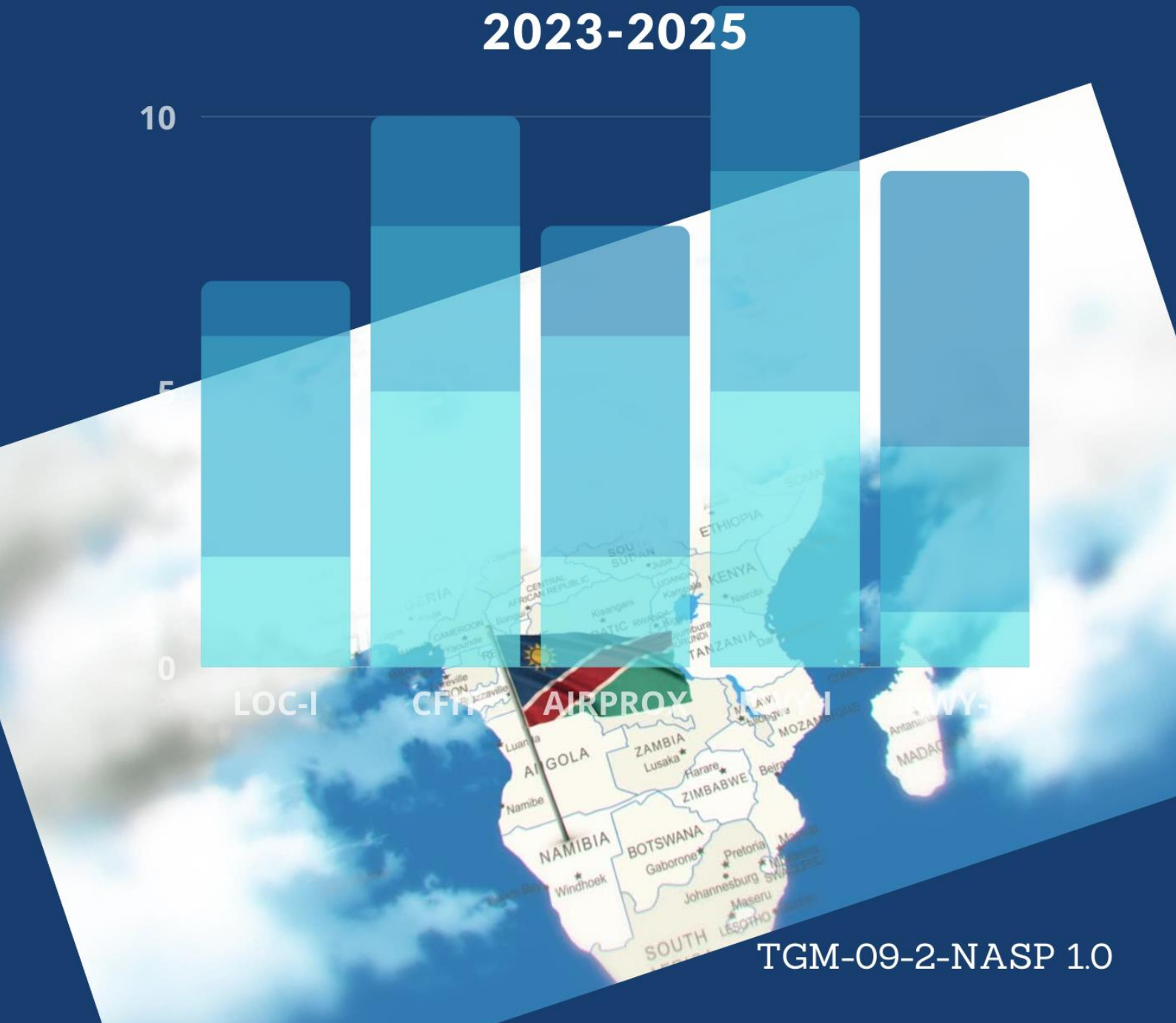
NAMIBIA CIVIL AVIATION

NATIONAL AVIATION SAFETY PLAN

2023-2025



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Technical Guidance Material – Volume 9

NATIONAL AVIATION SAFETY PLAN

Part 2

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Change Summary

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1.0	First Edition	SPQ	15th of June 2023

NOTE:
1. When amended, this document will be re-issued in full. Each page will indicate the edition number and the effective date. The edition number shall be the same on each page.
2. When printed this document is uncontrolled.

Contents

0.1 FOREWORD

0.1.1 In line with the Safety Strategic Objective of the International Civil Aviation Organization (ICAO) and founded on the 2020-2022 edition of the *Global Aviation Safety Plan* (GASP, Doc 10004) Namibia has developed the National Aviation Safety Plan, which outlines key safety enhancement initiatives (SEIs) at the national level, the roles, and responsibilities for safety within the State, and provides a framework for the cooperation and collaboration of these. The national aviation safety roadmap, included in the NASP, serves as an action plan to assist the aviation community in achieving the NASP goals through a structured, common frame of reference for all relevant stakeholders.

0.1.2 The national aviation safety plan (NASP) outlines Namibia's strategic direction for the management of aviation safety for 2023 to 2025. The plan is developed in line with the GASP goals, targets, and high-risk categories of occurrences (HRCs), while catering for Namibia's specific safety demands. The NASP demonstrates Namibia's commitment to the continual implementation of activities for the improvement of safety.

0.1.3 The NASP aligns with the Integrated Strategic Business Plan (ISBP) in terms of the focus and levels of improved Effective Implementation (EI), the ASBU targets, State Safety Programme (SSP) implementation, and NCAA's core mandate to ensure safety and security continue to improve.

0.1.4 The content of this manual was developed with inputs from experts from the civil aviation authority, industry, as well as governmental and non-governmental aviation organizations, and thereafter submitted for extensive peer review, taking into account feedback from the expert community. NCAA gratefully acknowledges the contributions of the organisations and industry, state and individual experts who provided support, advice, and input for the creation of this plan.

Date:

Bethuel T. Mujetenga
Chairperson of the Board: Namibia Civil Aviation Authority

0.2 REFERENCES

0.2.1 The following documents are referenced in creation of the National Aviation Safety Plan:

1. *ICAO Annex 19, Second Edition, 2016;*
2. *ICAO Global Aviation Safety Plan, 2020-2022 Edition, Document 10004;*
3. *ICAO RASP and NASP Development, Document 10131, Edition 1, 2020;*
4. *ICAO Document 9859 Safety Management Manual, Fourth Edition, 2018.*
5. *ICAO Safety Oversight Manual, Document 9734, Edition 3, 2017;*
6. *Comprehensive Regional Implementation Plan for Aviation Safety in Africa (Afi-Plan) 2004;*
7. *Abuja Declaration on Safety, 2012, revised 2017;*
8. *Namibia Civil Aviation Act, No 6 of 2016 (the Act)*
9. *Namibian Civil Aviation Regulations (NAMCAR) Part 140, 2018;*
10. *Namibian Civil Aviation Technical standard NAMCATS-SMS-140, 2021;*
11. *Namibian State Safety Programme Manual, Edition 1, 2022;*

0.3 CONTRIBUTIONS

0.3.1 The following agencies, organisations, companies have contributed to making this a comprehensive and nationally owned aviation safety plan:

1. Directorate of Aircraft Accident and Incident Investigation;
2. Ministry of Works and Transport;
3. Namibia Meteorological Services;
4. FlyNamibia;
5. Namibia Airports Company;
6. Namibian Defence Force;
7. Government Air Transport Services;
8. Aircraft Owners and Pilots Association; and
9. Namibia Air Navigation Service Provider.

0.3.2 The NCAA thanks all the contributors and looks forward to a continued relationship for the 2023 edition.

0.4 GLOSSARY

0.4.1 DEFINITIONS

Accident investigation authority. The authority designated by a State as responsible for aircraft accident and incident investigations within the context of Annex 13.

Audit. A systematic, independent, and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements and audit criteria are fulfilled.

Audit area. One of eight audit areas pertaining to the Universal Safety Oversight Audit Programme (USOAP), i.e., primary aviation legislation and civil aviation regulations (LEG), civil aviation organization (ORG); personnel licensing and training (PEL); aircraft operations (OPS); airworthiness of aircraft (AIR); aircraft accident and incident investigation (AIG); air navigation services (ANS); and aerodromes and ground aids (AGA).

Contributing factors. Actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident or incident occurring, or mitigated the severity of the consequences of the accident or incident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil, or criminal liability.

Critical elements (CEs). The critical elements of a safety oversight system encompass the whole spectrum of civil aviation activities. They are the building blocks upon which an effective safety oversight system is based. The level of effective implementation of the critical elements is an indication of a State's capability for safety oversight.

Effective implementation (EI). A measure of the State's safety oversight capability, calculated for each critical element, each audit area or as an overall measure. The EI is expressed as a percentage.

Gap analysis. An evaluation that compares an existing situation to the desired one, it identifies specific steps that can be taken to reach a desired goal.

Hazard. A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note. — The types of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are listed in Annex 13, Attachment C.

Maximum mass. Maximum certificated take-off mass.

Operator. The person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Safety. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Safety audit. A USOAP CMA audit that a State requests and pays for (on a cost-recovery basis). The State determines the scope and date of a safety audit. Also see definition of *audit*.

Safety enhancement initiative (SEI). One or more actions to eliminate or mitigate risks associated with contributing factors to a safety occurrence or to address an identified safety deficiency.

Safety management system (SMS). A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies, and procedures.

Safety oversight. A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations.

Safety performance. A State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators.

Safety performance indicator. A data-based parameter used for monitoring and assessing safety performance.

***Safety performance target*.** The State or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

State safety programme (SSP). An integrated set of regulations and activities aimed at improving safety.

0.4.2 ABBREVIATIONS AND ACRONYMS

ADREP	Accident/Incident Data Reporting
DAAII	Directorate of Aircraft Accident and Incident Investigation
AMO	Aircraft Maintenance Organisation
AOPA	Aircraft Owners and Pilots Association of Namibia
ARO	Aviation Recreational Organisation
ATC	Air Traffic Control
ATO	Approved Training Organization
ATS	Air Traffic Services
CAST	Commercial Aviation Safety Team
CFIT	Controlled Flight Into Terrain
CICTT	ICAO Common Taxonomy Team
GASP	Global Aviation Safety Plan
HRC	High-Risk Category Of Occurrence
ICAO	International Civil Aviation Organisation
LOC-I	Loss Of Control In-Flight
LOS	Loss of Separation
MAC	Mid Air Collision
MWT	Ministry of Works and Transport
NAC	Namibia Airports Company
NASP	National Aviation Safety Plan
NCAA	Namibia Civil Aviation Authority
NCLB	No Country Left Behind
NDF	Namibian Defence Force
NSI	National Safety Issue
PIRG	Planning And Implementation Regional Group
PQ	Protocol Question
RAIO	Regional Accident and Incident Investigation Organization
RASG	Regional Aviation Safety Group
RASP	Regional Aviation Safety Plan
RSOO	Regional Safety Oversight Organization
SARP	Standards And Recommended Practices
SDCPS	Safety Data Collection and Processing System
SEI	Safety Enhancement Initiative
SMS	Safety Management System
SSC	Significant Safety Concern
SSP	State Safety Programme
USOAP	Universal Safety Oversight Audit Programme

SECTION 1. INTRODUCTION

1.0.1 The National Aviation Safety plan of Namibia (NASP) is the documented output of an aggregated safety risk analysis conducted in the safety risk management processes of the State Safety Programme of Namibia. The plan provides a risk picture of the aviation safety system in Namibia from a State perspective. The purpose of the Safety plan of Namibia, which will be updated annually, is to outline to stakeholders that NCAA, in addition to normal regulation oversight activities, will target resources to improve safety, with specific targets set for the period 2023 to 2025. The objective of the plan, in accordance with the objective of the Regional Aviation Safety Plans (RASP) and the ICAO Global Aviation Safety Plan (GASP), is to reduce accidents in all aviation segments to as low as reasonably practicable (ALARP), by promoting and enhancing civil aviation safety, with special emphasis on the prevention of aviation accident and incidents.

1.1 Overview of the NASP

1.1.1 Namibia is committed to enhancing aviation safety and to the resourcing of supporting activities. The purpose of this National Aviation Safety Plan (NASP) is to continually reduce fatalities, accidents, and safety risks, through the development and implementation of a national aviation safety strategy. A safe aviation system is vital, particularly in a tourism driven economy, and vastly contributes to the economic development of Namibia and its industries. The NASP promotes the effective implementation of Namibia's safety oversight system, a risk-based approach to managing safety, strategic data driven safety performance targets, as well as a coordinated approach to collaboration between Namibia and other States, regions, and industry. All stakeholders are encouraged to support and implement the NASP as the strategy for the continuous improvement of aviation safety.

1.1.2 The NASP of Namibia is in alignment with the *NCAA SSP Manual 2023-2025* and the *NCAA SSP Implementation Plan*, the NCAA Strategic Plan, ICAO *Global Aviation Safety Plan* (GASP, ICAO Doc 10004) the *Comprehensive Regional Implementation Plan for Aviation Safety in Africa (Afi-Plan) 2004, and the Abuja Declaration on Safety, 2012, revised 2017.*

1.2 Commitment to Safety

1.2.1 Namibia's commitment to safety is outlined in the Safety Policy which is found in Appendix A to the State Safety Programme Manual (SSP Manual). Namibia is committed to achieving a safety risk level as low as reasonably practicable, and to do this the aviation safety system will undergo continuous improvement, including the update of this plan annually to respond to new data and assessments.

1.2.2 Namibia's Safety Policy describes the commitment to avail the required resources, human and financial, for aviation safety management and oversight. This includes implementation of the action items required by this plan.

1.3 Structure of the NASP

1.3.1 This NASP presents the strategy for enhancing aviation safety for a period of three years. It comprises five sections. In addition to the introduction, sections include: the purpose and time bound objectives of the NASP, Namibia's strategic approach to managing aviation safety and the national operational and organisational safety risks identified for the 2023-2025 NASP, safety oversight, and a description of how the implementation of the safety enhancement initiatives (SEIs) listed in the NASP are going to be monitored. The appendix to the NASP provides the aviation safety roadmap in the form of detailed safety enhancement initiatives for organizational and operational risks identified by the NASP.

1.4 Relationship Between the NASP and the State Safety Programme (SSP)

1.4.1 This NASP primarily addresses operational safety risks identified in the ICAO GASP and targets from the Abuja Declaration on Safety in Africa in the absence of a fully implemented SSP in Namibia. Some risks and figures have been identified from Namibia's operational Safety Data Collection and Processing System (SDCPS). Namibia is committed to fully implement an SSP by Q4 of 2024 as a State's responsibilities for the management of safety comprise both safety oversight and safety management, collectively implemented through an effective SSP. Initiatives listed in this NASP address operational and organizational challenges and aim to enhance organizational capabilities related to effective safety oversight and SSP implementation.

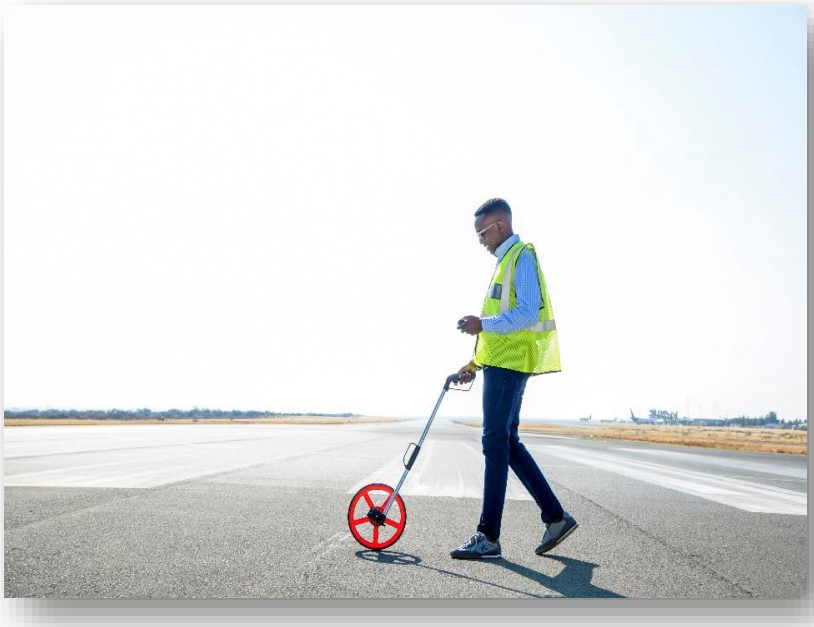
1.4.2 While the NASP provides time bound safety objectives, safety enhancement initiatives, safety goals, and the metrics for safety performance indicators and targets, the SSP provides the specific functions to achieve the goals and targets of the NASP and comprises a range of processes and activities that together provide Namibia with the means to manage safety and to deliver well-directed safety oversight. An effective SSP assists to proactively identify hazards and mitigate safety risks at the national level. The SSP together with the NASP is the foundation on which Namibia builds a proactive approach to national aviation safety.

1.4.3 Through an effective SSP, Namibia intends to identify and mitigate national operational safety risks. The SSP provides safety information to the NASP to develop goals, targets, initiatives, and roadmaps. The SSP allows Namibia to manage its aviation activities in a coherent and proactive manner, measure the safety performance of its civil aviation system, monitor the implementation of the NASP's SEIs, and address any identified hazards and deficiencies to continually improve the system. The NASP is one of the key documents produced as part of Namibia's SSP documentation. It is the means by which Namibia defines and drives the implementation of SEIs generated by the SSP process and drawn from the ICAO GASP. It also allows Namibia to determine initiatives to strengthen the SSP as needed to achieve its safety objectives. Further information on Namibia's SSP can be found in Namibia's SSP Manual 2022, available on NCAA's website, https://www.ncaa.com.na.

1.5 Responsibility for the NASP Development, Implementation and Monitoring

1.5.1 The Namibian Civil Aviation Authority (NCAA) is responsible for the development, implementation, and monitoring of the NASP, in collaboration with the SSP Steering Committee, (SSP SteerCom) and with the national aviation industry. The NASP was developed using data from the national safety data collection and processing systems and safety risk management processes in consultation with national operators and other stakeholders, and in alignment with the 2020-2022 edition of the GASP.

1.6 Operational Context



1.6.1 There are two certified aerodromes in Namibia, which are also the only international airports as per NAMCARs 139, they are further supplemented by 6 six licensed aerodromes that are gazetted as ports of entry and approximately 34 registered aerodromes used by domestic non-scheduled aircraft operators and there are currently no certified or licensed heliports.

1.6.2 The airspace of Namibia is classified into Class A, C, D, E, G. The service provided by the ANSP includes area surveillance, approach surveillance, and flight information services from the Area Control Centre at Eros Airport, and tower control at six of the eight main airports (FYWE, FYWH, FYWB, FYLZ, FYOA and FYKM). All of the eight main airports have RNP approaches along with ground-based approaches at two of the airports. The NCAA oversights the ANSP, the NMS, and the SAR service providers, which are all government departments.

1.6.3 There are currently 19 air operator certificates (AOCs) issued by Namibia, seven of which are issued to operators conducting international commercial air transport operations, including one scheduled airline. Namibia also has four operators which operate domestic air taxi services, primarily on piston engine aircraft, as well as six helicopter operators, and two balloon operators.

1.6.4 Namibia has four certified aviation training organisations (ATOs) operating conventional type certified and non-type certified aircraft, and one remote piloted aircraft systems (RPAS) ATO.

1.6.5 Namibia has five aviation recreational organisations covering operators of non-type certified aircraft (two), gliders, paragliders (two), and parachutes.

1.6.6 Namibia has nine certified aviation maintenance organisations (AMOs) based in Namibia, and 22 foreign AMOs which are oversighted by NCAA.

1.6.7 There were 29339 movements in Namibia over the period of 1 January 2021 to 31st December 2021. The industry has been significantly affected by the international pandemic; it is anticipated if the global aviation sector recovers this should increase.

1.6.8 Common challenges in Namibia include: the aging fleet of piston aircraft used for domestic and international air charters, mixed fleet flying, mixed traffic including a mix of high performance, low performance, and training, non-type certified traffic, aviation recreational activities, topography, meteorology, infrastructure, and socio-political issues.

1.7 Safety Issues, Goals, and Targets

1.7.1 The States safety issues, goals, and targets have been developed using safety data collated from the national safety reporting systems (mandatory, voluntary, and hazard reports), FDAP reporting, the safety oversight surveillance system, and the USOAP online framework, and investigation reports. The full details of Namibia's safety objectives are provided in section 2, safety issues, goals, indicators, and targets are provided in section 3.

SECTION 2. PURPOSE AND OBJECTIVES

2.1 Purpose of Namibia's National Aviation Safety Plan

2.1.1 The NASP is the master planning document containing the strategic direction of Namibia for the management of aviation safety for a period from 2023 to 2025. This plan lists national safety issues, sets national aviation safety goals, and targets, and presents a series of safety enhancement initiatives (SEIs) to address identified safety deficiencies and achieve the national safety goals and targets.

2.1.2 The NCAA Business and Financial Plan addresses all aspects of air transport at the State level, with the objective of providing a clear and comprehensive planning and implementation strategy for the future development of the entire civil aviation sector. The NASP contains in-depth information specific to aviation safety aspects that are referenced in NCAA Business and Financial Plan.

2.1.3 The NASP has been developed using international safety goals and targets and HRCs from the GASP (www.icao.int/gasp) as well as information from the NCAA's SDCPS. These are highlighted in the text, where applicable. The SEIs listed in the NASP support the improvement of safety at the wider regional and international levels and include several actions to address specific operational safety risks. Cross-references to the GASP are provided where relevant.

2.1.4 The documents used in the creation of the NASP are listed in the section 0.2 REFERENCES contained in Section 0.2 on Page 4.

2.2 Objectives

2.2.0.1 Given the fast pace of change in aviation, Namibia will mainly focus on its objectives for 2023 to 2025, which is the period of the NASP. Namibia has also set longer term objectives for 2026-2029, and for 2030 and beyond. The indicators, targets, and alert levels will be calculated and updated annually.
Note: the references in the below table relate to the table in section 3.2.

2.2.0.2 When developing new regulations and requirements, NCAA will take into consideration that any regulatory change should be based on safety risk assessment rather than on prescriptive requirements that impose unnecessary costs on the industry. Risk profiling of the aviation industry of Namibia will continue with the implementation of effective national SDCPS in order to identify the specific risks of the sector and joint risk mitigation plans to manage aviation safety performance. Applying a risk-based approach, an analysis will be made of oversight policy, procedures, and capacity concerning any identified high-risk areas according to number of level 1 and level 2 findings.

2.2.1 Short Term and Immediate Objectives (planned for 2023-2025)

2.2.1.1 The short term and immediate objectives of the NASP relate to the goals, targets, and indicators outlined in section 3.2 which are applicable to this version of the NASP.

1.	Maintain a decreasing trend in the overall national accident rate (Goal 1, target 1.1, indicator 1.1.1);
2.	Maintain a decreasing trend in the overall national fatal accident rate (Goal 1, target 1.2, indicator 1.2.1);
3.	Maintain a nil rate in the overall national accident rate for commercial aircraft over 5,700kg (Goal 1, target 1.3, indicator 1.3.1);
4.	Maintain a decreasing trend in the mandatory occurrence report rate for (Goal 1, indicator 1.4, target 1.4.1;
5.	Maintain an increasing trend in the overall voluntary incident report rate (Goal 1, target 1.5, indicator 1.5.1);
6.	Maintain an increasing trend in the overall hazard report rate (Goal 1, target 1.6, indicator 1.6.1)
7.	Maintain a decreasing trend in the high-risk category occurrences selected by the State (Goal 1, target 1.7, indicator 1.7.1 to 1.7.8);
8.	Implementation of the requirements detailed in Section 3.3 and Appendix A concerning aircraft upset prevention and recovery training (UPRT) for AOC and ATO holders; (Goal 1, target 1.7, indicator 1.7.6);
9.	Implement the requirements detailed in Section 3.3 and Appendix A concerning ACAS II, Version 7.1 requirements, and training for Part 121 AOC holders (Goal 1, target 1.7, indicator 1.7.2);
10.	Implement the requirements detailed in Section 3.3 and Appendix A concerning GPWS and CFIT awareness, and stablised approach training for AOC and ATO holders (Goal 1, target 1.7, indicator 1.7.3).
	***
11.	Improve effective implementation (EI) across all sectors (Goal 2, target 2.1, indicator 2.1.1);
12.	Improve the rate of self-assessment completed (Goal 2, target 2.2, indicator 2.2.1);
13.	Improve the percentage of CAPs completed (Goal 2, target 2.3, indicator 2.3.1);
14.	Improve the compliance with ICAO SARPs (Goal 2, target 2.4, indicator 2.4.1).
	***
15.	Complete the SSP Implementation Plan; (Goal 3, target 3.1, indicators 3.1.1 and 3.1.2);
16.	Continually improve the SSP Implementation Assessment (SSP-IA) level. (Goal 3, target 3.2, indicators 3.2.1-3.2.3);
17.	Improve the number of service providers with an approved SMS (Goal 3, target 3.3, indicators 3.3.1, 3.3.2);
18.	Improve the number of safety meetings held against those planned (Goal 3, target 3.4, indicators 3.4.1, 3.4.2).
	***

19.	To increase regional co-operation Namibia will continue and increase two-way communication with the ICAO East and South African Office, AFRAA, SASO, AFCAC, APIRG, RASG-AFI, and the regional and local branches of IATA, IFALPA, IFATCA, AOPA, CANSO and the regional civil aviation authorities to improve aviation safety management approaches (Goal 4, target 4.1, indicator 4.1.1);
20.	Increased number of regional workshops, conferences, and trainings attended, increase participation in regional working groups; (Goal 4, target 4.2, indicator 4.2.1).
	***
21.	Increase number of industry safety groups including inter-operator safety groups, SSP Steering Committee, Runway Safety Team, ANSP-Operator safety groups, and other applicable groups. (Goal 5, target 5.1, indicator 5.1.1);
22.	Increase participation in industry safety programmes (Goal 5, target 5.2, indicator 5.2.1);
23.	Use of industry programmes to complement globally harmonized safety performance indicators, including industry and NCAA led safety training initiatives in the seven critical HRCs (see specifics detailed in section 3.2-3.3 and Appendix C).
	***
24.	Increase implementation of core airport and air navigation infrastructure (Goal 6, target 6.1, indicator 6.1.1);
25.	Complete implementation of ICAO Basic Building Block (BBB) Block 0 upgrade (Goal 6, target 6.2, indicator 6.2.2).

2.2.2 Medium Term Objectives (planned for 2026-2029)

2.2.2.1 Additional to the ongoing objectives listed above, Namibia has the following medium-term objectives:

1.	Maintain an effective SSP, as referenced by meeting targets established in the NASP, SSP-IAs, and internal quality processes;
2.	Namibia has a safety oversight index greater than one. As a State we therefore aim to provide assistance where neighbouring countries may have lower indexes, while maintaining our own level of safety;
3.	Maintain an effective SSP as confirmed by performance of targets and metrics in the SDCPS (Goal 1 and Appendix C);
4.	Ensure continuous improvement of the SSP under the internal quality review system in accordance with TGM Part 10;
5.	Increase implementation of recommendations from serious incident and accident safety reports;
6.	In accordance with the ICAO Global air navigation plan, Namibia will extend the use of PBN (such as performance-based navigation and ground-based augmentation systems);

7.	Ensure effective implementation of the requirements set by the authority regarding the flight data analysis programme (FDAP), including regular reporting to the authority, where a flight data recorder is required by NAMCAR 91.04.13, 121.05.12, 127.05.13, or 135.05.12;
8.	Promotion by NCAA of voluntary implementation of a flight data analysis programme (FDAP) for corporate aviation and training operators operating aircraft over 5 700 kg;
9.	Improve the implementation of GNSS-based navigation in NAMCAR Part 135 operations;
10.	Availability of the appropriate infrastructure to support safe operations;
11.	Improvement of services that are essential for air navigation and aerodromes;
12.	Establishment of local runway safety teams at all the high traffic airports;
13.	Implementation of runway stop bars at the FYWE and FYWH airports;
14.	Publication of various training and educational material highlighting the high-risk categories of accidents and risk management measures;
15.	Conduct workshops with the industry on relevant topics to the NASP, such as CFIT and LOC-I;
16.	Activate the following safety coordination groups to address the main aviation sectors individually: a. Commercial aviation group – b. Flight training school group; c. Recreational aviation group (including general aviation); d. Airworthiness group; e. Air navigation services (ANS) group; and f. Aerodromes (AGA) group.
17.	Reduce accident rates and numbers of fatalities by 10% per annum in all aviation segments;
18.	Increase effective implementation (EI) to 85 %;
19.	Increase levels of skills and qualifications for technical personnel including On the Job Training (OJT), theoretical and practical courses, and attendance of conferences and workshops;
20.	Strengthen effective implementation of the civil aviation safety oversight in the six safety divisions of NCAA;
21.	Increase the number of manned positions in the six safety divisions of NCAA;
22.	Increase compliance with the ICAO SARPs.

2.2.3 Long Term Objectives (2030 onwards)

2.2.3.1 The following objectives are planned for the ultra-long-term plan.

1.	Increase effective implementation to 95% by 2030;
2.	Reduce accident rates and numbers by 10% per annum in all aviation segments;
3.	Achieve a consecutive 3-year period without fatalities in aircraft accidents over 5700kgs by 2030 and maintain zero fatalities thereafter;
4.	Increase regional collaboration;
5.	Increase use of industry programmes such as LOSA, BARS, and IOSA;
6.	Complete and maintain the availability of the appropriate infrastructure to support safe operations.

SECTION 3. NAMIBIA'S STRATEGIC APPROACH TO MANAGING AVIATION SAFETY

3.0.1 The NASP presents the SEIs that were developed based on the organizational challenges (ORG) and operational safety risks (OPS), as presented in the ICAO global aviation safety roadmap, State-specific issues identified by Namibia's safety data collection and processing systems and safety risk management process, and the work undertaken by service providers in the development and implementation of their safety management systems (SMS). This plan is developed and maintained by NCAA, in coordination with all stakeholders (recreational aviation, industry, service providers, governmental and non-governmental aviation organisations, state owned enterprises, Ministry of Defence, and the Ministry of Works and Transport). It is essential that a collaborative approach is utilised to identify issues and implement SEIs to mitigate risks.

3.0.2 The safety figures in the NASP are updated annually while the whole plan will be reviewed at least every three years. The first review of the plan will be carried out once the 2023 GASP is released to align with global standards. The plan's updates are the responsibility of the NCAA SPQ department, while the finished product will be reviewed and accepted by the SSP SteerCom.

3.1 Strategic National Safety Issues

3.1.1 Key safety issues have been extracted from the information provided by the safety data collection and processing system, USOAP OLF, safety oversight functions, and service providers' SMS activities.

3.1.2 Through this process the NASP addresses seven HRC operational issues and three organisational issues.

3.1.3 Key National Safety Issues Operational (HRCs):

1. Airborne Conflict (Air Proximity/Near Mid-air collisions) – LOS/MAC;
2. Runway Incursions – RI;
3. Wildlife Strikes;
4. Loss of Control in flight – LOC-I;
5. Controlled Flight into Terrain CFIT;
6. Runway Excursions – RE;
7. Maintenance and Technical issues.

3.1.4 Key National Safety Issues Organisational:

8. Effective implementation of safety oversight and compliance;
9. Effective Implementation of SSP;
10. Safe and efficient provision of air navigation and airport services.

3.1.5 To address the issues listed above and enhance aviation safety at the national level, the NASP contains 6 goals, 22 targets, 7 OPS SEIs that match the 7 HRCs above, and 12 ORG SEIs that address NSIs 8, 9, and 10 above.

3.2 Safety Goals and Targets

3.2.1 The NASP includes the following national safety goals and targets, for the management of aviation safety, as well as a series of indicators to monitor the progress made towards their achievement. They are tied to the goals, targets and indicators listed in the GASP. Expanded national safety targets and indicators are included in section 3.3 and the metric indicators are included in Appendix C.

Goal	***Target***	***Indicators***	***Link to GASP and RASP***
Goal 1. *Achieve a continuous reduction of operational safety risk**	1.1 Reduce the year-on-year accident rate by 10%.	1.1.1 *Number of accidents occurring in the State per 1000 departures.*	*This goal is directly linked to Goal 1 and Target 1.1 of the GASP.* *This target is linked to AST[1] Target 1.*
	1.2 Reduce fatal accidents to zero.	1.2.1 Number of fatal accidents in the State per annum.	
	1.3 Maintain a zero-accident rate for commercial operations of aircraft over 5 700kgs.	1.1.3 Number of accidents occurring in the State to aircraft over 5 700 kg involved in commercial operations per 1000 departures.	
	1.4 Reduce the year-on-year mandatory reporting rate by 10%.	1.2.1 Number of mandatory occurrences per 1000 departures.	
	1.5 Increase the year-on-year voluntary reporting rate by 10%	1.2.1 Number of voluntary occurrences per 1000 departures.	
	1.6 Increase the year-on-year hazard reporting rate by 10%.	1.3.1 Number of hazards per 1000 departures.	
	1.7 Decrease the year-on-year rate of high-risk category (HRC) occurrences by 10%.	1.7.1 Combined rate of occurrences for LOC-I, CFIT, MAC, Runway Incursions and Excursions, Wildlife strikes, and Technical/Maintenance issues (SO 1-7) per 1000 movements. 1.7.2 Rate of LOS/MAC events per 1000 movements. 1.7.3 Rate of CFIT events per 1000 movements.	

Goal	***Target***	***Indicators***	***Link to GASP and RASP***
		1.7.4 Rate of runway excursions per 1000 movements. 1.7.5 Rate of wildlife events per 1000 movements. 1.7.6 Rate of LOC-I events per 1000 movements. 1.7.7 Rate of runway incursions per 1000 movements. 1.7.8 Rate of maintenance and/or technical events per 1000 movements.	
Goal 2. *Strengthen the State's safety oversight capabilities*	2.1 Achieve *a significant increase in effective implementation (EI) score with each audit cycle, with the aim of achieving the following EI scores:* i by 2023 – 75 per cent ii by 2026 – 85 per cent iii by 2030 – 95 per cent	2.1.1 Overall *EI score for the State.*	*This goal is linked to Goal 2 and Target 2.1 of the GASP.* *This target is linked to AST[1] Target 5.*
	2.2 Achieve 100% completion of self-assessment	2.2.1 Percentage *of self-assessment completed.*	
	2.3 Achieve a 10% increase per annum of completed CAPs.	2.3.1 Percentage *of completed corrective action plans (CAPs).*	
	2.4 Achieve a 10% increase per annum of compliance with SARPs.	2.4.1 Percentage of compliance with SARPS.	
	2.5 Increase level of certification of service providers.	2.5.1 Percentage of international airports certified.	*This target is linked to AST[1] Target 7.*
Goal 3: *Implement and maintain an effective State*	3.1 Achieve the following percentage completion of the SSP Implementation plan.	3.1.1 Percentage completion of SSP Implementation plan complete.	*This goal is directly linked to Goal 3 and Target*

Goal	***Target***	***Indicators***	***Link to GASP and RASP***
safety programme (SSP).	I. Phase one completed by the end of 2023. II. 100% complete by the end of 2024.		*3.1 and 3.2 of the GASP.* *This target is linked to AST[1] Target 6.*
	3.2 Achieve the following ratings in SSP-IAs I. By the end of 2023 all items at a minimum level of not present but being worked on. II. By the end of 2025 achieve a level of present in all items. III. By the end of 2028 achieve a level present and effective in all items.	3.2.1 Percentage of not present but being worked on in from the SSP IAs. 3.2.2 Percentage of SSP IAs marked "present". 3.2.3 Percentage of SSP IAs marked "present and effective".	
	3.3 Achieve 100% of service providers and complex general aviation operators with an approved SMS by the end of 2023.	3.3.1 Percentage of service providers and complex general aviation operators with an implemented SMS. 3.3.2 Percentage of service providers and complex general aviation operators with an approved SMS.	
	3.4 Achieve 100% completion of scheduled SSP meetings.	3.4.1 Percentage of SSP SteerCom meetings completed. 3.4.2 Percentage of Safety Working Group meetings completed.	
Goal 4. *Increase collaboration at the regional level*	4.1 Contribute information on safety risks, including SSP safety performance indicators (SPIs), to their respective regional aviation safety group (RASGs).	4.1.1 Number of safety information communications to and from the RASG.	*This goal is directly linked to Goal 4 and Target 4.2 of the GASP.*
	4.2 Participate in regional groups and initiatives.	4.2.1 Number of regional and global event attendance (physically or virtually).	

Goal	***Target***	***Indicators***	***Link to GASP and RASP***
Goal *5* *Increase the level of participation by service providers in industry safety initiatives*	5.1 increased number of industry safety groups.	5.1.1 Number of industry safety groups.	*This goal is linked to Goal 5 of the GASP.*
	5.2 Ensure all airlines have IOSA certification.	5.2.1 % of airlines with IOSA certification.	*This target is linked to AST[1] Target 8.*
Goal 6 *Ensure the appropriate infrastructure is available to support safe operations*	6.1 Achieve a 15% increase in implementation of the air navigation and airport core infrastructure.	6.1.1 Percentage implementation of the air navigation and airport core infrastructure elements.	*This goal is directly linked to Goal 6 and Target 6.1 of the GASP This target is linked to AST[1] Target 8.*
	6.2 Fully implement ICAO Basic Building Block 0.	6.2.1 Percentage of ICAO Basic Building Block (BBB) Block 0 implementation.	

[1]Abuja Safety Targets established in the Abuja Safety Declaration, revised 2017

3.3. Key Safety Risks and Mitigation Measures

3.3.1 Goal one of the NSSP covers the first seven key high-risk categories of safety issues identified and has been unpacked into the leading and lagging indicators, including the high severity low probability event which is targeted for reduction, the low severity high probability precursors or lagging indicators, and the proactive leading indicators.

Key Operational Safety Risks Related to Goal 1 and HRCs			
No.	**High Severity, Low Consequence to be mitigated**	**Precursors / Lagging Indicators (Low Severity, High Probability)**	**Leading Indicators**
1.7.2	Reduce the risk of airborne conflict, loss of separation, and midair collision events.	• Air-proximity events. • Events of non-compliance or mis-compliance with ATC instruction • TCAS RA events. • Communication errors.	• Training in TCAS procedures induction. • Training in TCAS procedures recurrent. • TCAS SOPs.

		• Air traffic service failure. • Incorrect ATC Instructions.	• Traffic avoidance workshop. • ATC recurrent training.
No.	**High Severity, Low Consequence to be mitigated**	**Precursors / Lagging Indicators (Low Severity, High Probability)**	**Leading Indicators**
1.7.3	Reduce the risk of CFIT events.	• GPWS Events. • Descent below MSA without visual reference. • Loss of terrain clearance. • Loss of positional awareness by ATC or aircraft.	• CFIT training induction. • CFIT training recurrent. • CFIT awareness in SOPs. • Recommended: one pilot maintains terrain on display (where available) during approach and climb out. • Use of monitored approach method for poor weather and hazardous approaches. • CDFA approach method for non-precision approaches.
1.7.4	Reduce the number of runway excursions.	• Unstable approach without go-around. • Near runway excursion.	• Stable approach training induction. • Stable approach training recurrent. • Company policy that emphasizes the need for go around without penalising. • Company culture of go-around mentality. • Stable approach SOP. • Stabilised approach criteria.
1.7.5	Reduce the number of wildlife strikes resulting in damage	• Bird Strike. • Wildlife strike.	• Airport Wildlife Prevention Programmes.
No.	**High Severity, Low Consequence to be mitigated**	**Precursors / Lagging Indicators (Low Severity, High Probability)**	**Leading Indicators**

		• Runway incursions by wildlife. • Dead wildlife found on runway.	• Maintaining grass cutting. • Scaring and Hazing.
1.7.6	Reduce the number of loss of control events and precursor events.	• Unusual attitude event. • Balked Landing event.	• UPRT training induction. • UPRT training recurrent.
1.7.7	Reduce the number of runway incursions.	• Runway incursions by aircraft. • Runway incursions by vehicles. • Loss of positional awareness by ATC or aircraft. • Ramp incident.	• Runway awareness training for crew. • Runway awareness training for airport drivers.
1.7.8	Improve the airworthiness of Namibian registered passenger carrying aircraft (deficient maintenance).	• IFTB due maintenance. • Systems failure. • Engine failure (excluding bird strike). • Engine fault. • Maintenance errors.	• Preventative maintenance programmes. • Effective SMS implementation and maintenance in AMOs. • QMS performance in AMOs.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3.3.2 Further to the safety indicators and targets Namibia has developed key Safety Enhancement Initiatives based on these targets. The full list of the SEIs is presented in Appendix A – Operational Roadmap and Appendix B – Organisational Roadmap to the NASP. The operational "OPS" SEIs directly address the safety performance indicators (SPIs) 1.7.2 to 1.7.8 of Goal 1 and high-risk categories (HRCs) 1 to 7 referred to in paragraph 3.1.3. The organisational "ORG" SEIs are developed to address NSI 8 to 10, referred to in paragraph 3.1.4, and addressed in goal 2, 3, and 6, with the associated indicators. Together the ORG and OPS SEIs act to contribute to the overall national safety improvement strategy.

3.4 Emerging Safety Issues

3.4.1 The NASP also addresses emerging issues. Emerging issues include concepts of operations, technologies, public policies, business models or ideas that might impact safety in the future, for which insufficient data exists to complete typical data-driven analysis. It is important that Namibia remain vigilant on emerging issues to identify potential operational safety risks, collect relevant data, and proactively develop mitigations to address them. The NASP addresses the following emerging issues, which were identified from service provider surveys, for further analysis:

1. RPAS Operations in the vicinity of aerodromes;
2. Use of Non-Type Certified Aircraft in Commercial Operations;
3. Increase in aviation recreational activities that may conflict with commercial traffic.

3.4.2 Emerging issues will be monitored via the safety data collection and processing system to determine any trends and needs for action for the updated NASP.

SECTION 4. SAFETY OVERSIGHT

4.0.1 The eight critical elements (CEs) of a safety oversight system are defined by ICAO. Namibia is committed to the effective implementation of these eight CEs, as part of its overall safety oversight responsibilities, which emphasize Namibia's commitment to safety in respect of its aviation activities. The eight CEs are presented in Figure 1 below.

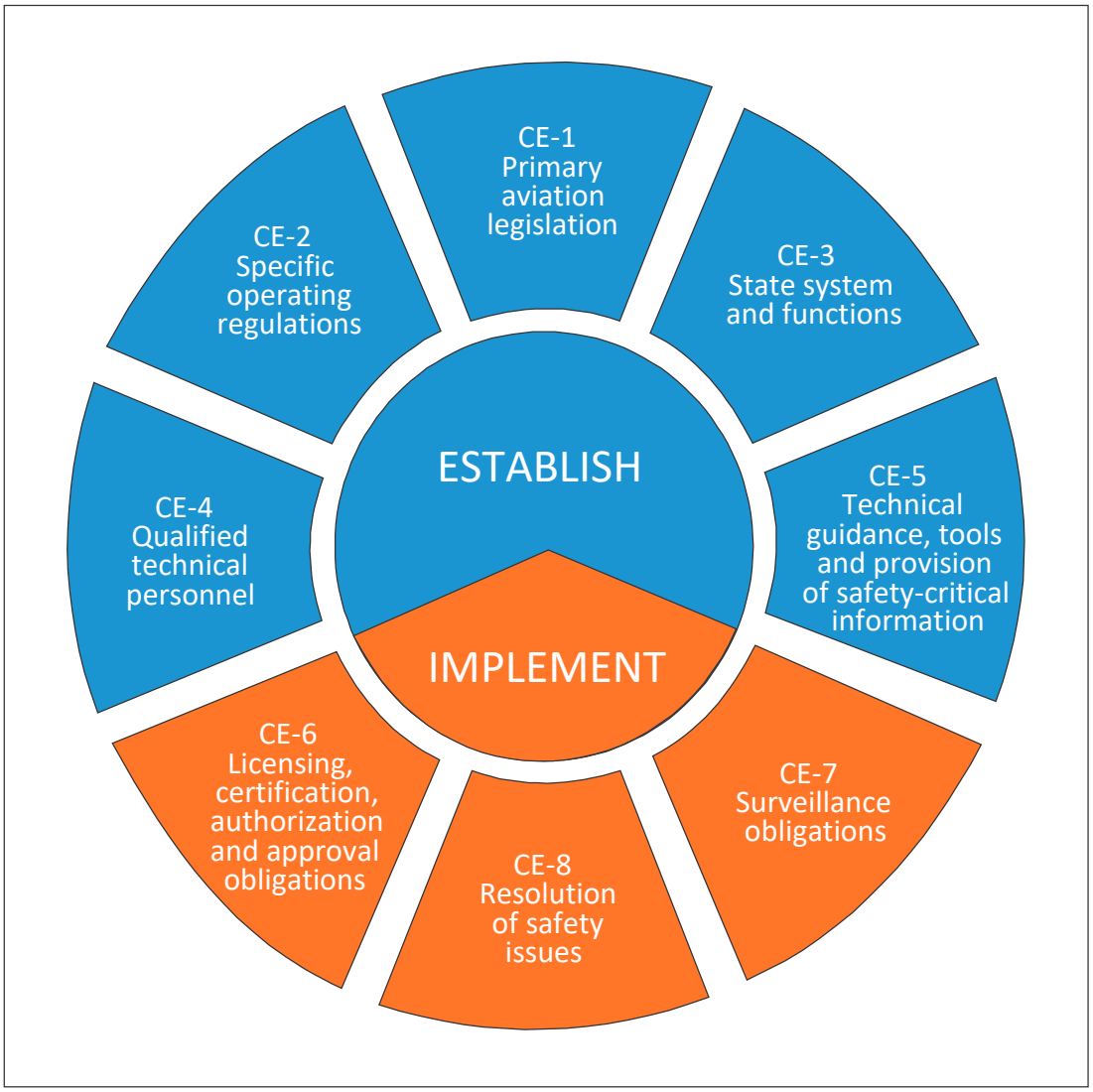
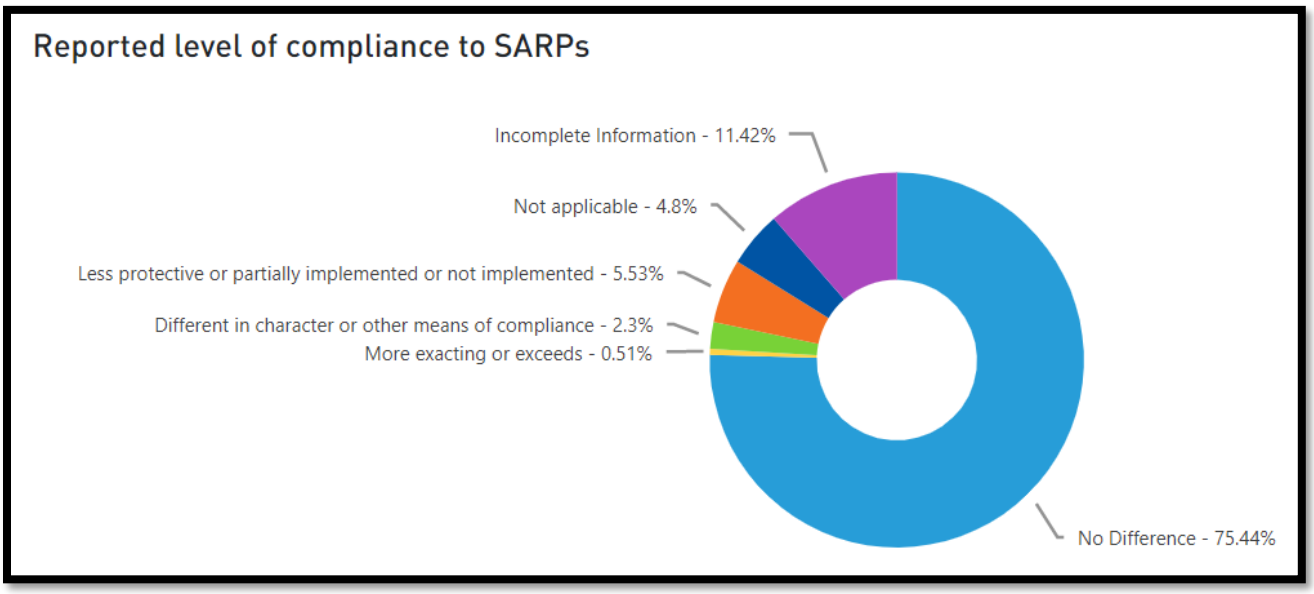


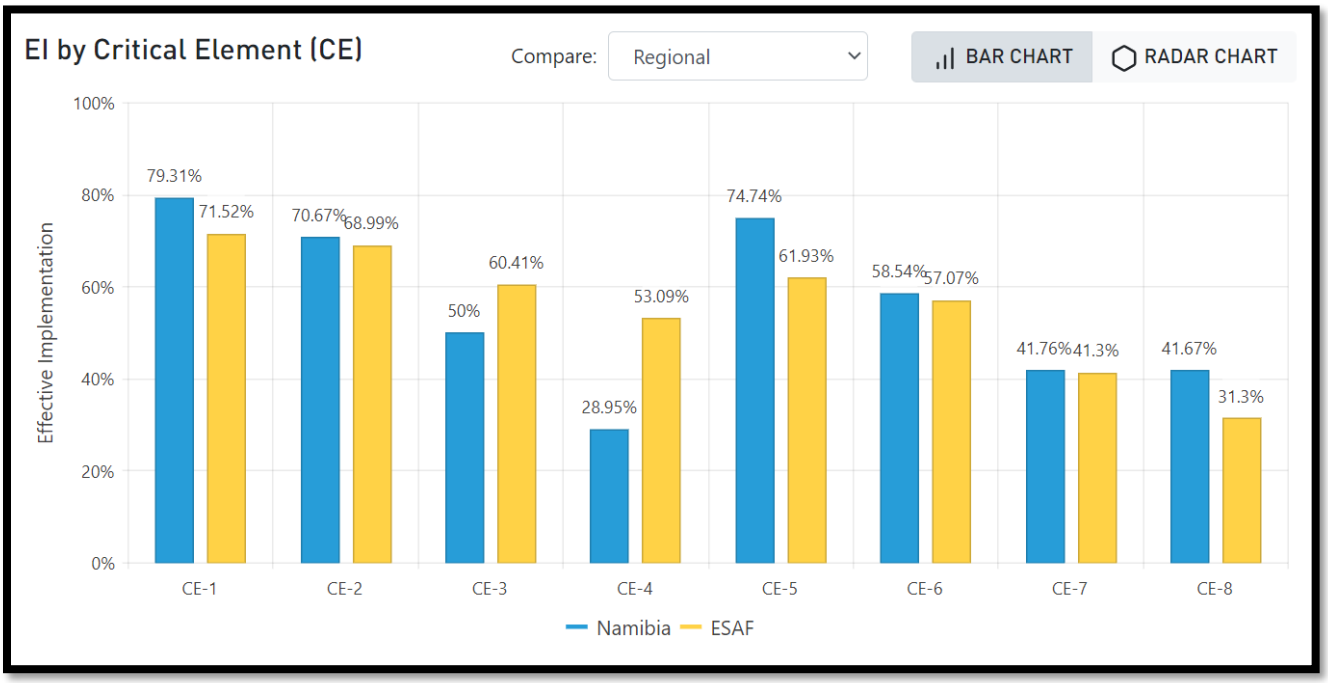
Figure 1. Critical elements of a State's safety oversight system

4.0.2 The latest ICAO activities, which aim to measure the effective implementation of the eight CEs of Namibia's safety oversight system, as part of the ICAO Universal Safety Oversight Audit Programme (USOAP), have resulted in the following scores:

Overall, EI score							
57.39%							
Reported level of compliance with SARPS							
83.87%							
EI score by CE							
CE-1	**CE-2**	**CE-3**	**CE-4**	**CE-5**	**CE-6**	**CE-7**	**CE-8**
79%	71%	50%	29%	75%	58%	42%	42%
EI score by audit area							
LEG	**ORG**	**PEL**	**OPS**	**AIR**	**AIG**	**ANS**	**AGA**
70%	25%	64%	61%	72%	70%	30%	61 %

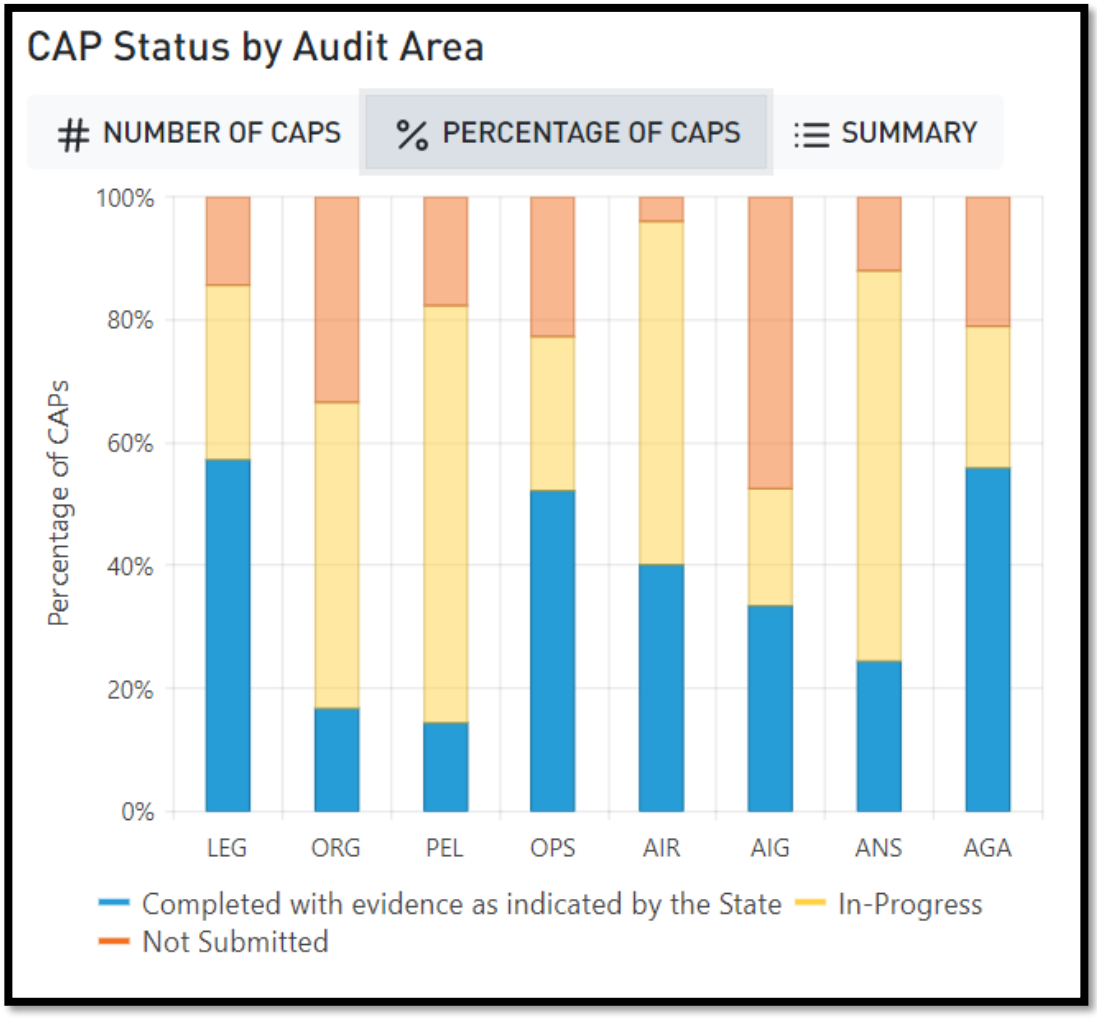


Comparison of Effective Implementation against regional averages:



4.0.3 The status of self-assessment and corrective action plans provides an analysis of the current state of development of the safety oversight system. The results of self-assessment and CAPs are as follows:

Status of Self-Assessment							
LEG	**ORG**	**PEL**	**OPS**	**AIR**	**AIG**	**ANS**	**AGA**
95%	92%	100%	57%	100%	100%	100%	100%
Status of CAPs: % completed, % in progress, % not submitted							
LEG	**ORG**	**PEL**	**OPS**	**AIR**	**AIG**	**ANS**	**AGA**
57%	14%	18%	82%	43%	70%	3%	78%
28%	71%	82%	18%	57%	17%	90%	18%
14%	14%	0%	0%	0%	13&	1%	4%



4.0.4 The safety oversight index (SOI) of a State is an ICAO indicator of its safety oversight capabilities. Every State audited by ICAO has an SOI. It is a number greater than zero, where

"1" represents a level at which the safety oversight capabilities of a State would indicate the minimum expected capabilities considering the number of departures as an indication of the size of that State's aviation system. The calculations conducted by ICAO of Namibia's SOI have resulted in the following scores:

Overall, SOI score	*Score in the area of Operations*	*Score in the area of Air Navigation*	*Score in the area of Support Functions*
1.21	1.09	1.3	1.25

4.0.5 Namibia has effected the minimum expected safety oversight capability; however, Namibia strives to continually improve on this figure through the initiatives of the SSP and this NASP.

4.0.6 The SEIs in this plan are implemented through Namibia's existing safety oversight capabilities and the service providers' SMS. SEIs derived from the ICAO global aviation safety roadmap were identified to achieve the national safety goals and targets presented in the NASP. Some of the national SEIs are linked to overarching SEIs at the regional and international levels and help to enhance aviation safety globally. The full list of the SEIs is presented in Appendix A and Appendix B to the NASP.

4.0.7 The operational SEIs are linked to the seven key high-risk categories of events. The organizational SEIs are linked to Namibia's individual organizational challenges, selected to match the needs of the NCAA, and based on the USOAP scores contained in this chapter.

SECTION 5. MONITORING PERFORMANCE AND IMPLEMENTATION

5.0.1 Namibia will continuously monitor the implementation of the SEIs listed in the NASP and measure safety performance of the national civil aviation system through performance targets set in section 3, to ensure the intended results are achieved, using the mechanisms presented in the appendix to this plan.

5.0.2 In addition to the above, Namibia will review the NASP figures annually and update every three years or earlier, if required, to keep the identified operational safety risks, safety issues, and selected SEIs updated and relevant. The NCAA will review the safety performance of the initiatives listed in the NASP on a monthly basis to ensure the achievement of national safety goals and targets. Namibia will seek the support of the ICAO regional office, the African and Indian Ocean regional aviation safety group (AFI-RASG), and industry to ensure the timely implementation of SEIs to address safety deficiencies and mitigate risks. Through close monitoring of the SEIs, Namibia will make adjustments to the NASP and its initiatives, if needed, and update the NASP accordingly.

5.0.3 Namibia will use the indicators listed in Section 3 and Appendix C of this plan to measure safety performance of the civil aviation system and monitor each national safety target. A safety status report will be published in the NCAA annual report to provide stakeholders with relevant up-to-date information on the progress made in achieving the national safety goals and targets, as well as the implementation status of the SEIs. Monthly safety reports detailing any important information relating to the SPIs will be published on the NCAA website.

5.0.4 In the event that the national safety goals and targets are not met, the root causes will be analysed, and a full hazard identification and risk mitigation (HIRM) process will be conducted. If Namibia identifies critical operational safety risks, reasonable measures will be taken to mitigate them as soon as practicable, inclusive of an unscheduled revision of the NASP.

5.0.5 Namibia has adopted a standardized approach to provide information at the regional level, for reporting to the RASG-AFI. Namibia uses standard electronic means, including participation in virtual events. Where and when necessary, travel to regional workshops and conferences is affected. This allows the regional safety groups to receive information and assess operational safety risks using common methodologies.

-END-

Any questions regarding the NASP and its initiatives, and further requests for information, may be addressed to the following:

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Ph +264 83 235 2468 or +264 83 235 2511
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SAFETY ENHANCEMENT INITIATIVES: OPERATIONAL SAFETY RISKS

The operational safety enhancement initiatives (SEIs) address the 7 key high-risk categories (HRCs) identified in the plan as follows:

HRC 1: Mid Air Collision (MAC) **SEI-OPS 1** Mitigate the contributing factors to MAC events *This is linked to SEI-OPS-3 of the GASP* **Addresses Goal 1, Target 1.7.2**	1. Implement the following MAC safety actions: a) Promote guidance and regulations to ensure applicable aircraft are equipped with ACAS II vs 7.1, in accordance with Annex 6. b) Promote adherence to ACAS warning procedures. c) Promote the improvement of ATC systems, procedures, and tools to enhance conflict management. d) Promote the improvement of communications systems and procedures, such as controller-pilot datalink. e) Implement training on ACAS II Version 7.1.
	2. Identify additional contributing factors, for example: a) Traffic conditions – traffic density, complexity, mixture of aircraft types and capabilities, etc. b) ATC performance related to workload, competence, teamwork, procedures, commitment, etc., as well as the influence of ANSPs' safety management. c) Flight crew training and corporate culture related to workload, competence, teamwork, procedures, commitment etc., and the influence of aircraft operator's safety management. d) ATC systems – flight data processing, communication, STCA, etc., as well as the interaction related to the human operator and the aircraft systems, and the procurement policy of the ANSP. e) Aircraft equipment – autopilots, transponders, and ACAS, but also aircraft performance (e.g., rate-of-climb) and their physical size. f) Navigation infrastructure – both coverage and quality. g) Surveillance -both coverage and quality. h) Flight plan processing – efficiency and reliability of flight plan submission, approval, and distribution. i) Airspace – complexity of airspace design, route layout, extent of controlled or uncontrolled airspace, proximity of military operational or training areas, etc. j) Flight in adverse environmental conditions that may influence conflict management and collision avoidance.

	3. Validate the effectiveness of the SEI using data provided by MORs, VORs, and accident/incident investigations (apply safety management methodologies).					
	4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for MAC.					
	5. Conduct continuous evaluation of the performance of SEIs.					
	Timeline	***Responsible entities***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
	2024	*NCAA OPS NCAA PEL NCAA ANS ANSP*	*NCAA AOC Holders DAAII ATOs Pilot associations*	*Lagging: Number of LOS events and TCAS events Leading: number of pilots receiving training Number of organisations with approved training program*	*Major*	*Number of Occurrence reports Training files*
						

HRC 2
Controlled Flight Into Terrain

SEI-OPS 2
Mitigate the contributing factors to CFIT events

This is linked to SEI-OPS-1 of the GASP

Addresses Goal 1, Target 1.7.3-

1. Implement the following CFIT safety actions:
   a) Ensure aircraft are equipped with terrain awareness and warning system (TAWS) in accordance with Annex 6;
   b) Promote the wider use of TAWS beyond the requirements of Annex 6;
   c) Issue a Safety Advisory to increase adherence to TAWS warning procedures;
   d) Promote greater awareness of approach risks;
   e) Encourage the implementation of continuous descent final approaches (CDFA);
   g) Ensure the timeliness of updates and accuracy of Electronic Terrain and Obstacle Data (eTOD);
   h) Promote the use of GPS-derived position data to feed TAWS;
   i) Ensure training is provided in TAWS by operators with systems installed; and
   j) Ensure all low-level agricultural operations are appropriately qualified and approved via revision of associated directive.

2. Validate the effectiveness of the ; safety enhancement initiative (SEI) presented in this safety plan through the analysis of mandatory occurrence reporting systems (MORs), voluntary occurrence reporting systems (VORs), flight data monitoring, and accident/incident investigations (apply safety management methodologies) along with the results of internal audits.

3. Identify and consider additional contributing factors:
a) Flight in adverse environmental conditions;
b) Approach design and documentation (e.g., approaches with vertical guidance (APV) or localizer performance with vertical guidance (LPV) approaches) ;
c) Phraseology used (standard vs. non-standard); and
d) Pilot fatigue and disorientation.

4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for CFIT.

5. Conduct continuous evaluations of the performance of the SEIs.

Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
2022-2024	*NCAA OPS NCAA PEL*	*NCAA AOC Holders DAAII*	*Lagging: Number of CFIT events and CFIT precursor events*	*Major*	*Number of Occurrence reports Training file*

			ATOs *Pilot associations*	*Leading: number of pilots receiving training* *Number of organisations with approved training program*		
	 					

HRC 3 Runway Excursions **SEI-OPS-3** Mitigate contributing factors to RE accidents and incidents *This is linked to SEI-OPS-4 of the GASP*	1. Implement the following RE safety actions: a) Ensure the establishment and implementation of a State runway safety programme and runway safety teams; b) Promote the establishment of policy and training on rejected landings, go-arounds, diversion, and crosswind and tailwind landings (up to the maximum manufacturer-demonstrated winds); c) Ensure effective and timely reporting of meteorological and aerodrome conditions (e.g., runway surface condition in accordance with the ICAO global reporting format in Annex 14, Volume I, braking action and revised declared distances); d) Certify aerodromes in accordance with ICAO Annex 14, Volume I as well as Doc 9981, PANS-Aerodrome; and f) Ensure that procedures to systematically reduce the rate of unstabilised approaches to runways are developed and used.
	2. Validate the effectiveness of the SEI through the analysis of MORs, VORs, and accident/incident investigations (apply safety management methodologies).
	3. Identify additional contributing factors, for example: a) Ineffective SOPs;

<table>
<tr><td rowspan="4">Addresses Goal 1, Target 1.7.4</td><td colspan="6">b) Failure to adhere to the appropriate SOPs;
c) Inadequate landing technique, i.e., long/floated/bounced/firm/off-centre/crabbed landing;
d) Inadequate approach procedures design; and
e) Inadequate regulatory oversight.</td></tr>
<tr><td colspan="6">4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for RE.</td></tr>
<tr><td colspan="6">5. Conduct continuous evaluations of the performance of the SEIs.</td></tr>
<tr><td colspan="6"><table>
<tr><th>Timeline</th><th>Responsible entity</th><th>Stakeholders</th><th>Metrics/Indicators</th><th>Priority</th><th>Monitoring Activity</th></tr>
<tr><td>2024</td><td>NAC
ANSP
NCAA</td><td>AOC Holders
Private and Corporate Operators
NAC</td><td>Lagging Indicators: Unstable approaches without go-around
Leading Indicators: Number of organisations with stable approach and go around training
Number of organisations with stable approach SOP</td><td>High</td><td>FDAP reports
Training files
SOP approval checklists</td></tr>
</table></td></tr>
<tr><td colspan="6">   </td></tr>
</table>

<table>
<tr><td rowspan="6">HRC 4
Impact with Wildlife

SEI-OPS-4
Mitigate the risks of impact with wildlife

Addresses Goal 1, Target 1.5.1-SO4</td><td colspan="6">1. Implement the following wildlife impact prevention safety actions:
a) Regular cutting of grass to prevent wildlife feeding grounds;
b) Management of refuse that may attract wildlife around the airport;
c) Scaring and hazing programmes;
d) Create Wildlife Control Committee with stakeholders; and
e) Consult wildlife experts (biologists, nature conservation) as to dispersal and displacement means.</td></tr>
<tr><td colspan="6">2. Validate the effectiveness of the safety enhancement initiatives (SEIs) presented in this safety plan through the analysis of mandatory occurrence reporting (MORs) and voluntary occurrence reporting systems (VORs) and accident/incident investigations (apply safety management methodologies).</td></tr>
<tr><td colspan="6">3. Identify and consider additional contributing factors:
a) Migratory habits;
b) Nesting habits and sources of shelter; and
c) Potential sources of food and water.</td></tr>
<tr><td colspan="6">4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for CFIT</td></tr>
<tr><td colspan="6">5. Conduct continuous evaluations of the performance of the SEIs</td></tr>
<tr><td>Timeline</td><td>Responsible entity</td><td>Stakeholders</td><td>Metrics/Indicators</td><td>Priority</td><td>Monitoring Activity</td></tr>
<tr><td>2024</td><td>NAC
NCAA</td><td>Industry
NAC
NCAA</td><td>Number of wildlife reports
Number of wildlife events</td><td>High</td><td>Occurrence reports</td></tr>
</table>

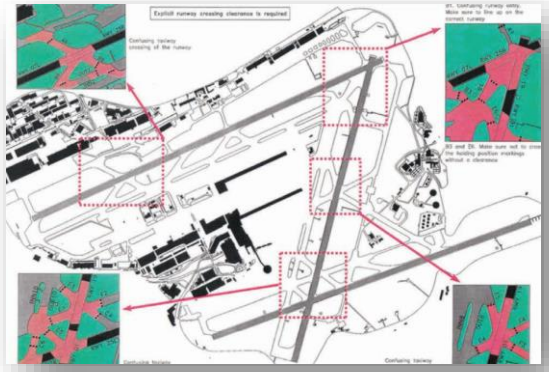
HRC 5 Loss of Control in Flight (LOC-I) **SEI-OPS 5** Mitigate contributing factors to LOC-I accidents and incidents **Addresses Goal 1, Target 1.5.1-SO5**	1. Implement the following LOC-I safety actions: a) Require upset prevention and recovery training in all full flight simulator type conversion and recurrent training programmes; b) Require more time devoted to training for the pilot monitoring role; c) Ensure emphasis of UPRT in primary instrument training through AOC and ATO holders; d) Ensure operators are monitoring LOC-I precursors in FDAP; and e) Ensure all low-level agricultural operations are appropriately qualified and approved via revision of associated directive.
	2. Validate the effectiveness of the SEIs in the industry through MORs and VORs systems and accident/incident investigations (apply safety management methodologies)
	3. Identify additional contributing factors, for example: a) Distraction; b) Adverse weather; c) Complacency; d) Inadequate standard operating procedures (SOPs) for effective flight management; e) Insufficient height above terrain for recovery; f) Lack of awareness of or competence in procedures for recovery from unusual aircraft attitudes; and g) Inappropriate flight control inputs in response to a sudden awareness of an abnormal bank angle.

<table>
<tr><td rowspan="4">This is linked to SEI-OPS-2 of the GASP</td><td colspan="6">4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for LOC-I, for example:
a) Increase the effectiveness of regulatory oversight of industry training programmes;
b) Improve regulations.</td></tr>
<tr><td colspan="6">5. Conduct continuous evaluations of the performance of the SEI</td></tr>
<tr><td>Timeline</td><td>Responsible entity</td><td>Stakeholders</td><td>Metrics/Indicators</td><td>Priority</td><td>Monitoring Activity</td></tr>
<tr><td>2022-2024</td><td>NCAA OPS
NCAA PEL</td><td>AOC Holders
ATOs
AOPA
NCAA Inspectors</td><td>Training programmes updated with UPRT
Number of pilots who have received UPRT
LOC-I precursor reports
Stick shaker activation in FDA data
LOC-I events</td><td>High</td><td>Surveillance of operator and ATO training activities
Occurrence reports</td></tr>
<tr><td colspan="6">  </td></tr>
<tr><td>HRC 6
Runway Incursions</td><td colspan="6">1. Implement the following RI safety actions:
a) Ensure the establishment and implementation of a State runway safety programme and runway safety teams
b) Promote the establishment of policy, procedures, and training that supports situational awareness for controllers, pilots, and airside vehicle drivers</td></tr>
</table>

<table>
<tr><td rowspan="6">SEI-OPS 6
Mitigate the conditions leading to runway incursions.

This is linked to SEI-OPS-5 of the GASP

Addresses Goal 1, Target 1.5.1-SO6</td><td colspan="6">c) Ensure effective use of suitable technologies to assist the improvement of situational awareness, such as improved resolution airport moving maps (AMM), electronic flight bags (EFBs), enhanced vision systems (EVS) and head-up displays (HUD), advanced-surface movement guidance and control systems (A-SMGCS), stop bars, and runway incursion warning systems (ARIWS) as available
d) Certify aerodromes in accordance with ICAO Annex 14, Volume I as well as Doc 9981, PANS-Aerodrome
e) Ensure the use of standard phraseologies in accordance with applicable State regulations and ICAO provisions (e.g., Doc 9432, Manual of Radiotelephony)
f) Ensure the identification and publication in the aeronautical information publication (AIP) of hot spots at aerodromes
g) Ensure that suitable strategies to remove hazards or mitigate risks associated with identified hot spots are developed and executed</td></tr>
<tr><td colspan="6">2. Validate the effectiveness of the SEIs through the analysis of MORs, VORs, and accident/incident investigations (apply safety management methodologies)</td></tr>
<tr><td colspan="6">3. Identify additional contributing factors, for example:
a) Procedures for operations in low visibility conditions
b) Complex or inadequate aerodrome design
c) Complexity of traffic (multiple simultaneous line-ups)
d) Conditional clearances
e) Simultaneous use of intersecting runways
f) Late issue of or late changes to departure clearances
g) Phraseology use (e.g., non-standard vs. Standard, call-sign confusion)
h) English language competence despite the introduction by ICAO of a system of validating competence in aviation English
i) Inadequate manoeuvring area
j) driver training and assessment programme</td></tr>
<tr><td colspan="6">4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for RI</td></tr>
<tr><td colspan="6">5. Conduct continuous evaluations of the performance of the SEIs</td></tr>
<tr><td>Timeline</td><td>Responsible entity</td><td>Stakeholders</td><td>• Metrics/Indicators</td><td>Priority</td><td>Monitoring Activity</td></tr>
</table>

	2024	*NAC ANSP NCAA*	*AOC Holders Private and Corporate Operators NAC*	*Lagging Indicators: Runway incursion events Leading Indicators: Runway awareness training*	*High*	*FDAP reports Training files SOP approval checklists*
						

HRC 7 Events caused by technical faults and deficient maintenance **SEI-OPS 7** Mitigate the conditions leading to in-flight	1. Implement the following maintenance safety actions: a) develop programmes to encourage voluntary reporting in technical work through a non-punitive approach b) Ensure SMS fully implemented in AMOs c) Encourage the following of quality maintenance procedures, including: i) Following published technical data or local instructions ii) Using authorized procedure and referenced technical data iii) Supervisors not accepting non-use of technical data or failure to follow maintenance instructions iv) Documenting maintenance properly in maintenance records, work package v) Adequate and appropriately recognised maintenance vi) Correctly installed hardware on an aircraft/engine vii) Performing ~~an~~ only authorized modifications to the aircraft viii) Conduct a tool inventory after completion of the task ix) Ensuring trained or certified to personnel only perform the task they are approved for

maintenance events **Addresses Goal 1, Target 1.5.1-SO7**	x) Ground support equipment and tooling properly positioned for the task d) Conduct a targeted campaign of oversight for continuing airworthiness management of ageing aircraft used in the small air transport (charter) sector					
	2. Validate the effectiveness of the SEIs through the analysis of MORs, VORs and accident/incident investigations (apply safety management methodologies)					
	3. Identify additional contributing factors, for example: a) Training in quality maintenance processes b) Human factors training for aircraft maintenance personnel					
	4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for technical and maintenance events					
	5. Conduct continuous evaluations of the performance of the SEIs					
	Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
	2024	*NCAA*	*AMOs*	*Reduction in maintenance events* *Reduction in critical findings on AMOs*	*High*	*Surveillance of AMOs*
						

Appendix B - ORGANISATIONAL ROADMAP
SAFETY ENHANCEMENT INITIAVES: ORGANISATIONAL SAFETY RISKS

<table>
<tr><td rowspan="7">SEI-ORG-1
Consistent implementation of ICAO SARPs at the national level

This is directly linked to SEI-ORG-1 of the GASP.

Addresses Goal 2, Target 2.1</td><td colspan="6">1. Work to address areas of potential significant safety concerns as a priority</td></tr>
<tr><td colspan="6">2. Address all priority protocol questions (PQs) of the USOAP CMA</td></tr>
<tr><td colspan="6">3. Update civil aviation regulations, (NAMCARs) to empower the authority to conduct regulatory oversight, (CE-2)</td></tr>
<tr><td colspan="6">4. Increase the level of compliance with ICAO SARPs and the EI of CEs 1-8</td></tr>
<tr><td colspan="6">5. Establish a process for the identification of differences to address the 6% non-compliances and 10% insufficient information with ICAO SARPs (CE-2)</td></tr>
<tr><td>Timeline</td><td>Responsible entity</td><td>Stakeholders</td><td>Metrics/Indicators</td><td>Priority</td><td>Monitoring Activity</td></tr>
<tr><td>2030</td><td>NCAA</td><td>NCAA
AOC Holders
ATOs
AMOs
AROs
License Holders</td><td>% Compliance with SARPs from ICAO USOAP OLF</td><td>Medium, SARPs compliance currently at 84%</td><td>USOAP/CMA results following next audit</td></tr>
<tr><td>SEI-ORG-2 — Development of a</td><td colspan="6">1. Develop, implement, and refine a risk-based surveillance programme (CE-7)</td></tr>
</table>

<table>
<tr><td rowspan="5">comprehensive regulatory oversight framework

This is directly linked to SEI-ORG-2 of the GASP.

Addresses Goal 2, Target 2.1</td><td colspan="6">2. Implement an enhanced regulatory oversight model to ensure effective allocation of resources for optimal safety oversight (CE-3)</td></tr>
<tr><td colspan="6">3. Seek assistance via States, regions, and industry to other States for development of national regulations (CE-2)</td></tr>
<tr><td colspan="6">4. Establish an effective system to attract, recruit, train and retain qualified and sufficient technical personnel to support regulatory oversight (see more detail under SEI-5) (CE-3 and CE-4)</td></tr>
<tr><td>Timeline</td><td>Responsible entity</td><td>Stakeholders</td><td>Metrics/Indicators</td><td>Priority</td><td>Monitoring Activity</td></tr>
<tr><td>2024</td><td>NCAA</td><td>NCAA</td><td>Effective Implementation of CE-3, CE-4, CE-5</td><td>High</td><td>USOAP/CMA results following next audit</td></tr>
<tr><td rowspan="6">SEI-ORG-3 — Qualified technical personnel to support effective safety oversight

This is directly linked to SEI-ORG-5 of the GASP.

Addresses Goal 2, Target 2.1</td><td colspan="6">1. Establish an effective system to identify and track qualifications and training of existing technical personnel (CE-4)</td></tr>
<tr><td colspan="6">2. Identify the gaps in qualified technical personnel and training requirements necessary to implement the oversight mandate (CE-4)</td></tr>
<tr><td colspan="6">3. Establish a compensation scheme for the attraction and retention of qualified technical personnel (CE-4)</td></tr>
<tr><td colspan="6">4. Make use of RSOOs, RAIOs, or equivalent means, to secure qualified technical personnel to perform those functions which cannot be performed by the State acting on its own (CE-4)</td></tr>
<tr><td colspan="6">5. Establish human resource plans to support hiring and retention of the appropriate number of qualified technical personnel required (CE-4)</td></tr>
<tr><td colspan="6">6. Implement training policies and programmes for technical personnel and verify that the type and frequency of training successfully completed (i.e., initial, recurrent, specialized, and on-the-job training) are sufficient to acquire/maintain the required qualifications and level of competence corresponding to the assigned duties and responsibilities of technical personnel (CE-4)</td></tr>
</table>

<table>
<tr><td></td><td colspan="6">7. Develop a process for assessing changing needs for qualified technical personnel requirements and develop procedures to update hiring, retention, and training of personnel needs, in coordination with SEI-ORG-4.2 (CE-4)</td></tr>
<tr><td></td><td>Timeline</td><td>Responsible entity</td><td>Stakeholders</td><td>Metrics/Indicators</td><td>Priority</td><td>Monitoring Activity</td></tr>
<tr><td></td><td>2024</td><td>NCAA</td><td>NCAA</td><td>Effective Implementation of, CE4</td><td>High</td><td>USOAP/CMA results following next audit
Critical staffing list
Organisational structure</td></tr>
<tr><td rowspan="6">SEI-ORG-4 — Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner

This is directly linked to SEI-ORG-6 of the GASP.

Addresses Goal 2, Target 2.1</td><td colspan="6">1. Based on the key goals and targets, establish a mechanism to identify collaborators and develop an action plan for the implementation (CE-1 to CE-5)</td></tr>
<tr><td colspan="6">2. Use a regional safety oversight mechanism or the services of another competent State or organization to support completion of NASP Goals 2 and 3</td></tr>
<tr><td colspan="6">3. Establish a process via RASG and/or RSOO for a mentoring/collaboration system, including providing State/industry assistance as well as sharing of best practices and internal follow-up actions (CE-1 to CE-5, emphasis on CE-3)</td></tr>
<tr><td colspan="6">4. Collaborate with RASG and/or RSOO, other States, ICAO, industry joint programmes and/or technical school partnerships to attract, recruit and train qualified and sufficient technical personnel and develop a strategy for their retention (CE-4)</td></tr>
<tr><td colspan="6">5. Establish and implement a process for the development and promulgation of technical guidance, tools, and the provision of safety-critical information, in collaboration with other States, RSOO, ICAO and/or other stakeholders, with the understanding that these materials need to be tailored to each State’s national regulations and operational environments (CE-5)</td></tr>
<tr><td colspan="6">6. While working to improve safety oversight, work with RASG and/or RSOO to address high-risk categories of occurrences (see OPS SEIs, Appendix A)</td></tr>
</table>

	Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
	2024	NCAA	NCAA ESAF CAAs AFCAC ICAO ESAF Office iSASO	Effective Implementation of, CE4	High	USOAP/CMA results following next audit Critical staffing list Organisational structure
SEI-ORG-5 — Provision of and continued update of the primary source of safety information to ICAO by completing, submitting, and updating all relevant documents and records *This is directly linked to SEI-ORG-7 and SEI-ORG-12 of the GASP.* **Addresses Goal 2, Target 2.1**	1. Update USOAP corrective action plan items					
	2. Continue to update the self-assessment checklist based on USOAP CMA priority PQs					
	3. Continue to update the State aviation activity questionnaire					
	4. Continue to update the compliance checklists on electronic filing of differences system					
	5. Update documents and records, as required, in a timely manner					
	Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
	2022	NCAA	NCAA DAAII	Effective Implementation Scores CAP Progress Compliance Scores Self-Assessment completion SAAQ completion	High	USOAP OLF
``SEI-ORG-6	1. Work at the national level to address significant safety concerns as a priority					

<table>
<tr><td rowspan="7">Consistent and continued implementation of and compliance with ICAO SARPs at the national level

This is directly linked to SEI-ORG-8 and SEI-ORG-9 of the GASP.

Addresses Goal 2, Target 2.1</td><td colspan="6">2. Increase the level of compliance with ICAO SARPs and the EI of CEs (all CEs, emphasis on CE-6 to CE-8)</td></tr>
<tr><td colspan="6">3. Refine and ensure compliance of licensing, certification, authorization, and approval processes (CE-6)</td></tr>
<tr><td colspan="6">4. Refine and ensure compliance of regulatory oversight and enforcement processes (CE-7 and CE-8)</td></tr>
<tr><td colspan="6">5. Develop the system for resolving safety concerns identified via accident and incident investigations, surveillance activities, safety reports, and other means (CE-8)</td></tr>
<tr><td>Timeline</td><td>Responsible entity</td><td>Stakeholders</td><td>Metrics/Indicators</td><td>Priority</td><td>Monitoring Activity</td></tr>
<tr><td>2024</td><td>NCAA</td><td>NCAA
DAAII</td><td>Investigation reports
Surveillance findings
Effective Implementation</td><td>High</td><td>Surveillance
USOAP</td></tr>
<tr><td rowspan="5">SEI-ORG-7 — Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner

This is directly linked to SEI-ORG-11 of the GASP.</td><td colspan="6">1. Based on the key goals and targets, establish a mechanism to identify collaborators and develop an action plan for the implementation (CE-6 to CE-8)</td></tr>
<tr><td colspan="6">2. Use an RSOO or other competent State or organization to support effective achievement of NASP Goals 2 and 3</td></tr>
<tr><td colspan="6">3. Seek assistance via RASG and/or RSOO from other States for the conduct of surveillance activities (CE-7)</td></tr>
<tr><td colspan="6">4. Use technical guidance, tools, and safety-critical information, developed in collaboration with other States, RSOO, ICAO and/or other stakeholders, to enable technical personnel to perform their safety oversight functions effectively (CE-6 to CE-8)</td></tr>
<tr><td colspan="6">5. While working to improve safety oversight, continue to work with RASG and/or RSOO to address high-risk categories of occurrences (see OPS SEIs, Appendix A)</td></tr>
</table>

	Timeline	*Responsible entity*	*Stakeholders*	*Metrics/Indicators*	*Priority*	*Monitoring Activity*
	2024	NCAA	NCAA RSOO RASG ICAO	Level of collaboration with RSOO/RASG/ICAO	Medium	Surveillance Occurrences
SEI-ORG-8 — Implementation of SSP *This is directly linked to SEI-ORG-13, SEI-ORG-14, and SEI-ORG-15 of the GASP.* **Addresses Goal 3**	1. Secure State-level commitment to improve safety					
	2. Update initial SSP gap analysis (checklist) then the detailed SSP self-assessment					
	3. Establish an SSP implementation team					
	4. Develop an implementation plan for the SSP based on the gap analysis					
	5. Verify SMS implementation through SMS auditing from safety divisions					
	6. Identify and share safety management best practices					
	7. Establish a process for planning and allocation of resources to enable SSP implementation and identify areas where resources are needed					
	8. Work with RSOO, other States and other organizations, as appropriate to train qualified technical personnel to fulfil their duties and responsibilities regarding SSP implementation					
	9. Establish a process via RASG and/or RSOO for a mentoring system, including providing assistance to States/industry, as well as sharing of best practices to support SSP implementation					
	10. Develop a process to provide training on SSP to relevant staff, in collaboration with RSOO and/or other States (e.g., initial, recurrent, and advanced)					
	11. Establish and implement a process for sharing technical guidance, tools and safety-critical information related to SSP (e.g., advisory circulars, staff instructions, safety performance indicators), in collaboration with other States, RASG, RSOO, ICAO and/or other stakeholders					

	12. Work with collaborators to ensure all elements of the SSP are present, suitable, operational, and effective 8M — Establish a system for the continuous improvement of the SSP, in collaboration with all relevant stakeholders					
	13. Serve as a champion State to promote best practices among other States					
	Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
	2026	NCAA-SPQ	NCAA DAAI MWT NAC Industry NDF	Effective Implementation of SSP Protocol Questions Establishment of SSP	High	SSP Steer Com activities USOAP Online Framework SSP Implementation Plan
SEI-ORG-9 — Establishment and monitoring of safety risk management *This is directly linked to SEI-ORG-17, SEI-ORG-18, and SEI-ORG-19 of the GASP.* **Addresses Goal 3**	1. Maintain the accident and incident database, monitor trends, and respond to any alert levels					
	2. Expand on promotion of voluntary, confidential, and hazard reporting options					
	3. Establish and maintain a process to identify hazards from collected data					
	4. Establish and utilize a process to ensure the assessment of safety risks associated with identified hazards					
	5. Promote safety awareness and the two-way communication, sharing and exchange of safety-relevant information within the State's aviation organizations and encourage sharing of safety information with industry within the State					
	6. Contribute information on safety risks and SSP safety performance indicators to the RASG					
	7. Ensure that the Civil Aviation Safety Inspector workforce is trained to perform safety oversight of service providers that have implemented SMS					
	8. Ensure service providers develop an appropriate safety culture, and continue to monitor the maturity of service provider's safety culture					

	Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
	2024	NCAA Safety Divisions	NCAA NAC DAAII Industry	Service Providers Annual Safety Assessment Questionnaires (ASAQ)	High	Surveillance Occurrence Database
SEI-ORG-10 — Enhance regional and international collaboration. **This is linked to Goal 4**	1. Participate in regional forums to enhance shared knowledge internally and externally					
	2. Continue to engage with regional partners to improve safety and harmonise services					
	3. Define requirements and ensure participation in international civil aviation events and forums					
	4. Participate in the Safety Assessment of Foreign Aircraft (SAFA) Ramp inspection programme					
	Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
	2024	NCAA Safety Divisions	NCAA ANSP NAC DAAII Industry	Regional Partner correspondence Regional meeting minutes	High	SPQ and SSP Library files on regional correspondence
SEI-ORG-11 – Enhance participation in safety programmes by industry and service providers. **Addresses Goal 5**	1. Baseline current industry programme participation*					
	2. Define how participation in industry programmes can be used to contribute to risk-based surveillance					
	3. Promote participation in recognised industry assessment programmes*					
	4. Ensure all airlines are IOSA certified					
	Industry programmes may include, but are not limited to:					

	• Airports Council International — Airport Excellence in Safety programme (for airports); • Civil Air Navigation Services Organisations (CANSO) standards of excellence (Air Traffic Service providers); • International Air Transport Association Operational Safety Audit (IOSA)(Airlines); • International Business Aviation Council International Standard for Business Aircraft Operators (business aviation)					
	Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***
	2023	NCAA Safety Divisions	NCAA ANSP NAC DAAII Industry	% of service providers who participate in industry programmes % of airlines with IOSA certification No. of industry participation groups	High	SPQ and SSP Library files on industry programmes
SEI-ORG-12 – Support establishment of required infrastructure in air navigation and airports **Addresses Goal 6**	1. Develop and implement an air navigation plan in line with the GANP to support the NASP					
	2. Develop a plan for implementation of the ICAO Basic Building Blocks (B0 completed)					
	3. Implement ICAO BBS Block 0 upgrade					
	4. Certify the main international airports according to Part 139					
	5. Provide regulatory safety and security services for development of air navigation infrastructure					
	6. Provide regulatory safety and security services for development of airport infrastructure					
	Timeline	***Responsible entity***	***Stakeholders***	***Metrics/Indicators***	***Priority***	***Monitoring Activity***

	2023	AGA ANSSO SPQ	NCAA ANSP NAC	% completion of Block 0 upgrade % completion of air navigation plan No. of international airports certified	High	SWG Meetings Reports and documents from ANSSO and AGA.

Photo Credit: Marc Springer/Allgemeine Zeitung

APPENDIX C - Safety Performance Indicators and Target Metrics

Namibia has extracted key indicators from a data driven approach to safety that follow the S.M.A.R.T principle. They are specific, measurable, achievable, realistic, and time bound. The key safety performance indicators which we have collected data on to date, and their numerical targets to achieve the safety goals of the NASP are summarised below.

SPI#	Indicator	Actual 2022	Target 2023	Target 2024	Target 2025
1.1.1	Accident rate per 1000 departures	0.176	0.158	0.142	0.128
1.2.1	Fatal accident rate per 1000 departures	0.034	0.031	0.028	0.025
1.3.1	Accident rate in commercial air transport over 5 700kgs	0.000	0.000	0.000	0.000
1.4.1	Mandatory incident rate per 1000 departures	4.413	3.971	3.574	3.217
1.5.1	Voluntary occurrence rate per 1000 departures	0.867	0.953	1.048	1.153
1.6.1	Hazard report rate per 1000 departures	5.781	6.359	6.995	7.694
1.7.1	Overall High-Risk Categories SO1 to SO 7 per 1000 departures	0.573	0.516	0.464	0.418
1.7.2	Air Proximity Precursors and events, rate per 1000 departures	0.250	0.225	0.202	0.182
1.7.3	CFIT precursors and events rate per 1000 departures	0.165	0.148	0.133	0.120
1.7.4	Runway excursion precursors and events, rate per 1000 departures	0.117	0.106	0.095	0.086
1.7.5	Wildlife events, rate per 1000 departures	1.217	1.096	0.986	0.887
1.7.6	Loss of Control precursors and events, rate per 1000 departures	0.086	0.077	0.069	0.062

1.7.7	**Runway incursion precursors and events, rate per 1000 departures**	**0.189**	**0.170**	**0.153**	**0.138**
1.7.8	**Maintenance Events, rate per 1000 departures**	**1.991**	**1.792**	**1.613**	**1.451**
2.1.1	**USOAP Effective Implementation rate**	**57%**	**75%**	**80%**	**85%**
2.2.1	**USOAP Self-Assessment**	**93%**	**100%**	**100%**	**100%**
2.3.1	**USOAP CAPs completed or in progress**	**45%**	**55%**	**65%**	**75%**
2.4.1	**Level of compliance with the SARPs**	**83.87%**	**92.26%**	**92.26%**	**92.26%**
3.1.1	**Percentage completion of SSP Implementation Plan**	**60%**	**75%**	**100%**	**100%**
3.2.1	**Percentage of SSP IAs marked not present but being worked on**	**Not assessed**	**100%**	**100%**	**100%**
3.2.2	**Percentage of SSP IAs marked present**	**Not assessed**	**50%**	**75%**	**100%**
3.2.3	**Percentage of SSP IAs marked present and effective**	**Not assessed**	**25%**	**50%**	**75%**
3.3.1	**Percentage of Service Providers with implemented SMS**	**93%**	**100%**	**100%**	**100%**
3.3.2	**Percentage of Service Providers with approved SMS**	**49%**	**75%**	**85%**	**100%**
3.4.1	**Percentage of SSP SteerCom meetings attended**	**100%**	**100%**	**100%**	**100%**
3.4.2	**Percentage of Safety Working Group meetings attended**	**91.67%**	**100%**	**100%**	**100%**
4.1.1	**Number of safety communications to and from the regional safety groups**	**45**	49.5	54.45	59.895
4.2.1	**Number of regional or global safety events participated in**	**13**	14.3	15.73	17.303

5.1.1	**Number of industry safety groups established**	**3**	**5**	**7**	**7**
5.2.1	**Percentage of airlines which are IOSA certified**	**0%**	**100%**	**100%**	**100%**
6.1.1	**Percentage of core airport and navigation infrastructure completed**	**16.67%**	**19.2**	**22%**	**25%**
6.2.1	**Percentage of BBB Block zero completed**	**66.67%**	**76.67%**	**88.17%**	**100%**