



SMS and SSP

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Applicable Annexes and Regulations

SMS Overview

SMS Documentation

SMS Implementation

State Safety Programme

ICAO Annex 13

ICAO Annex 19

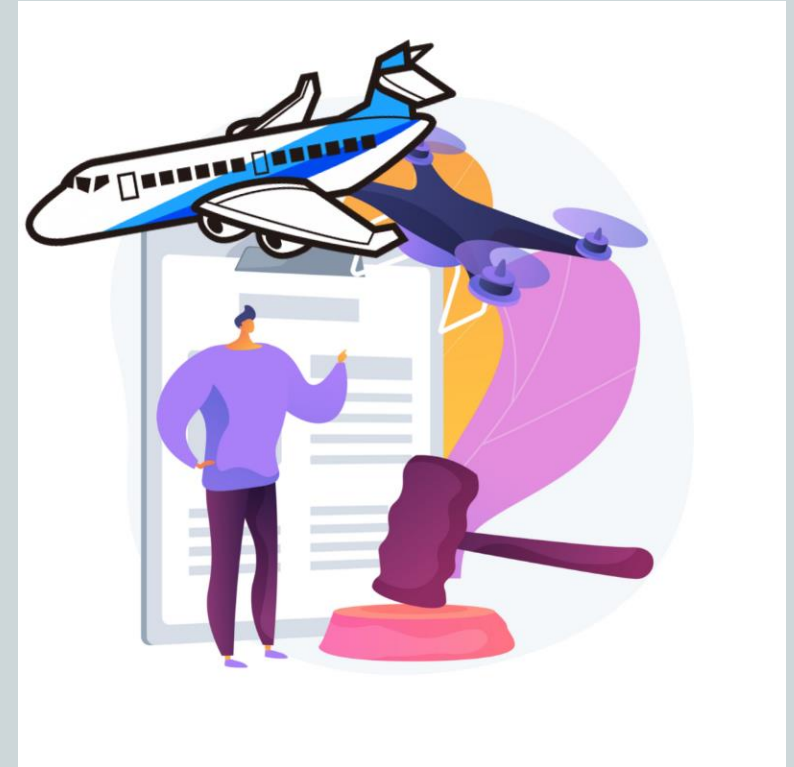
Civil Aviation Act

NAMCARs Part 140

NAMCATS-SMS-140

Reference: ICAO Document 9859

Safety Management Manual



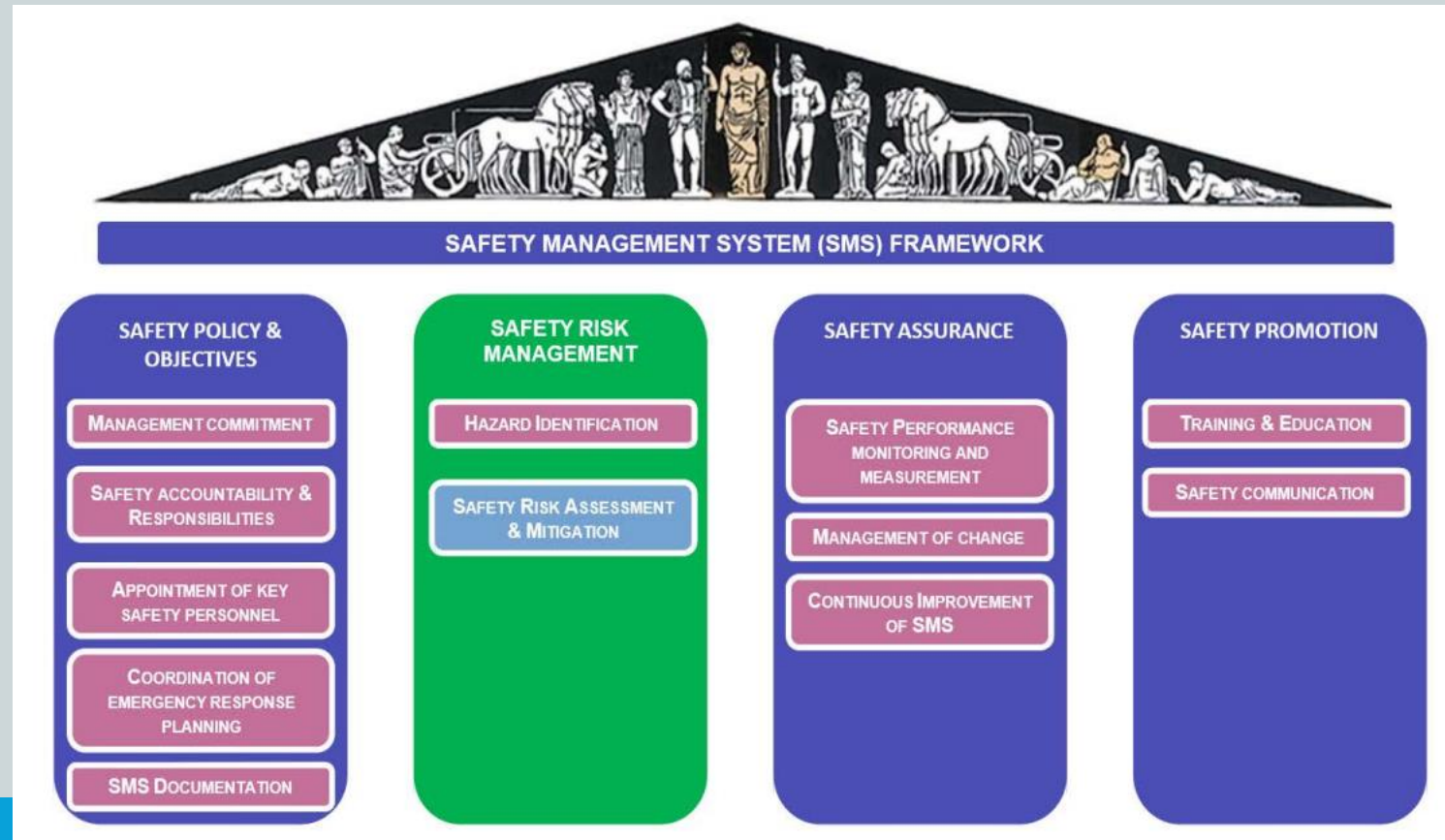
A Safety Management System (SMS) is a requirement of the NAMCAR Part 140 for all aviation certificate holders along with non-commercial complex operators.

What exactly is an SMS?

ICAO Document 9859 Safety Management Manual describes SMS as:

“A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies, and procedures.”

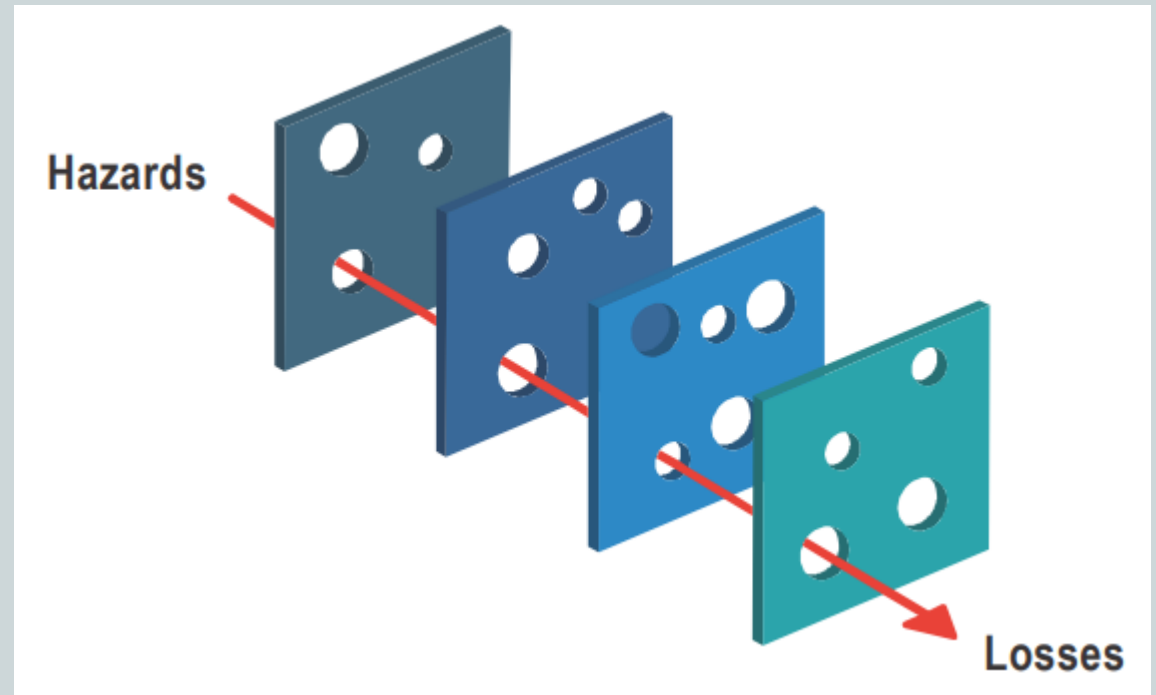
It does this through a systematic process of policy, risk management, safety assurance, and promotion.



- To sum up an SMS, we need to further refer to the definition of Safety, the ICAO Document 9859, Safety Management Manual says Safety is:

“the state in which the risk of harm to persons or of property damage is reduced to, and maintained at or below an acceptable level through a continuing process of hazard identification and risk management” (ICAO Safety Management Manual).

- SMS aims to trap hazards and thereafter manage risks through the Safety Data Collection and Processing System (SDCPS)
- The SDCPS collects and analyses reports on:
 - Hazards
 - Occurrences
 - Investigations
 - Accidents
 - Risk Assessments
- And uses them for trend analysis, risk mitigation, and monitoring of SPIs and SPTs.



We might all know what it is, but what does SMS aim to achieve?

Our SMS aims to achieve an:

ACCEPTABLE LEVEL OF SAFETY PERFORMANCE (ALoSP)

And one which is:

AS LOW AS REASONABLY PRACTICABLE (ALARP)

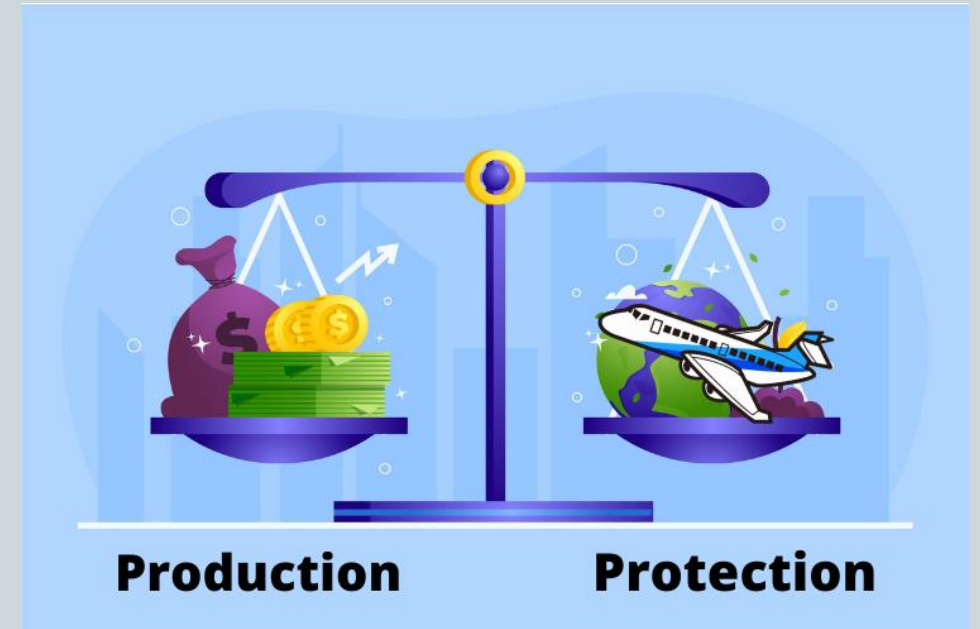
What is an Acceptable Level of Safety Performance (ALoSP)?:

- An agreed performance between the service provider and the regulator, and one that is ALARP;
- Clearly defined in the Service Provider's Safety Performance Indicators and Targets;
- Must be revised annually and updated periodically (ideally three yearly in line with the NASP and GASP);

	RISK INDEX VALUE				
	Extremely Improbable (1)	Improbable (2)	Remote (3)	Occasional(4)	Frequent(5)
Catastrophic (5)	5	10	15	20	25
Hazardous (4)	4	8	12	16	20
Major (3)	3	6	9	12	15
Minor (2)	2	4	6	8	10
Negligible (1)	1	2	3	4	5

What is As Low As Reasonably Practicable (ALARP)?:

- A level of performance below which strikes a balance between production and protection;
- There is no significant benefit from further mitigations or where the cost of applying mitigation significantly outweighs the benefit;
- We cannot operate without risk, so there is a point below which further mitigation is unjustified, and this is ALARP.

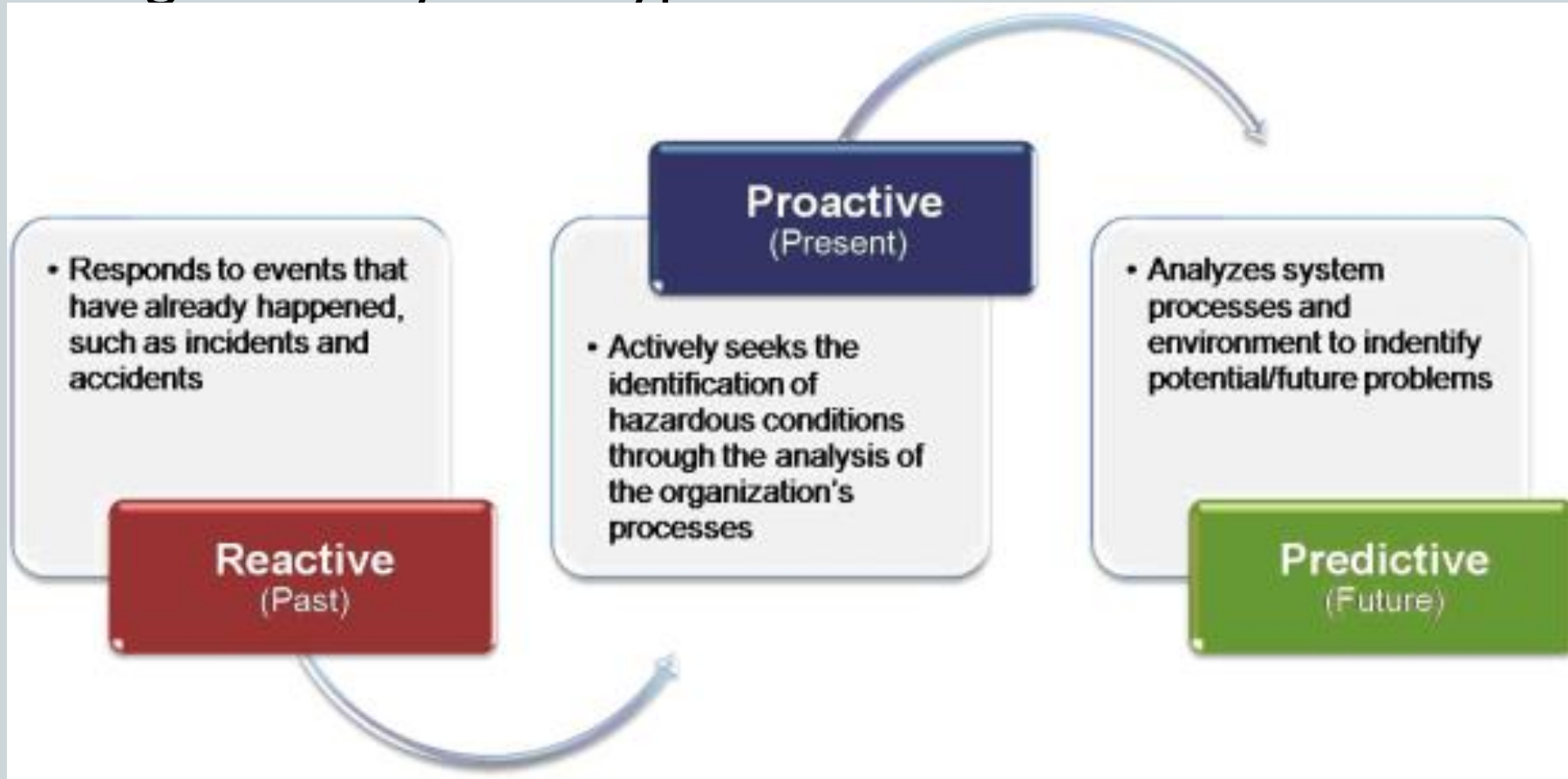


Safety Management System Types

- An SMS may be
 - Reactive – actions to be put in place after an occurrence has happened
 - Proactive – identifying hazards and implementing mitigation before an occurrence has happened
 - Predictive – identifying trends from prior data sets before a hazard occurs

Ideally a fully matured SMS will utilise all three under different conditions and for different applications. The progression of an SMS will move from reactive to predictive, but each step is still retained and used when needed.

Safety Management System Types



An SMS need not be overcomplicated, in fact, the less complicated the more likely it will be used, however there is a number of basic documents that are needed, at a minimum:

- SMS Manual
- Occurrence and Hazard Reporting Forms
 - Occurrence and Hazard Register
 - Investigation Reports
 - Risk Assessments
- SMS Audit Forms for continuous improvement (part of the QMS)

- The requirements of an SMS Manual are contained in NAMCATS 140, paragraph 2.5.4. and guidance is contained in Advisory Pamphlet FSS-SPQ-AP140-01.
- NCAA also has form FSS-GEN-FORM-603-03 which is a detailed checklist of what should be in an SMS manual
- The SMS Manual should describe the SMS system fully, and so should be based on the four pillars and twelve elements contained in NAMCATS-140 Section 140.02.3
- The SMS Manual applies to all staff and so must be written in a way that it can be understandable by all, it should not be over complicated!

SMS Implementation

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- NAMCATS-SMS 140.02.3 contains a recommended guide for SMS Implementation
- To begin or to audit your current SMS, create a gap analysis based on these requirements, and then create a realistic timeline for each element required.
- An effective and mature SMS is estimated to take a minimum of three years to fully implement and then requires ongoing commitment from all those involved to maintain.
- Advisory pamphlet FSS-SPQ-AP140-02 details more guidance on SMS implementation.

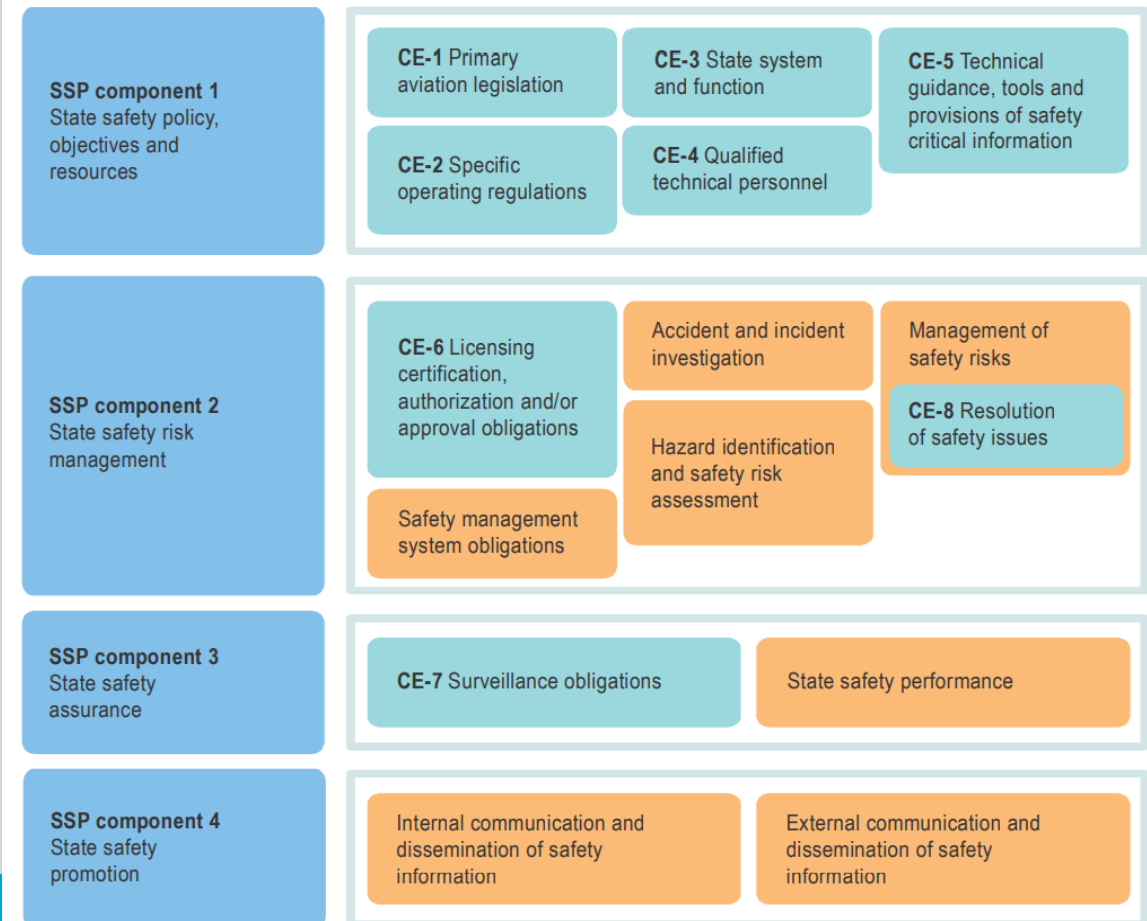
- Annex 19 requires all States to develop a State Safety Plan
- The ICAO Global Aviation Safety Plan (GASP) establishes a target for States to achieve full implementation by 2025
- Namibia began implementation in 2017 and is currently in Phase 2 of the implementation plan.



State Safety Programme

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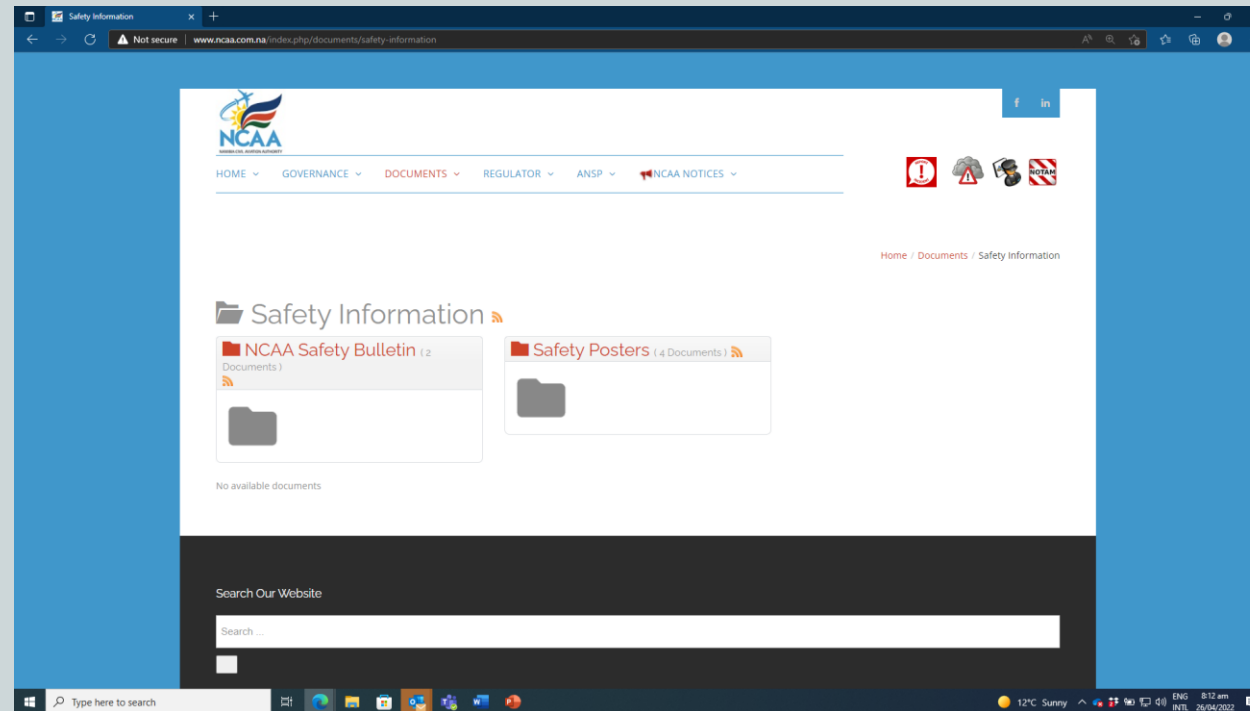
- The State Safety Programme is like an SMS for the State, it contains the same 4 pillars, however the elements are slightly different.
- The components of the Namibian SSP thus far established comprise:
 - SSP Implementation Team
 - SSP Steering Committee
 - SSP Documentation (under development)
 - State Safety Policy
 - SSP Manual
 - National Aviation Safety Plan (NASP)
 - Risk Management Manual
 - SSP Training Manual
 - Aviation Disaster Management Plan (AvDMP)
 - SMS to be implemented by all required parties
 - Safety training and promotion



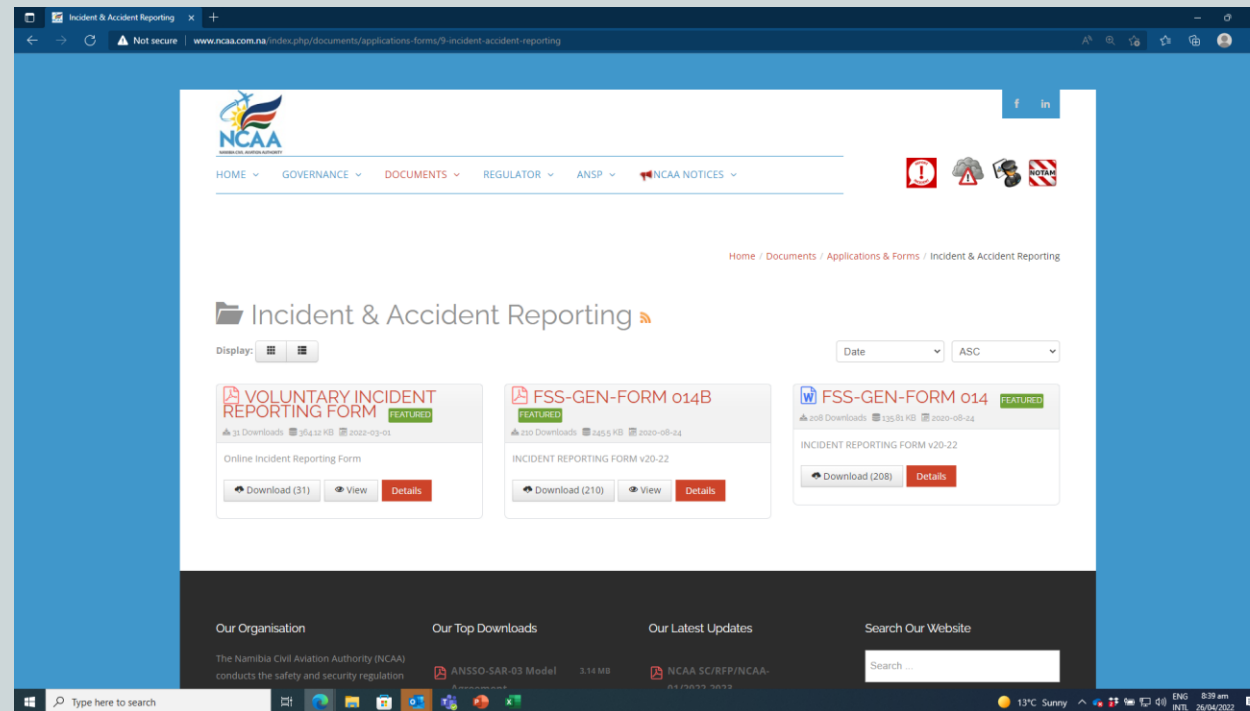
State Safety Programme

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- The State Safety Programme has established a safety information area on the NCAA website where all documentation will be posted once approved:



- Reporting forms are also available on the website:



- Just like the SMS, the heart of the SSP is the SDCPS
- Effective SMS and SSP comes from a “reporting culture”
- The more data that can be collected, the stronger an SSP/SMS is
- We need your help to create an effective SSP, remember:



**IF IN DOUBT
- FILL IT OUT!**

 Help us help you by reporting occurrence and hazards

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

incidents@ncaa.na

In Conclusion ...

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- ✓ SMS is the service provider's tool to achieve ALoSP
- ✓ SMS must be approved by the regulator
- ✓ All the requirements for SMS are contained in NAMCAR and NAMCATS Part 140
- ✓ Additional Guidance Material is provided in Advisory Pamphlets on the NCAA website and in ICAO document 9859 Safety Management Manual
- ✓ The SSP is the States version of SMS and requires your help to make it effective.
- ✓ SMS and SSP apply to everyone – your contribution counts!

- Questions?

