



SMS INSPECTORATE WORKSHOP

From Insight to Action: Advancing Aviation
Safety with SMS & RBO



SAFETY CULTURE VALUES



**RISK PERFORMANCE
BASED OVERSIGHT**



BRENDA MLANGENI
MANAGEMENT OF CHANGE

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Objective

-  Highlight the concept of management of change primarily in the regulatory context.
-  To make emphasis on the applicable management of change triggers and associated compliance expectations.
-  To provide guidance and knowledge perspective to all stakeholders required to formulate and systematically implement, engage and maintain safety risk assurance mechanisms, specifically from the identification of hazards to the management of change element, thus formulation of safety case. (Case Study)

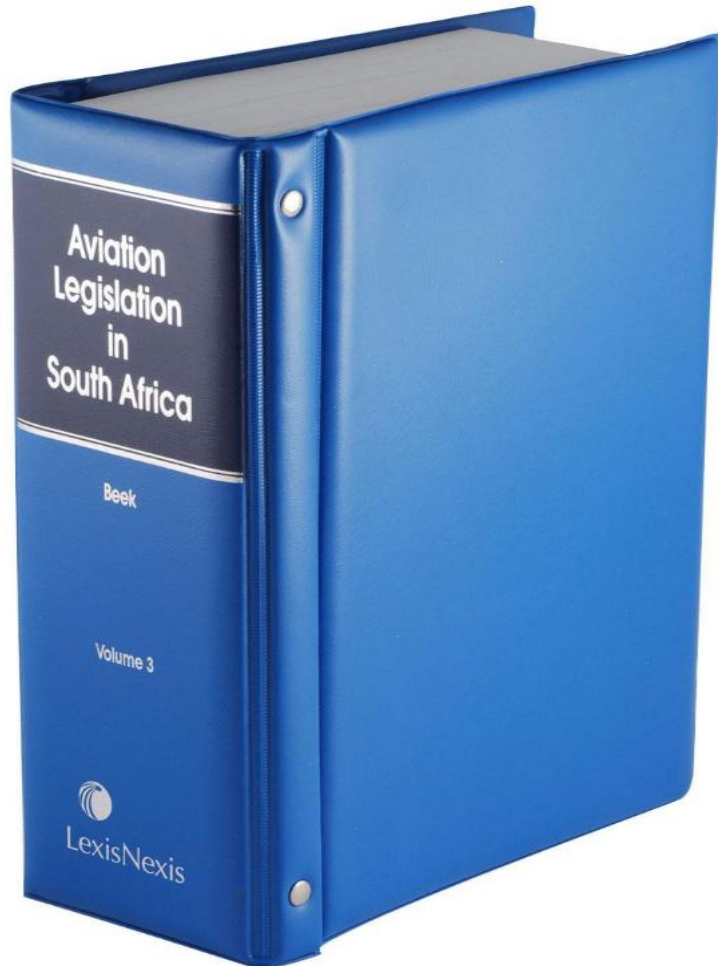
Management of Change Definition

DEFINITION

“A formal process for systematic and **proactive** identification of hazards and of appropriate mitigation strategies and measures, to be applied to all changes concerning the safety of services provided by an aviation organization.”



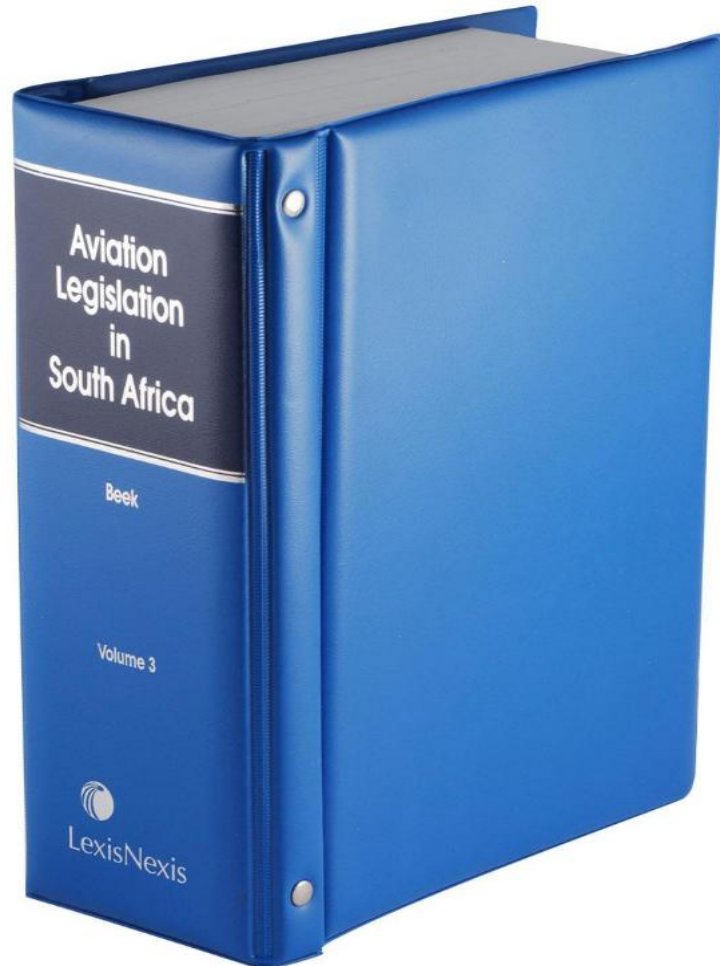
Legal Requirements



SA CAR Part 140.01.3(1)(c)(ii) reads,
“An entity referred to in regulation 140.01.1 shall include in its SMS the following components and elements—
(c) safety assurance—
 (ii) management of change”

Legislated Technical Standards

SA CATS 140.01.3 (21)



(1) An entity referred to in regulation 140.01.1 shall **develop, document, implement and maintain** the current process to—

(a) **identify changes** which may affect the level **of safety risk associated with** its aviation products or services; and

(b) identify and manage the **safety risks** that may arise from **those changes**.

(2) An entity shall establish a process aimed at **identifying internal and external changes that may have an adverse effect on safety before implementation and aim at defining the changes that shall require a comprehensive management of change process**.

Management of Change Triggers

SA CATS 140.01.3 (1)(1.3)(1.3.5)

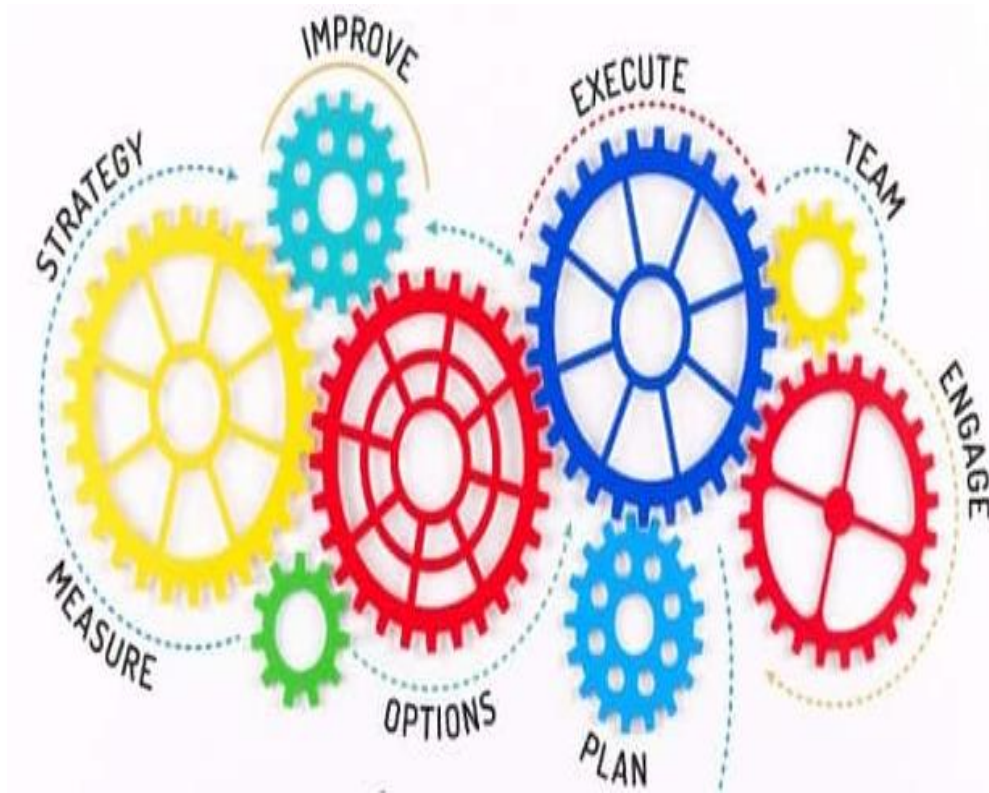
(3) One of the following changes shall trigger a comprehensive management of change process –

- (a) introduction of **new technology or equipment**;
- (b) changes in the **operating environment**;
- (c) changes in **key personnel**;
- (d) significant **changes in staffing levels**;
- (e) changes in **regulatory requirements**;
- (f) **exemptions or alternative means of compliance**;
- (g) **significant** changes in an organization's **policies; procedures and manuals**;
- (h) changes in the **scope** of an organization's certificate;
- (i) significant **restructuring of the entity**; and
- (j) **physical** changes (new facilities or base, aerodrome layout changes, etc)



TRIGGER WARNING

Management of Change Process



1. Understanding and **defining the change**; this shall include **a description** of the change **and why** it is being implemented;
2. Understanding and **defining who and what** it shall affect;
3. **Identifying hazards related** to the change and carrying out a **safety risk assessment**; this shall identify any hazards directly related to the change;
4. Developing an **action plan** shall define what needs to be done, by **whom** and by **when**;
5. With justification and supporting **evidence**, then **sign off** on the proposed change;
6. Create an **assurance plan** to monitor the change implementation and verify that **risks mitigations** are sustainably managed effectively.

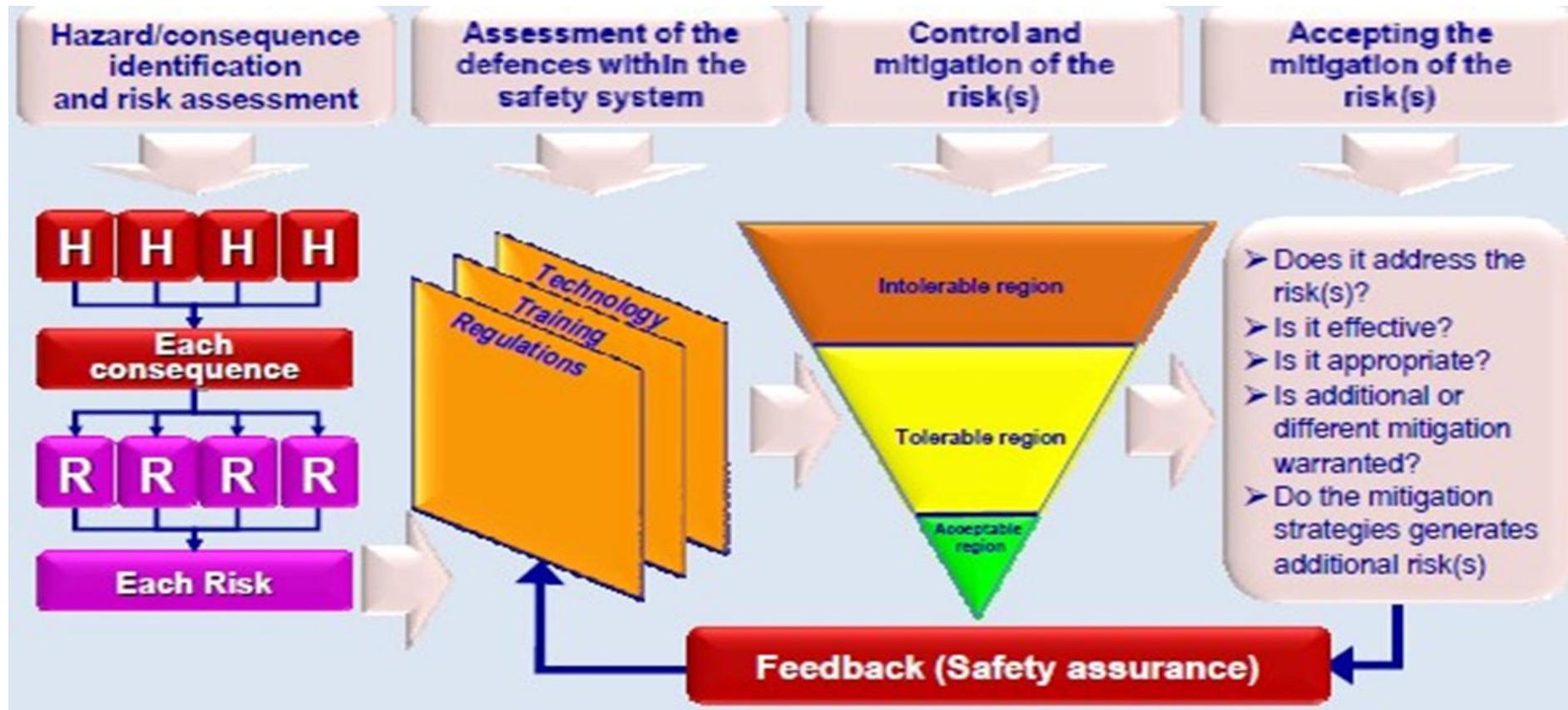
Hazard Identification highlight?

Hazard – condition, event or circumstance with a potential to cause harm or adversely affect operations.

Hazard Identification – Process of detecting conditions that may lead to safety events.



Management of Change typical flow

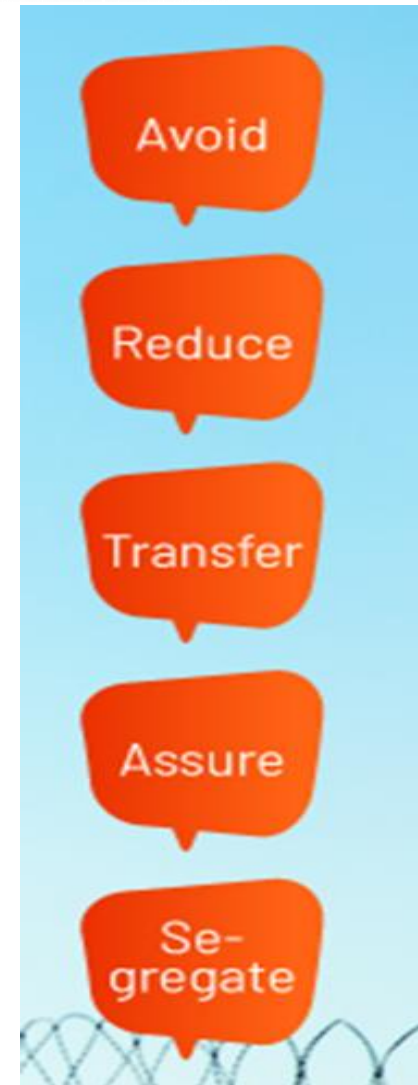


TYPICAL RISK MITIGATION AND ASSESSMENT APPROACH

CASE STUDY & GROUP ACTIVITY

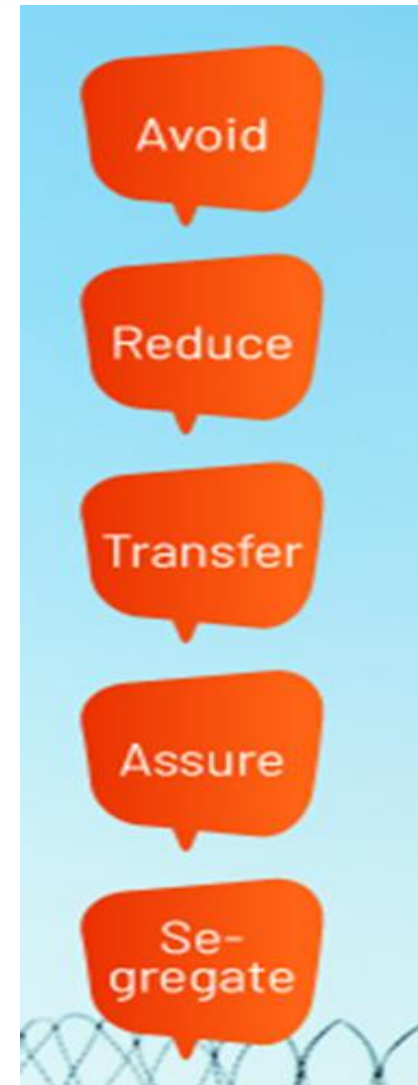
What then is a safety case?

- A Safety Case is not an additional or separate requirement to an SMS, but rather **documented evidence that the SMS activities associated with the change have been appropriately managed to maintain operations/activities are to an acceptably safe level.** Evidence of proactive safety risk management.
- A verifiable evidence that the detailed management of change process standard as an illustrated in **SA CATS 140.01.3 (21)(4)** has been complied with .
- A Safety Case is a document that provides substantial evidence that the system to which it pertains meet its safety objectives.
Demonstration of an organization's commitment to safety.



What then is a safety case?

- A Safety Case would provide **specific documented evidence** that shows that the organisation has not only identified and implemented the appropriate change management necessary to deliver new activity/equipment, but that the **associated risk assessments** were also conducted **in support of implementation and ongoing activities associated with that change**. Ensures compliance with regulatory requirements.
- **Safety Case is a tool for accomplishing safety assurance.** When applied correctly is breeds clear and amazing benefits to the organisation, such as reducing costs, reducing injuries, improve staff satisfaction etc. One main advantage of safety cases, is that is produces at your own time whilst developing the system, providing an opportunity for predictive SMS. Facilitates continuous improvement



Conclusion

- Changes should be planned and treated in a structured manner.
- Management of Change process should be based on a proven methodology.
- Unexpected changes could benefit from SRM methodologies.
- Management of Change must control risks during and after the change.
- Residual change risk must be monitored by safety assurance actions.
- Uncontrolled or untreated change risks could result in expensive events.
- Management of change process application is a contributor to a **positive safety culture**.



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