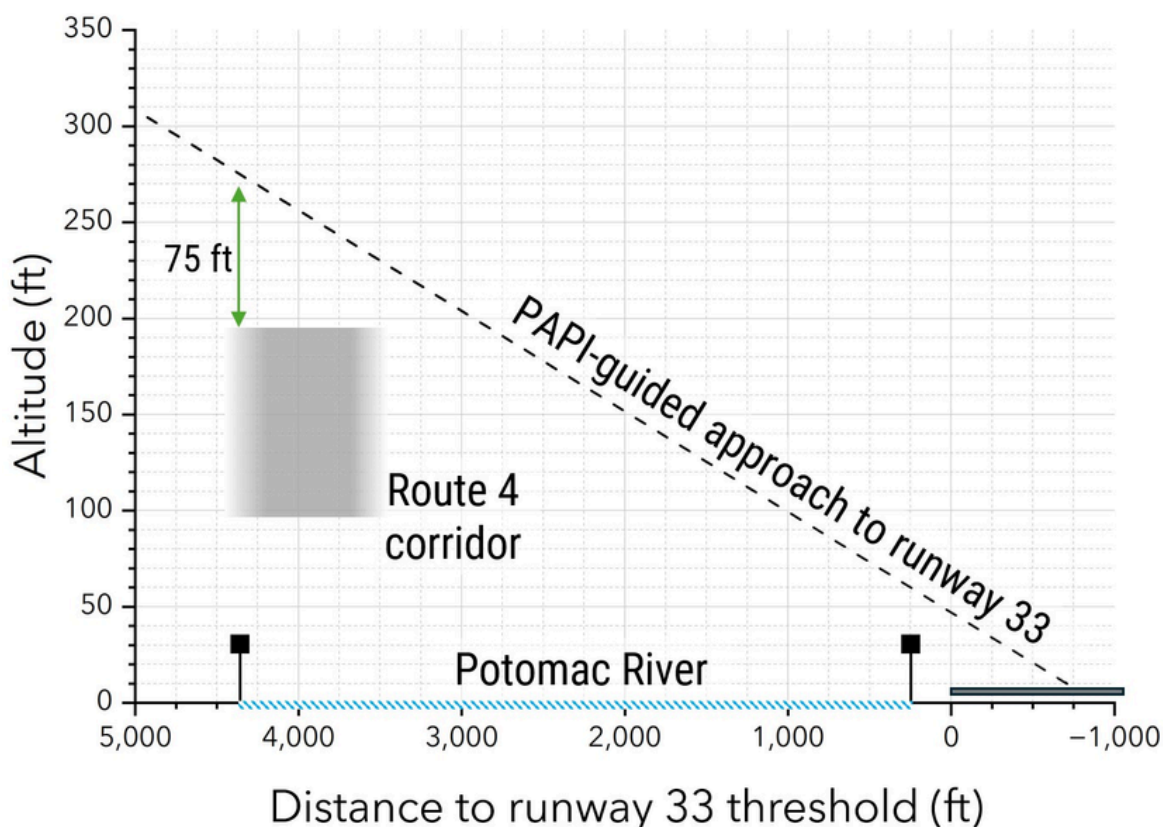


# INTERNATIONAL OCCURRENCES

APRIL 2025

## FEEDBACK ON POTOMAC MAC

In January we reported on an international event where a helicopter and a CRJ700 collided fatally injuring all on board. What is staggering about the event, is that in the preliminary report it was noted that there were over 85 loss of separation events in the preceding 36 months, specifically related to this portion of airspace (the intersection of Route 4 and Final RWY 33, see below) - that is averaging between 2 and 3 a month. Yet besides this staggering number of events no one had considered addressing the significant hazard contained within the operation of the helicopter route.



The accident that gave rise to the concept of safety reporting, approximately 50 years ago now, had a precursor event just months prior, yet, still we learn lessons from tragedies not from precursor events. **Remember if something does not look right, speak up, and keep speaking up till it gets fixed!**

# FROM OUR INTERNS

## TEOFILUS ANGALA - OPS INTERN 2025

I am grateful to Joining NCAA, the regulatory body which is mandated to conduct safety and security regulation of civil air operations in Namibia's airspace. Firstly, NCAA exhibits satisfactory safety and security standards on its facilities, I am referring to the offices and assets. I am impressed that the organisation upholds safety and security to the aviation assets and information they are handling.



I am deployed in Flight Operation (OPS), and I am impressed as to how the vibrant and dynamic team thrives to promote high standards of aviation safety for all international, regional and local air operators in the Namibia's airspace. The team ensures that NCAA upholds and preserves aviation safety and security by implementing NAMCATS and NAMCARS thus compliance with the ICAO SARPs and the Chicago convention.

Indeed, NCAA is committed to promoting high standards of aviation safety on various angles e.g. 1. Strengthen human capital by acquiring not only energetic youth but qualified professionals who can competently execute aviation activities effectively and efficiently; 2. Adopting and maintain modern technology equipment such as radar systems for air navigation; 3. Implementing Safety Management System (SMS), for operators; 4. Conducting regular auditing, inspection, and surveillance on service providers; 5. Conducting quality checks and implementing a performance management system; 6. Provision of training; and this is to mention but a few. All this progress reflects the assurance of aviation safety and a safer skies in Namibia. It is inspiring to observe that NCAA is intensely committed to comply with Namibian Aviation Act 16 (Act 6 of 2016.) for safety and sustainable flight operations in Namibia. I am impressed that Namibia recorded a minimum of aircraft accidents and incidents. However, we are not yet perfect, more needs to be done in term of aviation safety and security to achieve international standards, benchmarking with developed countries.

As an intern and student of UNAM, Aeronautical Science, I am delighted that NCAA is promoting knowledge sharing and skills transfer to empower young Namibian aviators to enhance aviation safety and security in Namibia. I must again appreciate that I indeed gained abundant experience and skills in Flight Operation and aviation safety.

*Thank-you NCAA!*

# SAFETY ARTICLE

## THE IMPORTANCE OF CALIBRATING AIRCRAFT FUEL GAUGES WHERE TANKS CANNOT BE RELIABLY DIPPED

Accurate fuel measurement is a cornerstone of aviation safety. The consequences of fuel miscalculation are potentially catastrophic, leading to engine failure, forced landings, or worse. While many aircraft fuel tanks can be manually dipped to confirm fuel levels, some aircraft, due to aspects such as dihedral, do not allow for reliable manual dipping. In these cases, reliance on the aircraft's fuel gauges becomes not only primary but absolute. It is for this reason regular calibration of the fuel indicators is essential.

### The Critical Role of Fuel Gauge Calibration

Fuel gauges in aircraft use a variety of technologies, from capacitive probes to magnetic float sensors. Over time, these systems can degrade due to factors such as corrosion, electrical interference, wiring wear, probe contamination, or software drift in digital systems. Environmental factors like temperature, vibration, and fuel composition can also introduce discrepancies in readings. In aircraft where manual dipping is not feasible, undetected inaccuracies in the fuel indication system pose a significant operational hazard.

Calibrating the fuel gauge ensures that the system's indicated quantity correlates accurately with the actual fuel on board. This is vital not just for pre-flight checks but also for monitoring fuel consumption in-flight, determining alternate planning needs, and managing fuel reserves during emergencies.

### Challenges with Non-Dippable Fuel Tanks

In traditional aircraft with accessible tanks, manual dipping provides a reliable cross-check against fuel gauge readings. Pilots and engineers can validate indicated values through direct measurement. However, non-dippable fuel tanks eliminate this redundancy. Without a reliable manual verification method, the integrity of the fuel indicators becomes singularly crucial. If calibration is not performed regularly, any errors in the system may go unnoticed until it's too late.

### Manufacturer Guidelines vs. Operational Best Practice

Aircraft and component manufacturers typically publish recommended maintenance intervals for all onboard systems, including fuel gauge calibration.

# SAFETY ARTICLE

## THE IMPORTANCE OF CALIBRATING AIRCRAFT FUEL GAUGES WHERE TANKS CANNOT BE RELIABLY DIPPED

However, history shows that these intervals are a minimum requirement and may not be enough, particularly if they are hour based and an aircraft is not flown regularly. In situations where the fuel tanks cannot be dipped reliably, the risk profile of extended time between calibration changes significantly.

In such cases, operators should consider implementing more conservative calibration intervals, regardless of the manufacturer's recommendations. While the OEM might specify calibration every 1000 hours or 24 months, a shorter interval—such as annual calibration—may be far better to align with safe operational practices under these specific conditions.

### Incorporating Fuel Gauge Calibration into the Maintenance Control Manual (MCM)

The MCM is a critical regulatory foundation in an aircraft operator's maintenance framework. It outlines the procedures, frequencies, and responsibilities for maintenance tasks, including any deviations or enhancements beyond the manufacturer's baseline instructions.

In circumstances where fuel tanks cannot be reliably dipped, it is advisable—if not essential—for the MCM to include a specific requirement for fuel gauge calibration at intervals not exceeding 12 months. This proactive measure ensures that calibration remains a routine and enforceable part of the maintenance cycle.



# SAFETY ARTICLE

## THE IMPORTANCE OF CALIBRATING AIRCRAFT FUEL GAUGES WHERE TANKS CANNOT BE RELIABLY DIPPED

The MCM should clearly state:

1. **Scope** – Specify which aircraft or tank configurations this applies to.
2. **Interval** – State the maximum permissible interval (e.g., annually) for calibration.
3. **Methodology** – Describe or reference the calibration procedure, including equipment used, test fuel quantities, and system tolerances.
4. **Documentation** – Detail record-keeping procedures for completed calibrations, including any deviations and corrective actions.

By formalising these procedures in the MCM, operators not only enhance safety but also demonstrate due diligence and regulatory compliance.

### Regulatory and Operational Considerations

The regulator requires that aircraft be maintained in an airworthy condition, with systems performing as intended. Fuel mismanagement due to inaccurate fuel quantity indication is a known causal factor in aviation incidents. As such, operators have a responsibility to identify and mitigate any systemic risks in their specific operating environment—including the inability to verify fuel levels manually.

Furthermore, regular calibration improves operational confidence, reduces the risk of unscheduled maintenance due to fuel discrepancies, and helps in maintaining accurate fuel consumption logs for planning and billing.

### Conclusion

Fuel gauge calibration in aircraft where tanks cannot be reliably dipped is not just a technical necessity—it is a critical safety practice. While manufacturers may offer broad guidelines for maintenance intervals, these should be reassessed in light of the operational context. Incorporating annual calibration requirements into the MCM ensures consistent compliance and reinforces a culture of proactive safety management. In aviation, where margins for error are slim, ensuring the accuracy of fuel quantity systems is a responsibility that cannot be deferred.

Don't forget, particularly in this case: **A small cost could prevent a large one!**

# SAFETY AND QUALITY WORKSHOPS

Take note of the following upcoming FREE safety and quality workshops to be held in NCAA headquarters and online, including lunch and refreshments. Venue: NCAA HQ and online, Time: 0900-1600

## Schedules:

- Safety Performance Indicators  
– 24th April
- SOP development and implementation workshop  
– 22nd May
- Safety Management System  
– 26th June
- Human Factors  
– 24th July
- Quality Management Systems  
– 28th August
- SOP development and implementation workshop  
– 25th September

**Book Now**

083 235 2468

spq@ncaa.na

4 Rudolf Herzog Street



**SAFETY STARTS WITH YOU!**



**Watch this space for upcoming events!**

All events are free of charge, as part of NCAA's mandate for improved safety. RSVP [spq@ncaa.na](mailto:spq@ncaa.na) with names and emails to register.

*Note: The SOP workshop is currently full but there is another one in September. The next available course is SMS.*

## SMS WORKSHOP



This interactive workshop will include tips and tricks to enhance your SMS, discussion on problem areas, and reminders on how to implement the key pillars of SMS.

**26th June**

- Content includes:
  - SMS Overview
  - Reporting
  - Safety culture
  - HIRM
  - Occurrence management
  - Case study
  - Safety promotion
- Venue: NCAA HQ and online
- Time: 0900 to 1600

**THIS IS A FREE EVENT!**

**Book Now**

083 235 2468

spq@ncaa.na

4 Rudolf Herzog Street



**SAFETY STARTS WITH YOU!**



# Introducing Hellen Vaendwanawa

Joining NCAA as a temporary Quality Specialist is Hellen Vaendwanawa.

Ms. Vaendwanawa is a highly qualified expert in quality management, beginning her career at DCA, and having managed the quality system at a number of smaller operators, before being elevated to the ranks of Quality Manager at Air Namibia. After the unfortunate closure of Air Namibia, NCAA provided Hellen with a very welcome return to the authority.

Hellen has conducted extensive training in aviation quality management systems and ISO 9001 implementation, including lead auditor certification, both in Namibia and abroad.

Stop by and say hello to Hellen and share with her any insights you may have for the NCAA QMS next time you are at head quarters.





Dear Stakeholder, We value your feedback and invite you to participate in our Stakeholder Satisfaction Survey by clicking the link below or scanning the QR code





## HIRM

NCAA again, invites YOU to keep a look out and report any hazardous observation, attitudes, or pre-cursor event. The more awareness of hazards the better our system moves from reactive to predictive. Together we can make the skies safer! And don't forget you can report online or via email.

---

## Updates

The aviation events directive was approved and is available online. The Post Holders directive received direction from the SSP SteerCom and the forum's technical working group now has a basis to develop a first draft which will then be Workshopped with industry. The risk assessment (RA) template has been revised to meet the recommendations of RA the advisory pamphlet, however it is noted that this is a guideline, your RA must comply with your manual.

Any questions about these or other NCAA documents can be directed to [spq@ncaa.na](mailto:spq@ncaa.na).

---

## Invitation to Contribute

Service providers and users are invited to contribute topics, ideas, articles, or questions to NCAA SPQ department for consideration in our safety publications or safety workshops. Remember the safety system only works with participation and information sharing is key to continuous improvement and achieving our global aviation safety goals.

Further information requests, submissions, or queries can be sent to:

email: [spq@ncaa.na](mailto:spq@ncaa.na)  
phone: 083 235 2468

