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DECEMBER
2022

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:

Shared Knowledge = Improved Safety

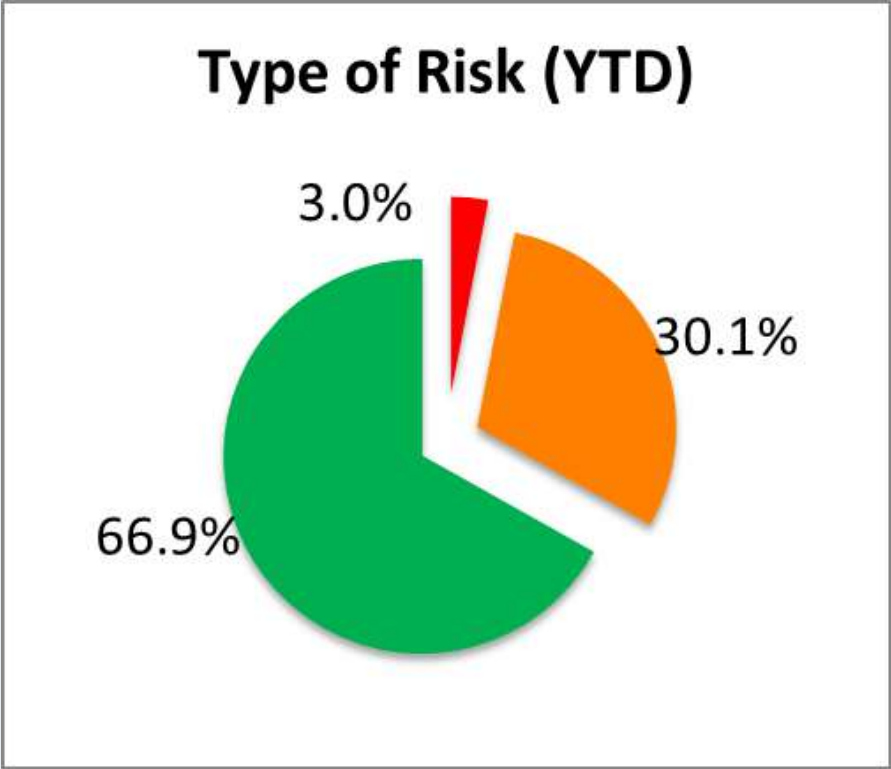


www.ncaa.com.na



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 or in cases of enforcement for gross negligence or willful misconduct.

Safety Statistics

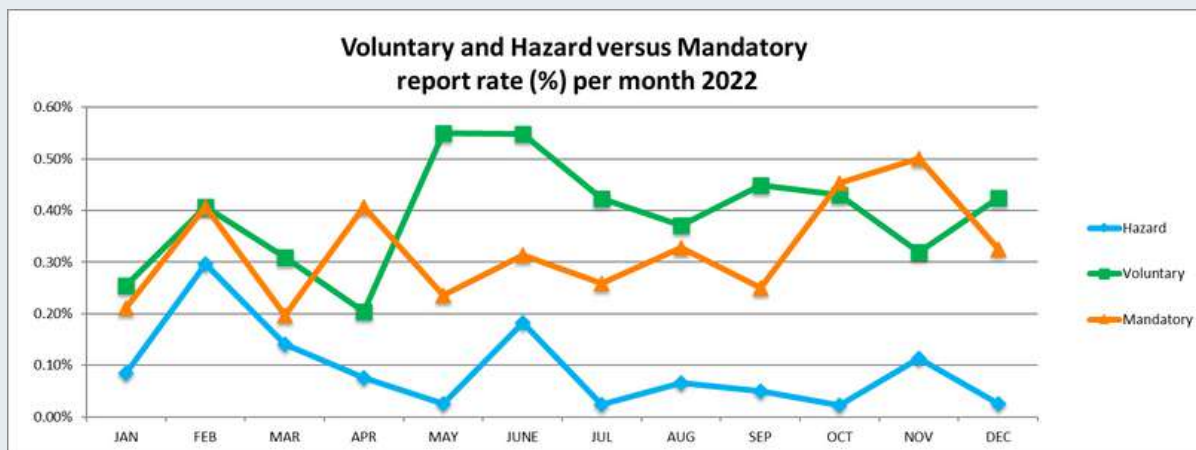


December 2022

In December 2022, 37 safety reports were filed. There were 29 low risk, only 8 medium risk events, and for the second month in a row there were no high risk events. Of the seven medium risk, five were bird strikes, one was a loss of separation in the circuit, and one was a precautionary landing due to an engine fault. The remarkably low medium and high risks for December resulted in an improved 67% low risk, 30% medium risk, and only 3% high risk.

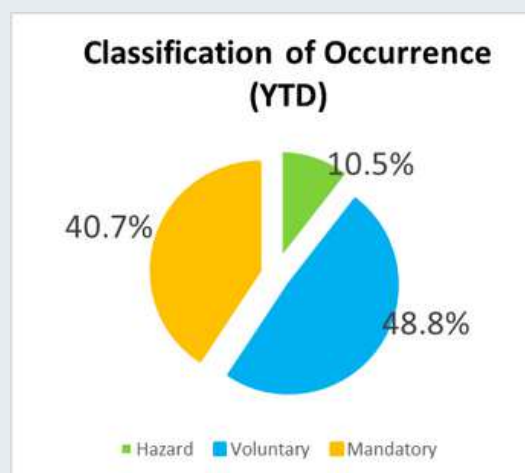
Unfortunately, there was one accident in December, a runway excursion, however details are not yet received, this will be reported in the January 2023 bulletin.

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



In December NCAA received 22 voluntary reports, two hazard reports, and 13 mandatory reports. This brings the total year to date to 59% or 220 non-mandatory reports and 151 mandatory reports. The total of 371 reports for the year.

The graph above shows rates of occurrence in percentage.



VOLUNTARY REPORTS

Sadly, NCAA failed to reach our target of 10% above our 2021 levels for voluntary and hazard reports, unfortunately the rate was even well below the 2022 level, at 3.9 reports per 1000 movements compared to 5.8 in 2021. Remember it is our aim with a developing SSP to see voluntary and hazards reports grow while mandatory reports and accidents decrease, NCAA reminds users that we welcome all types of reports through all means. Remember reports are the backbone of SMS and SSP. For easy voluntary and hazard reporting see *our link on the website, under the picture opposite or use the following link:*

<https://forms.office.com/r/WhYcLFfmmu>



Safety Performance Indicators 2022

For 2022, NCAA set targets in seven key safety areas and have reported on them monthly. For the year 2022, NCAA is pleased to report that four of the seven targets were achieved. Notable, are LOS due to dedicated SMS within our ANSP, and wildlife through our NAC wildlife management programmes. CFIT precursor events put this category above target and mainly due to reports of low flying events. It should be noted that NCAA has zero tolerance for these types of willful negligence and to date has issued several fines up to 20,000 and will continue to do so. A new target will be established for runway excursions as it was considered 2021 to be out of proportion. Further targets will continue on a rotational basis for 2023.

SPIS

	Airprox/LOS A CFIT		Rwy Excurs.	Wildlife	LOCI	Rwy Incurs.	Maint & Tech
Average	0.267	0.189	0.137	1.008	0.094	0.145	2.175
JAN	0.846	0.423	0.423	0.846	0.423	0.000	0.846
FEB	0.000	0.370	0.000	0.739	0.000	0.739	2.957
MAR	0.000	0.000	0.000	1.126	0.000	0.000	0.845
APR	0.000	0.254	0.254	1.272	0.000	0.509	2.799
MAY	0.262	0.523	0.262	1.308	0.000	0.000	2.093
JUN	0.000	0.000	0.000	2.350	0.261	0.261	2.089
JUL	0.235	0.000	0.000	1.877	0.000	0.000	2.112
AUG	0.656	0.000	0.000	0.219	0.219	0.000	2.185
SEP	0.499	0.000	0.250	0.250	0.000	0.000	1.747
OCT	0.453	0.453	0.000	0.679	0.226	0.226	2.489
NOV	0.000	0.000	0.456	0.684	0.000	0.000	3.191
DEC	0.250	0.250	0.000	0.750	0.000	0.000	2.750
Target	0.307	0.061	0.031	1.994	0.123	0.153	2.117
Avg	0.341	0.068	0.034	2.215	0.136	0.170	2.352
SD	0.428	0.171	0.085	2.533	0.206	0.248	1.206
Alert 3	0.769	0.239	0.120	4.749	0.342	0.419	3.558
Alert 2	1.198	0.410	0.205	7.282	0.548	0.667	4.764
Alert 1	1.626	0.581	0.290	9.815	0.754	0.915	5.970






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!

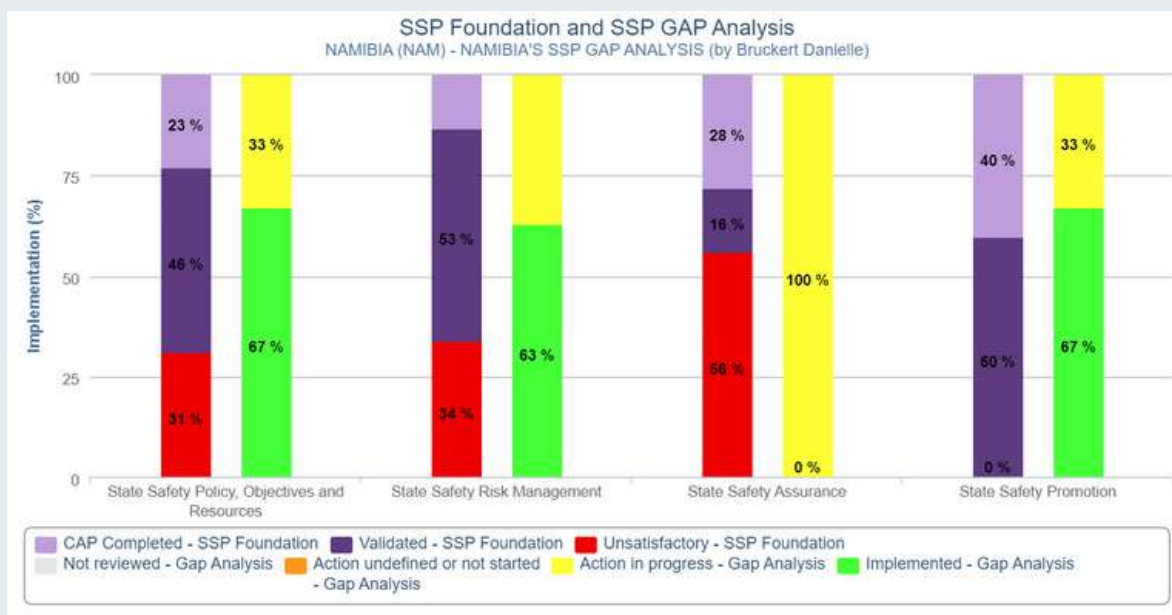
incidents@ncaa.na

Safety Thought for the Month

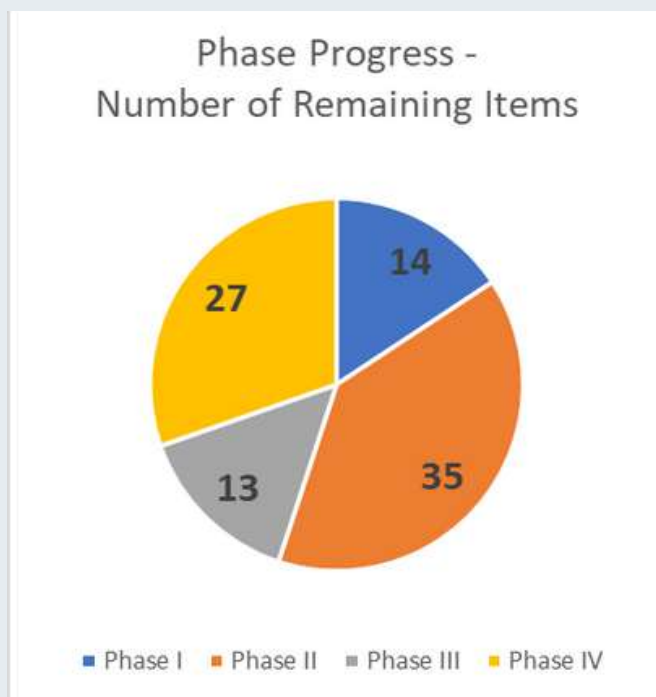
"I think it's important that people understand how dangerous flying can be if an acceptable level of safety is not established and continually worked on. Know that safety is not a luxury. It's a requirement." - Anon

Stay Safe!

Reporting

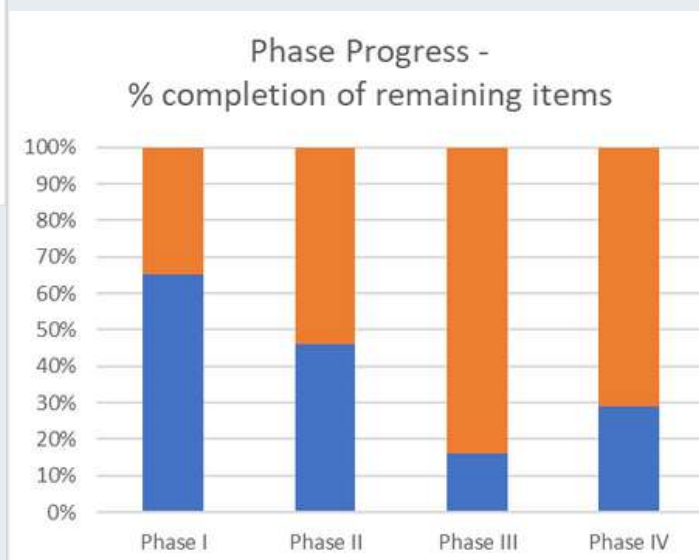


"AVIATION SAFETY AND SECURITY LIES AT THE CORE OF EVERYTHING THAT THE NCAA DOES, WHAT WE STAND FOR AND THE REASON FOR OUR EXISTENCE" ~ EXECUTIVE DIRECTOR



Of note remaining in Phase 1 is the full implementation of SMS among service providers within the aviation system and this will be a key focus for NCAA in 2023. NCAA will also focus on safety assurance in terms of implementation of risk based surveillance and monitoring and measuring of the safety systems.

With dedicated work of everyone involved, and a big thanks to the SSP Steering Committee and Technical Working Group for 100% implementation of the 2022 meetings, NCAA would like to share our statistics on the State Safety Programme. There is a total of 65 items fully completed and the 89 remaining items are at 39% completion resulting in an **overall implementation of 65%**. Further, NCAA is on schedule to complete the remaining 14 items in phase 1 by mid 2023.



SAFETY OCCURRENCES

DECEMBER 2022

TECHNICAL FAULTS (MANDATORY, LOW/MEDIUM RISK, AIR/OPS)

There were 13 technical events reported in December, as follows:

- One engine fault resulting in a successful precautionary landing (note this event, an engine failure in a single engine aircraft is considered **medium risk**);
- Three radio communications failures (RCF) successfully completed;
- One electrical failure resulting in an RCF;
- One incident of a flat tyre;
- Two inflight turn backs due to unspecified technical faults;
- Two aborted takeoffs due to an invalid takeoff configuration warning;
- One pressurization fault;
- One failure of weather radar;
- One door fault;

NCAA very much hopes to hear more from our Aviation Maintenance Organisations to close these reports. For our engineers, please see April's article on service difficulty reports (SDRs) and mandatory occurrence reports (MORs), and note that nearly all unscheduled failures require a incident report.



SAFETY OCCURRENCES

DECEMBER 2022



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

There were seven wildlife events reported in December. Four bird strikes were reported at FYWH, two on takeoff and one on upwind, one undetermined. One bird strike was reported on landing at FYWE. None of the events had reported any damage to the aircraft.

There was one hazard report for recurrent events of guineafowls at FYWE the report has been forwarded to NAC and pilots are to exercise caution.

There was a report of cows grazing at FYOW.

The average rate of wildlife strikes for 2022 was 1.008 bird strikes per 1000 movements, well below the 2021 level and very close to the ICAO recommended level.

SAFETY OCCURRENCES

DECEMBER 2022

LOSS OF SEPARATION (LOS) IN THE CIRCUIT (MANDATORY, MEDIUM RISK, PEL/ANSSO)

A pilot reported that they were not provided with adequate separation from circuit traffic during a training session. One aircraft was downwind, and one approaching to join base, the aircraft downwind did not have the joining aircraft in sight and elected to orbit without clearance in the interest of safety.

As the person at the sharp end, pilots sometimes feel they know best and can always elect to take emergency actions where it is necessary for safety, but as in the LOS occurrence in September demonstrated, this can sometimes have disastrous consequences. Where at all possible always confirm actions with ATC prior to implementation.

ATS RELATED EVENTS (MANDATORY, LOW RISK, ANSSO/OPS)

The following ATS failures and faults occurred:

- One shift occurred where no assistant was available;
- One event where an aircraft failed to comply with their clearance, turning out right instead of left, resulting in unnecessary routing for scheduled traffic, the reason is not yet determined and under investigation;
- There was one event where an aircraft failed to report when transiting a VFR traffic lane adjacent to controlled airspace but was heard on the unmanned frequency following;
- A pilot made an uncalled-for sarcastic remark about ATS while there was a NOTAM indicating training in progress and pilots too exercise patience.*

**Please note that this type of behavior is unacceptable and unsafe. Also note that ATC often demonstrate patience for flight training and most pilots will recall an event whereupon they were afforded this provision, so pilots please extend ATC the same courtesy when they are undergoing training.*

SAFETY OCCURRENCES

DECEMBER 2022

GO AROUNDS AND WEATHER RELATED EVENTS (VOLUNTARY, LOW RISK, OPS/ANSSO)

There was one go around due to unstable approach, reason unspecified, there were three go arounds due to windshear, and there were three weather diversions.

There was one go around due to traffic, the pilot failed to report on base as requested due to frequency congestion, but reported on short final, as the controller assumed the traffic was still downwind and lined up another aircraft.

Note also the event under ATS related events on the previous page - pilots are reminded of the importance of adhering to clearances, where possible write them down and brief yourself, for two crew operations, ensure both pilots hear clearances wherever possible and brief on them.

EXPLOSIVES WITHOUT NOTAM (VOLUNTARY, LOW RISK, ANSSO)

The police requested detonation of an unexploded mortar shell which was discovered close to a sand quarry road and near to the airport. The potential hazard was considered to be classified as an emergency and ATS approved the detonation.



SAFETY OCCURRENCES

DECEMBER 2022



EQUIPMENT AND DOCUMENTS INVALID (MANDATORY, **LOW RISK**, OPS)

On a routine ramp inspection a pilot was found to be operating without a valid Special Flight Permit (SFP) for the non-type certified aircraft. On further inspection it was discovered additionally the pilot did not have a valid license on his person nor a certificate of competency, despite insisting he had completed the test. The pilot also had a lapsed Class 1 medical, however his class 2 was still valid. The aircraft also did not have valid insurance papers and the technical log was not up to date reflecting all the recent flights. Lastly it was discovered that the fire extinguisher could not be determined as within validity since the date was not distinguishable and thus needed to be renewed.

NCAA takes regulatory breaches very seriously, OPS and PEL are investigating for possible enforcement action.

AERODROMES (VOLUNTARY, **LOW RISK**, AGA)

There was one event of work in progress without a NOTAM. AGA is investigating.

SAFETY OCCURRENCES

DECEMBER 2022

A graphic with a dark blue background. On the left, there is a stylized illustration of a landscape with green hills and a blue sky with white clouds. Several colorful speech bubbles (purple, orange, teal, and pink) containing question marks are floating above the hills. A large, thick orange curved line separates this illustration from the right side. On the right side, the NCAA logo is in the top right corner. Below it, the text "Does your SMS have more questions than answers?" is written in white and yellow. Further down, the text "Ask NCAA" is displayed, with "Ask" in a script font and "NCAA" in a bold sans-serif font. Below this, the email address "spq@ncaa.na" is shown in a yellow rounded rectangle. At the bottom left, there are icons for a phone and a globe, followed by the phone number "083 235 2468/2511" and the website "www.ncaa.com.na". At the bottom right, there is a grid of white dots.

Does your SMS have more questions than answers?

Ask **NCAA**

spq@ncaa.na

☎ 083 235 2468/2511

🌐 www.ncaa.com.na

SPQ is the unit responsible for NAMCAR Part 140, issued in 2018, and consequently overall responsible for implementation of SMS, a requirement of this Part. Under Part 140 applicability, SMS applies to all service providers and complex international general aviation operators. A significant part of Phase one of our SSP implementation plan is this full implementation of SMS, and which is also required by ICAO Annex 19. This task has our highest priority for 2023 and SPQ looks forward to working with all five safety divisions and their service providers and our GA operators in the coming year for fulfillment of this aim. If you have an SMS that is not approved yet, please feel free to drop us a line.

SAFETY ARTICLE:

CIVIL AVIATION ACT AND PILOT RESPONSIBILITIES

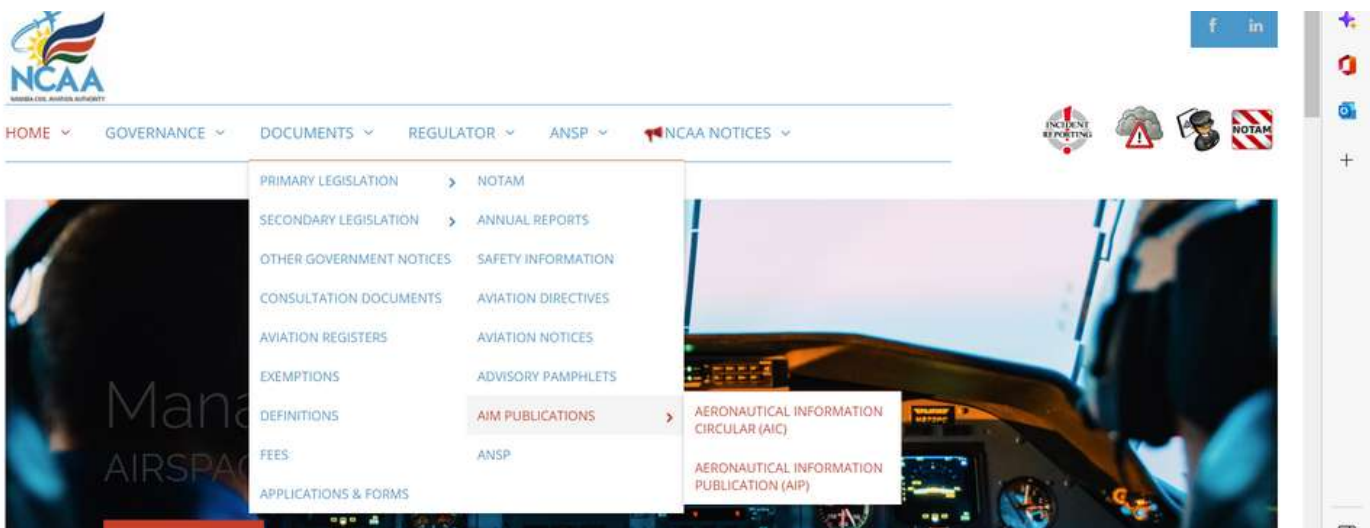
The Aeronautical Information Publication is approximately one-quarter of Namibia's answer to ICAO obligations to have an aeronautical information service. (The other three-quarters are a preflight information service, NOTAMs, and aeronautical information circulars). Consulting the AIP is a fundamental part of flight planning because it contains a mixture of advice and information from a variety of sources, including aerodrome operators. The AIP is not, in itself, legally enforceable. But, depending on the underlying requirements of the Civil Aviation Regulations (NAMCARs) or those of the Civil Aviation Act, No. 6 of 2016, (referred to here as 'the Act'), information in the AIP can become a compulsory requirement.

Pilot Obligations Under Section 71 and 91.01.11

Section 71 of the Act is a key provision obliging the pilot in command to ensure the safe operation. Further 91.01.11 dictates that no person shall act in a manner endangering an aircraft. The aeronautical information in the AIP constitutes a provision of safety standards and practices for operational purposes. As such, acting contrary to procedures in the AIP could constitute a breach these provisions.

The AIP and the Regulations

Rule 91.02.7 and 91.09.1 provides a good example of how the regulations and the AIP work together. Under these regulations a pilot must ensure performance requirements meet standards and minimum safe heights are complied with, and that can only be done by referencing the information that is published in the AIP.



SAFETY ARTICLE:

LOW FLYING

NAMCAR 91.06.33 is there for a reason!

Namibia publishes minimum safe heights in accordance with ICAO Annex 2 to the International Convention on Civil Aviation. Additionally the Regulations Related to Nature Conservation have height limits over a national park.

These include, except if taking off or landing:

1. 1000ft over a built up area - This provides for safer handling of an engine failure with more options for a safe landing with height;
2. 3000ft when circling over an open air assembly;
3. 3000ft over a National Park;
4. 500ft above ground in all other circumstances.

Avoidable Accidents

Disregarding minimum safe heights is a major contributory factor to CFIT accidents which are primarily fatal. If not for the well being of your passengers as required by Civil Aviation Act Section 71, self-preservation should make minimum safe altitudes a necessary element in your flying toolkit. Low flying accidents fall into a category of *avoidable accidents* and with your help can be completely eliminated

Flying at low level is unsafe because:

- there are more obstacles to avoid, many of which are hard to see until it is too late (e.g. powerlines and birds)
- pilots have a higher workload because there are more hazards to negotiate in the environment
- there may be turbulence and windshear that pilots do not encounter at higher levels and
- there is very little time to recover control of the aircraft if something goes wrong.

Altitude above you is one of the most useless things in aviation - build yourself some time, add some altitude to your operations!

SAFETY ARTICLE:

LOW FLYING

If you have been trained and are qualified for low flying, and low flying is necessary and authorised, for example agricultural operations, ensure that you conduct a thorough ground and aerial survey of the area from an appropriate height before you conduct any low flying. You must have been trained and are qualified for low flying, and a careful pre-flight assessment and planning is an important part of any flight. Make sure you have maps of your intended flight path with you when you fly, and study them before you get into your aircraft to identify any terrain, wire, or other obstacles that you need to avoid.

Low-level flying, furthermore, presents fewer opportunities to recover from a loss of control compared to flight at higher altitudes. It takes time to react and to regain control of an aircraft, and the closer to the ground you are, the less time and distance you have. Flying at low altitudes is not only risky when things are going right; it becomes downright perilous when things are going wrong.

The Enforcement Code

NCAA considers low flying a case of willful non-compliance, and if it can be proven will apply the full extent of the application of NAMCAR 185 assessment determination matrix to issue fines and if the situation is repeated consider revocation of the perpetrator's aviation document in terms of Civil Aviation Act Section 69.



SAFETY ARTICLE:

RUNWAY EXCURSIONS

According to the Flight Safety Foundation the majority of runway excursions are preceded by one or more of the following key events:

Flight crew technique and decision-related factors

- flying an unstabilised approach
- landing too fast, too far down the runway, or conducting an extended flare
- delayed or incorrect braking action
- 'press-on-itis'
- not conducting a missed approach or go-around despite unsafe landing conditions
- delayed decision to reject takeoff

Flight crew performance-related factors

- less than adequate flight crew awareness of procedures or systems
- spatial disorientation, visual illusions, fatigue and task saturation
- less than adequate operator procedures for assessing if weather or runway conditions are safe for landing
- less than adequate awareness of the effect of weather and runway conditions on actual landing roll-out length

Weather-related factors

- operating on a wet or contaminated runway
- landing in heavy rain, wind shear, excessive tailwinds or crosswinds
- inconsistent reporting of runway conditions and braking action at airports across the world

Systems-related factors

- aquaplaning on a wet runway
- malfunction or unexpected action of braking systems.

In most runway excursions, any one or combination of these factors can lead to an unsafe outcome because of non-adherence to standard operating procedures, or less than adequate operator procedures for safe approaches and landings. Less than adequate procedures or non-adherence to procedures led to an unstabilised approach, resulting in a long, fast, or otherwise unsafe landing; or a landing in poor weather conditions with unsuitable runway conditions for the aircraft type, resulting in a loss of control on the runway.



SAFETY ARTICLE:

RUNWAY EXCURSIONS

The following outlines some key prevention strategies to keep in your toolkit for avoiding runway excursions:

Flight crew technique and decision-related factors

- Be "go around orientated". Always have a decision point on your approach where you can consider carefully if the approach is stable and conditions on the airport are suitable for a landing.
- Where the aircraft performance does not have a VI, ensure during your takeoff briefing you clearly brief yourself and the crew the takeoff continuation point and what emergencies warrant a rejected takeoff, especially if you are field length limited. For aircraft with a VI, ensure your accelerate stop distance is adequate.
- Be aware of the wind on final approach, a tailwind indicated by your ground speed on the GPS, can significantly increase the chances of a runway excursion.
- Stay current on the aircraft type you fly and for private operators consider some regular practice in challenging conditions with an instructor;

Flight crew performance-related factors

- Prepare yourself fully for the flight by reviewing aircraft performance, airport dimensions, and ensure you consider the weather conditions on departure or arrival performance
- Ensure you do a self check using the I'm Safe acronym - Illness, Medication, Stress, Alcohol, Food, Emotion. Each have a significant effect on your performance.

Malfunction

- Check your brakes before landing to determine if there is any potential failure where this is possible for your aircraft type. Avoid applying braking at high speed whenever possible, the lower the speed the less impact a failure will have.

What to do if you have a runway excursion

If all else fails and your aircraft does depart the runway, ensure you know your emergency procedures.

- Shut down the engine
- Secure the engine, fuel, electrics to prevent a fire
- Evacuate all on board by the most expeditious means



**Rather be on the ground wishing you were airborne
than in the air wishing you were on the ground -**

**Take care with weather decision making,
especially during our rainy season!**

NCAA Updates

NCAA has approved new procedures for safety management system and a procedure for fit and proper person is under review. Once fully approved, these will be implemented with the aim to complete uptake on both by all service providers before mid 2023.

The NASP has been approved by NCAA senior management and is scheduled to be presented to the NCAA Executive Committee in January.

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

phone: 083 235 2468

