SMS IMPLEMENTATION NAMCAR AND NAMCATS PART 140

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NCAA
NAMIBIA CIVIL AVIATION AUTHORITY

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HOW SMS AFFECTS YOUR ORGANISATION

Improved Productivity

A safe operation is an efficient one

Reduction in losses

Reduction in accidents and incidents means less costs for losses

Improved staff wellbeing

When staff know safety is your number one priority, they feel more valued

SMS IS REQUIRED FOR *ALL* AVIATION SERVICE PROVIDERS IN ACCORDANCE WITH NAMCAR PART 140.01.1

PHASES OF SMS

PHASE 1

Appointment of key personnel

Gap Analysis

PHASE 2

Documentation

Meetings

PHASE 3

Data gathering and management

PHASE 4

Training

Promotion

Quality

PHASE ONE – LAY THE FOUNDATION!

An SMS must be built on a solid foundation

- At the beginning of your safety journey into a fully fledged SMS you need to appoint the key personnel who will be responsible for the implementation
- At a minimum this will be:
  - An accountable manager (140.03.1)
  - A safety manager/person responsible safety (140.03.2, NAMCATS 140.02.2 para. 2.3)
- The organigram must ensure that the person responsible safety has direct access to the accountable manager
- Key personnel require initial training in order to be able to progress with SMS implementation
- A gap analysis should be completed

PHASE TWO

Critical to Phase two is development of documentation

PHASE 2 - DOCUMENTATION

SAFETY POLICY

The first document which needs to be addressed following the gap analysis and implementation plan is the safety policy and objectives. This document sets the standard of safety for the organisation. The policy must at a minimum :

- Establish the level of safety
- Demonstrate management's commitment to availing resources for safety
- Once approved it must be visibly endorsed throughout the company

SAFETY MANAGEMENT MANUAL

The next essential document is the SMS Manual or SMM. NAMCATS has a specific series of guidelines for the SMM additionally there is an NCAA checklist available for developing this document. Key to developing your SMM is description of Hazard Identification and Risk Management (HIRM), and this includes a solid reporting process. Ideally reporting forms should be an annexure to the manual.

Integral or as a separate document, your ERP also needs to be developed at this point.

INTEGRAL IN YOUR MANUAL DEVELOPMENT ARE THE FOUR PILLARS AND TWELVE ELEMENTS OF AN SMS

- 1.1 Management commitment
- 1.2 Safety accountability and responsibilities
- 1.3 Appointment of key safety personnel
- 1.4 Coordination of ERP
- 1.5 Documentation

- 2.1 Hazard identification
- 2.2 Safety risk assessment and mitigation

- 4.1 Training and education
- 4.2 Safety communication

- 3.1 Safety performance monitoring and measurement
- 3.2 The management of change
- 3.3 Continuous improvement of the SMS

PHASE 2 – SAFETY GROUPS AND MEETINGS

SAFETY ACTION GROUP

At this point in your SMS safety groups need to be established.

The working group of the SMS is often referred to as the Safety Action Group (SAG) or Safety Working Group (SWG). This group should meet at a minimum of monthly and discussion revolves around safety occurrences that require mitigations or escalation, safety promotion, and general day to day management of the SMS.

The SAG is normally chaired by the person responsible safety / safety manager

The safety review bord or committee (SRB) is a higher level activity which should be chaired by the Accountable Manager or responsible executive. The SRB discusses matters which require capital input, serious safety cases, and decisions that relate to the operation and that require executive sign off. The SRB may be convened quarterly or monthly or on an as required basis. The frequency is normally less than that of the SAG.

SAFETY REVIEW BOARD

You should also create safety meetings for operational staff which should also be ideally monthly events.

PHASE THREE - DATA

SDCPS

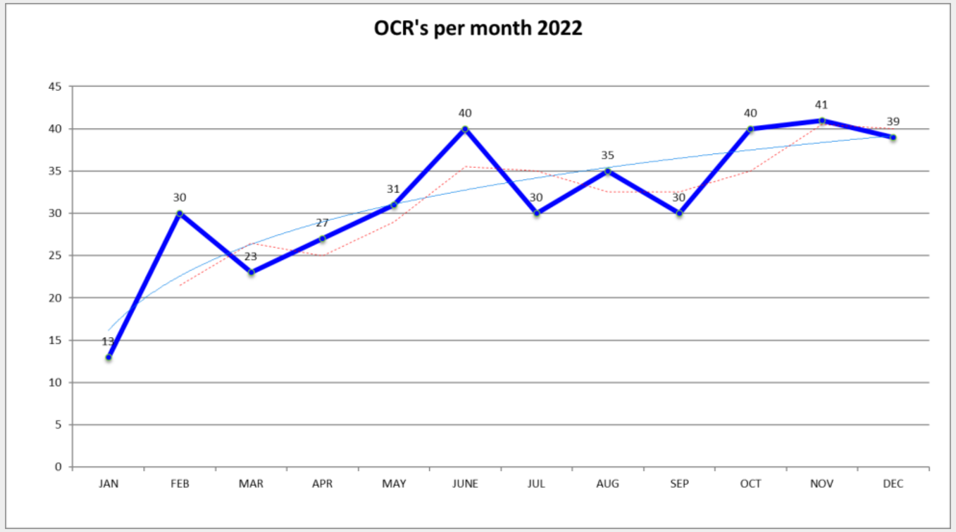
The SDCPS must have at a minimum:

- Occurrence register
- Risk register

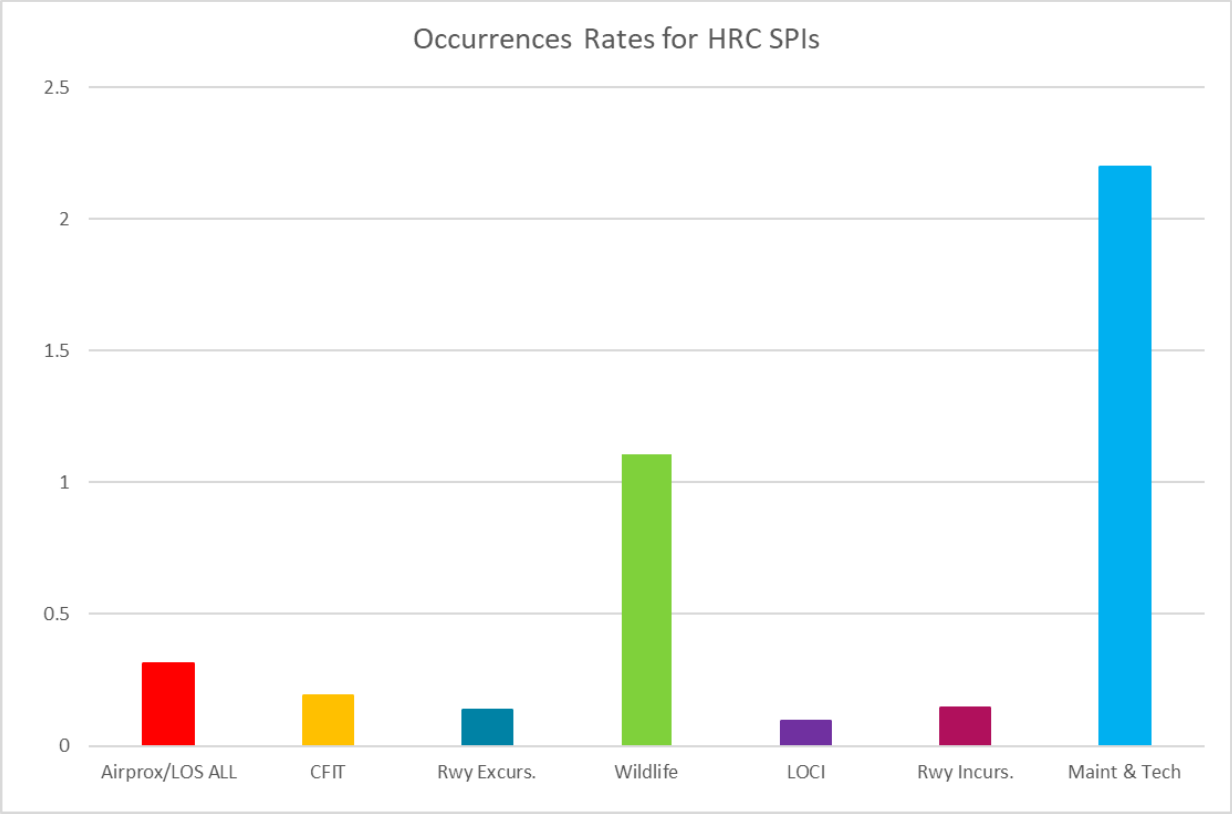
How you log the data is optional, but the database must be capable of extracting trends and statistics for your SPIs and SPTs

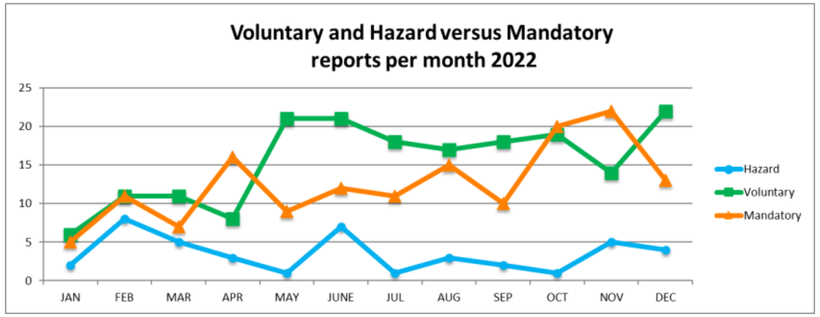
Figures must be tracked against activity rates, for example hours, movements, passenger numbers

- The SDCPS must be secure and access limited.

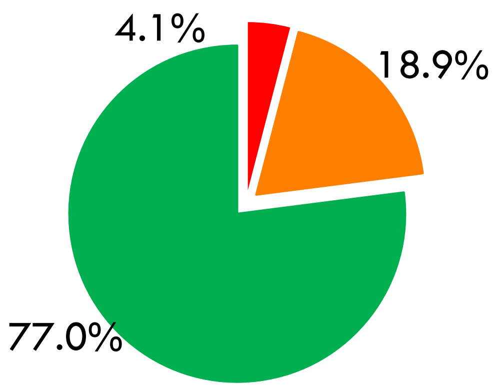


SAFETY DATA COLLECTION AND PROCESSING SYSTEM (SDCPS)





Type of Risk (YTD)



RISK ASSESSMENT

TRADITIONAL 3 LEVEL MATRIX

RISK SEVERITY	RISK PROBABILITY				
	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

MULTIPLICATION MATRIX

Risk Rating = Likelihood x Severity

Severity		1 Improbable	2 Remote	3 Occasional	4 Probable	5 Frequent
Catastrophic	5	5	10	15	20	25
Significant	4	4	8	12	16	20
Moderate	3	3	6	9	12	15
Low	2	2	4	6	8	10
Negligible	1	1	2	3	4	5

Likelihood

Catastrophic	STOP
Unacceptable	URGENT ACTION
Undesirable	ACTION
Acceptable	MONITOR
Desirable	NO ACTION

ADDITION MATRIX

	Extremely Improbable (1)	Improbable (2)	Remote (3)	Occasional(4)	Frequent(5)
Cantastrophic (5)	6	7	8	9	10
Hazardous (4)	5	6	7	8	9
Major (3)	4	5	6	7	8
Minor (2)	3	4	5	6	7
Negligible (1)	2	3	4	5	6

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“SAFETY MUST BE AT THE HEART OF EVERTHING WE DO”

The first three elements and phases must be backed up by continuous training, communication, education, and promotion

PHASE 4 – TRAINING, PROMOTION, CONTINUOUS IMPROVEMENT

- As the implementation phases of your SMS conclude and the maintenance begin, it is essential to have a solid platform of training and promotion backed up by a continuous improvement cycle
- At this point, at the latest, the SMS must be included as part of the QMS reviews and audits, that is, safety processes must be audited to ensure continual improvement

IMPLEMENTATION TOOL – GAP ANALYSIS

Table 1: SMS Implementation Gap Analysis

Reg.	Element / Component required	Action/task(s) required for implementation	Assigned group/person	SMS document reference	Status Yes/No/ Partial
	Phase I				
	Management Commitment				
140.02.3	3.2.1 Identify the Accountable Executive and	*Eg. 1A. Nominate accountable manager*	*Chief Executive Officer*	*1.3.1*	*Yes*
		Eg. 1B Approval of accountable manager appointment by NCAA	*Operations Manager*	*1.3.1*	*Partial*
140.02.2	3.3.1 A Safety Manager must be appointed	*Eg. 1C Nominate safety manager*	*Accountable Manager*	*1.3.1*	*Yes*
		Eg. 1D. Approval of Safety Manager appointment by NCAA	*Operations Manager*	*1.3.1*	*Partial*
140.02.3	3.2.2 Establish a SMS implementation team that must comprise of representatives from the relevant departments.	*Eg. 2A Appoint SMS implementation team*	*Safety Manager/Accountable Manager*	*SSP Impl. Plan*	*No*
140.02.3	3.2.3 Define task lists for the implementation team to include:	*….etc.*			
140.02.3	3.2.3.1 Conduct a gap analysis of the organisations current systems and processes				

Consider colour coding

All items need a reference!

Actions must have a responsible person

IMPLEMENTATION TOOL - PLAN

Table 2. Example SMS implementation schedule

Action/task required	*Status*	*Schedule/timeline* Note: insert actual year for each phase starting with current Quarter															
		Year 1				*Year 2*				*Year 3*				*Year 4*			
Note: COPY TASKS FROM TABLE 1 Column 3		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Eg. 1A. Nominate accountable manager	Closed																
Eg. 1B Approval of accountable manager by NCAA	Open																
etc.																	

- A Gant chart is a great way to keep track of your implementation plan.

IMPLEMENTATION CHECKLISTS

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Instructions for Use:

1. Check **C** column if you determine the document or individual item conforms to requirements.
2. Check **N/C** column if you determine that the document or individual line item does not comply (put a marker tab in the manual with a short note opposite the non-complying item).
3. Check **N/Ckd** if the item was not checked. Reasons should be given in remarks column.
4. Check **N/A** column if it is not applicable or you do not have adequate information to make a valid comment.
5. Use the remarks column at the end for overall remarks or observations. For detailed findings inspectors may also use FSS-GEN-FORM-701-01: Audit Inspection Report Form. Forward the findings to the Operator and attach a copy to this checklist.
6. Coordination is required between the relevant departments and SPQ as necessary.
7. The respective inspector shall sign on the last page after reviewing the item.
8. For further guidance refer to relevant Volume and Chapters in Inspector Handbook.
9. For further guidance refer to relevant Chapters in Inspector Handbook TGM Volume 4 Part 2

EVALUATION OF SAFETY MANAGEMENT MANUAL FSS-GEN-FORM-603-03			
Operator File Reference	Inspector's Name	Date Programme Submitted	Date/s of Evaluation
Name of Operator/Applicant	Title and Version of Manual	Contact Person	Phone No.

S/N	Description of Required Content	Reference (completed by applicant)	For Official Use
	DOCUMENT CONTROL PROCESS		
1.	Is the manual presented in "hard" and "soft" copies	~~e.g.~~ Paragraph number / page number / Yes / All	N/A □ C □ N/C□ N/Ckd □
2.	Securely bound and exterior of binder clearly indicates manual content?		N/A □ C □ N/C□ N/Ckd □
3.	Copies numbered for controlled issuance?		N/A □ C □ N/C□ N/Ckd □
4.	What is the distribution format, is it hard copies or controlled electronic media and is there a distribution list attached?		N/A □ C □ N/C□ N/Ckd □
5.	Does the document control describe how the manual will be kept up to date and how the organisation will ensure all staff have the latest version?		N/A □ C □ N/C□ N/Ckd □

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- NCAA SMS and ERP Checklists are available for your convenience on the NCAA website, via your principal inspector, or from SPQ
  - FSS-GEN-FORM-603-03 SMS Manual Evaluation
  - FSS-GEN-FORM-603-04 QMS Manual Evaluation
  - FSS-GEN-FORM-603-05 ERP Manual Evaluation
  - FSS-GEN-FORM-604-02 SMS Audit Initial checklist
  - FSS-GEN-FORM-604-02A SMS Audit Review checklist

"Safety is not negotiable!"

\- TOSKA SEM

This presentation has been a brief overview of the implementation of an SMS. The full details are provided for in the following recommended reading:

- **NAMCAR and NAMCATS Part 140**
- **NCAA APs on SMS, SMM, CAPs, reporting, SMS Implementation Tool**
- **NCAA checklists on SMS and SMM**
- **ICAO Annex 19**
- **ICAO Document 9859**

If you don't have access to the above ICAO documents, please ask us!

QUESTIONS?

THANK YOU !!

We look forward to working with you

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