

# ***Safety Management System in practice***

## **Beyond SMS Theory**

### **Aircraft Maintenance Organisation Environment**

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# ① Introduction

## -Purpose Of This Presentation Is To;

- Share with the aviation community the progress made with the implementation of SMS (SMS In practice) within the AMO environment.
- To present the current challenges with the implementation of SMS within the AMO environment



## ② Human Factor in Aircraft Maintenance

- It is a fact that human factor contribute 80% to all aviation accident and serious incident.
- Maintenance errors are accountable for up to 25% of all aviation accident resulting from human error.



# 3. Progress made with SMS in practice.

- We have managed to improve the safety culture within the AMO environment:
- Incidents/Accident are now investigated with the different objective; not to apportion a blame.
- Hazards (Latent conditions) within the system are identified at early stage to eliminate or reduce accident.



# Progress made with SMS in practice.

## ❖ Traditional safety approach – Preventing accidents

- Focus on outcomes (causes)
- Unsafe acts by operational personnel
- Attach blame/punish for failures to “perform safely”
- Address safety concern exclusively
- Identifies:

WHAT?

WHO?

WHEN?

## ❖ *Safety Management system in practice*

WHY?

HOW?

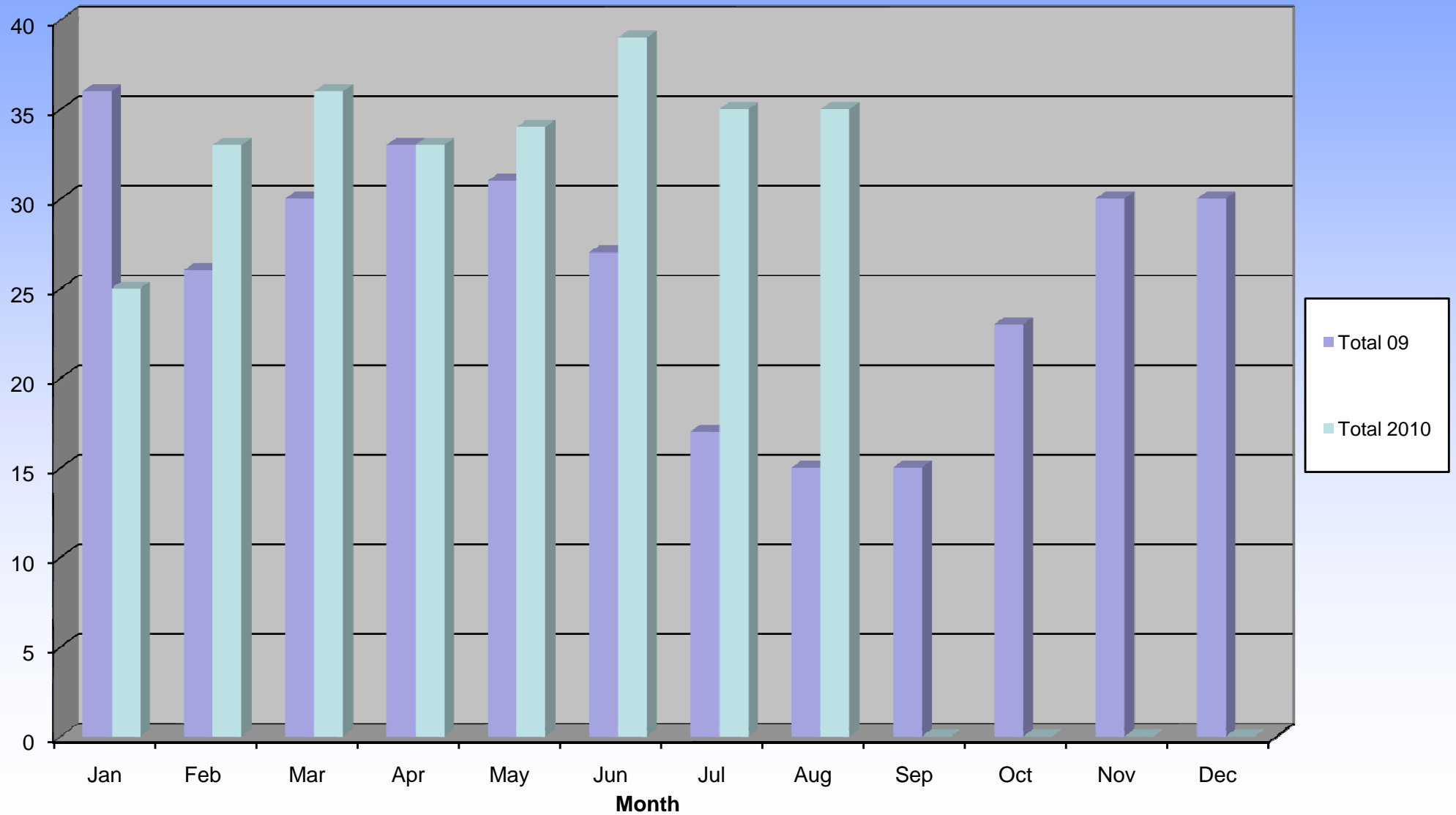
# Progress made with SMS in practice.

*South African Express Safety Risk Register*

Type of operation	Ref:	Specifics	Worst Case	Credible case	Existing defences to control risk(s) and risk index	Risk	Further action to reduce risk(s) and resulting risk index	Residual Risk	Root Cause Key
<i>Pax Flight</i>	3290	After takeoff the nose gear failed to retract. QRH actions were followed and aircraft had to return to base.	Significant reduction in performance	Excessive drag	<i>Preflight &amp; Checklist</i>	<i>2E</i>	<p><i>Landing gear pins identification flag were extended for more visibility.</i></p> <p><i>Answer the "HOW"</i></p>	<i>N/A</i>	12.5 & 7.22

# Progress made with SMS in practice.

Total Incidents/Hazards 09 vs 10



# Effective reporting

## Safety Bulletins for information

Maintenance Engineers are knowledgeable about the human, technical and organizational factors that determine the safety of the system as a whole.

## Willingness

Maintenance Engineers are willing to report their errors and experiences prior to any investigation.

## Established safety reporting

## Flexibility

There's a fine line between acceptable and unacceptable behaviour, however, maintenance engineers are able to report even in unusual circumstances such as pending disciplinary process

## Learning

We have established Safety Review Board, which assist in identifying causal factors and corrective action required. Safety summary report is then send to all company personnel for learning.

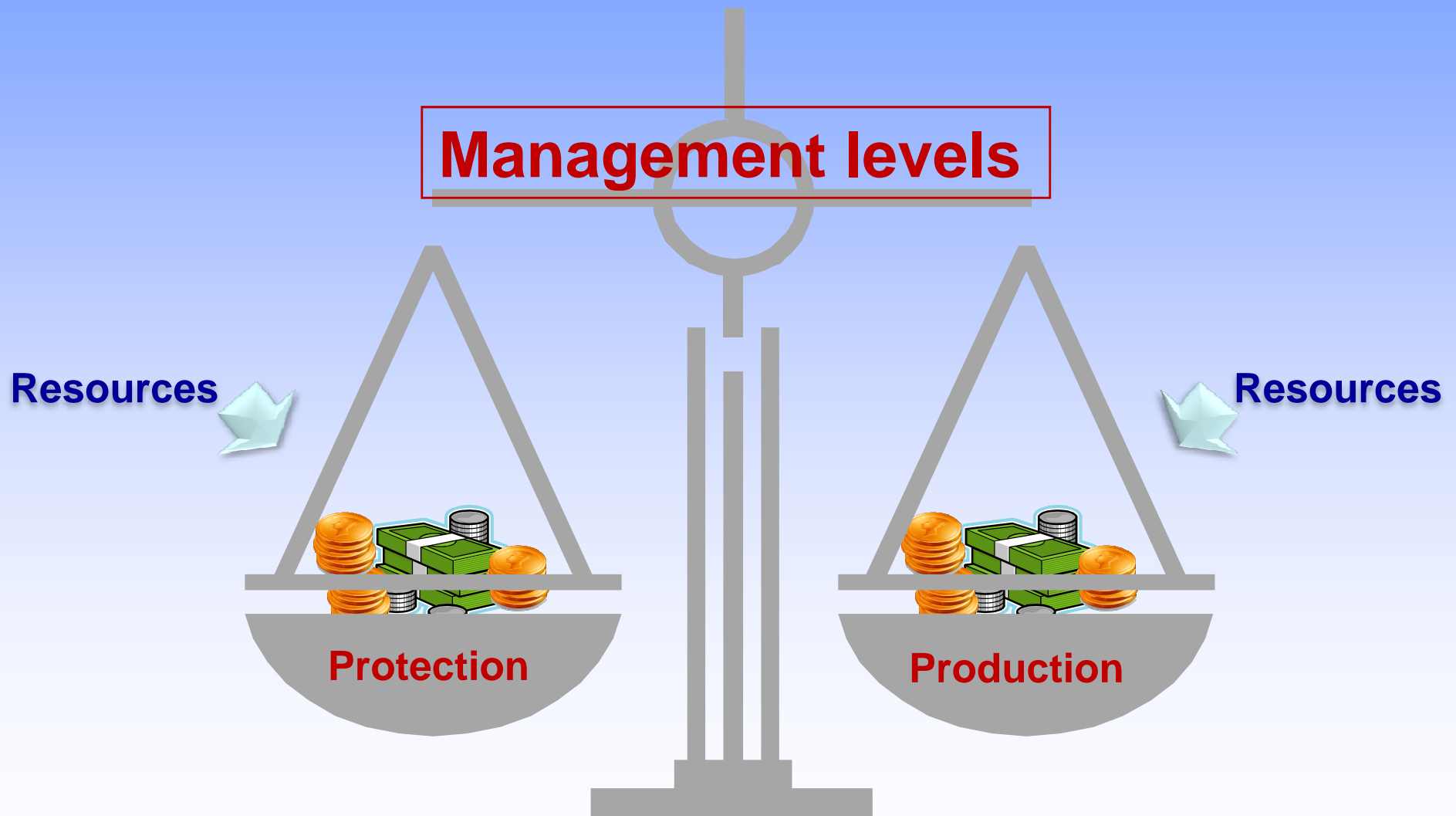
## Accountability

We have implemented SMS training programme, however all new employees are presented with SMS training prior to commencement of their duties, this is to encourage and make every one aware of safety responsibility within their area.

# 4. Critical Success path

- Like any other aspect of business, SMS demand that a plan be drawn up. The safety plan attempts to ensure that safety issues are listed, prioritized, are acted upon and that the resources (people, time, money, tools, processes) needed to do the job right are properly allocated.
- a balanced and realistic allocation of resources between **protection and production goals**, which supports the needs of the organization.

# Critical Success path



# 5. Current Challenges

- ✓ The care and nurturing of a SMS require significant levels of engagement between managers and employees.
- ✓ Safety management system is still not seen as one of core business function, only financial management, HR management, etc are been given attention.
- ✓ Blame culture when accident and incident occurs is of serious concern for SMS implementation,

# 6. Conclusion

- ✓ SMS has the potential to reduce regulatory burden in two respects: less regulation in terms of amount and prescription, and possibly less intervention – inspections, audits enforcement and litigation.
- ✓ The achievement of any or all of these benefits largely depends on the managerial acumen of a organization's executives and managers.
- ✓ Safety Management System enable aviation organizations to better manage risk and contribute to their bottom line.

# Thank You



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