



Safety Management System & RPBO – INDUSTRY WORKSHOP

Elevating SMS and RPBO Excellence

 Date 2025

 Location: Johannesburg

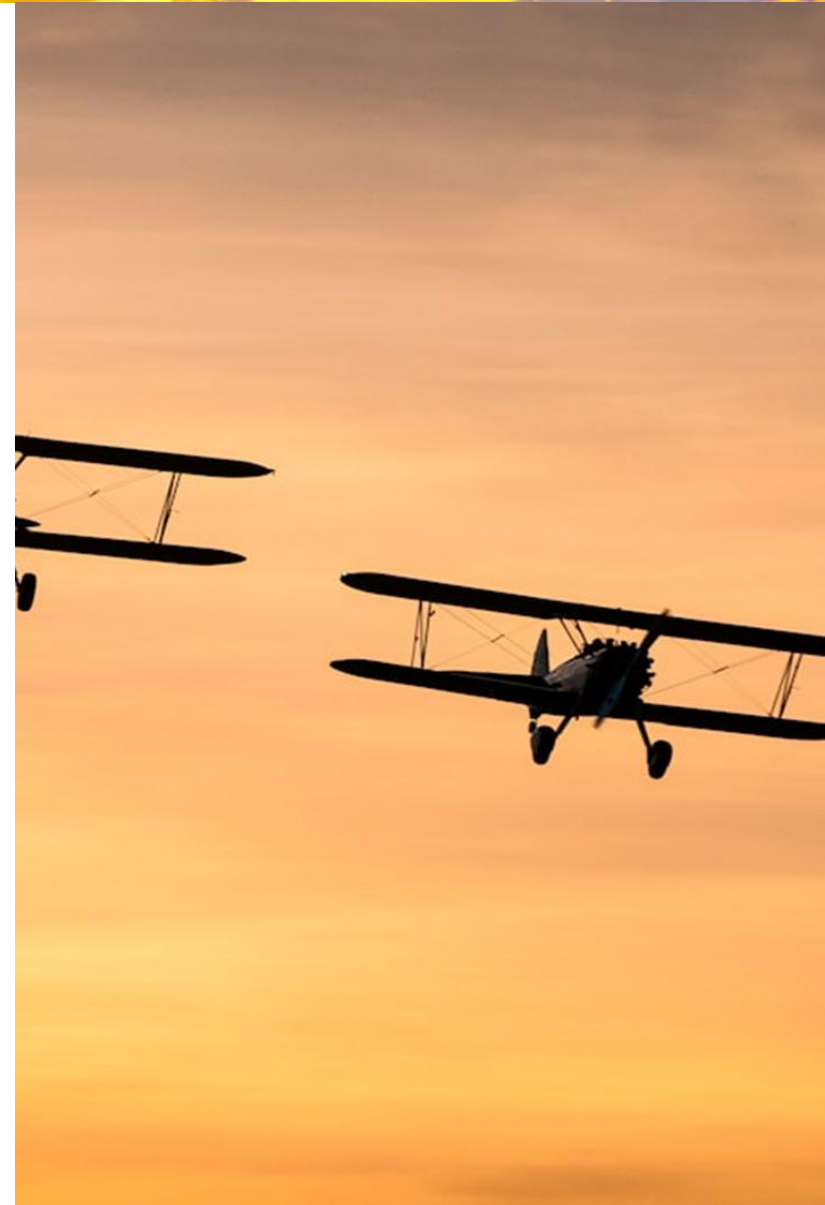


Topic title: Risk Based Oversight
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Overview of RPBO

Understanding Risk-Based Oversight

Risk-Based Oversight (RBO) is an approach adopted by the SACAA, focusing on evaluating an organisation's management of the risks associated with aviation operations. Its main goal is to ensure that safety measures align with an organisation's specific risk profile, thus enhancing overall safety in aviation. By concentrating on high-risk organisations, regulators can allocate resources more efficiently and effectively. This results in a proactive safety culture, ultimately leading to safer skies for all.





RISK-BASED OVERSIGHT (RBO):

A way of performing oversight, where:

- planning is driven by the combination of **risk profile** and **safety/security performance**; and
- **execution** focuses on the **management of risk**, in addition to **ensuring compliance**.



Risk Profile Elements

Element	Description	Importance
Size	Overall operational scale of the organization	Larger organisations might pose higher risks.
Complexity	The intricacies of operations and regulatory compliance	Complicated operations can lead to oversight challenges.
Past Incidents	History of safety events and compliance violations	Past incidents can indicate current operational risks.
Compliance Records	Adherence to previous regulatory requirements	Strong compliance reflects a commitment to safety.
Safety Measures	Implemented safety protocols and procedures	Effective safety measures directly reduce operational risks.

The left side of the slide features a vertical strip with a background image of two biplanes flying against a warm, orange-hued sunset sky. The biplanes are silhouetted, with their wings and fuselages clearly visible. The main content area is a light gray rectangle on the right.

Benefits of RPBO



Resource Efficiency

The RBO strategy maximizes the effectiveness and efficiency of regulatory resources. By identifying which organisations require the most attention, the SACAA can allocate their evaluation and oversight efforts more strategically. This resource optimisation allows for a more robust regulatory framework that adapts to changing circumstances, ultimately contributing to a sustainable aviation safety ecosystem.

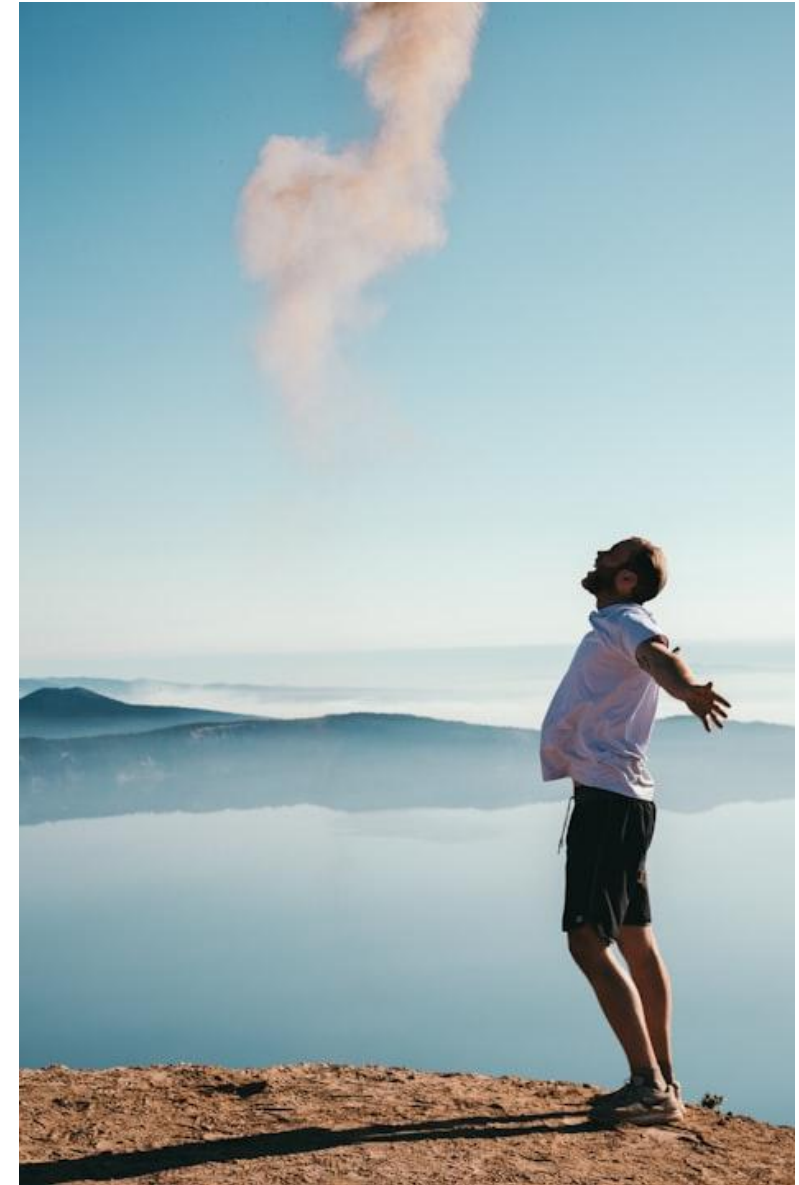
Enhanced Safety

Implementing Risk-Based Oversight leads to improved safety outcomes by prioritizing areas in need of additional monitoring. This targeted approach ensures that critical issues are addressed proactively. It focuses resources on organisations that pose a higher risk, which can significantly reduce the number of aviation incidents. By concentrating on safety, RBO contributes to a trustworthy aviation environment.



Project Status Overview

The RPBO project is navigating through crucial phases of development and implementation. It began with extensive research and benchmarking in 2020, followed by the establishment of the RPBO Model in 2021. As of 2023, we've entered the phases of assessment tool development and testing.





Timeline and Milestones

Year	Milestone	Description
2020	Research and Benchmarking	Initiated comprehensive study and external benchmarking.
2021	Model Development	Finalized the RPBO Model and established a dedicated team.
2022 & 2023	Assessment Tools	Developed and tested assessment tools, initiating data analysis.
2024	Pilot Program	Focused on data collection, cleaning, initial Risk Profiling

Pilot Project Details

Upcoming Tasks

Determining the final Risk Profiles of the organisations that had been part of the pilot project,

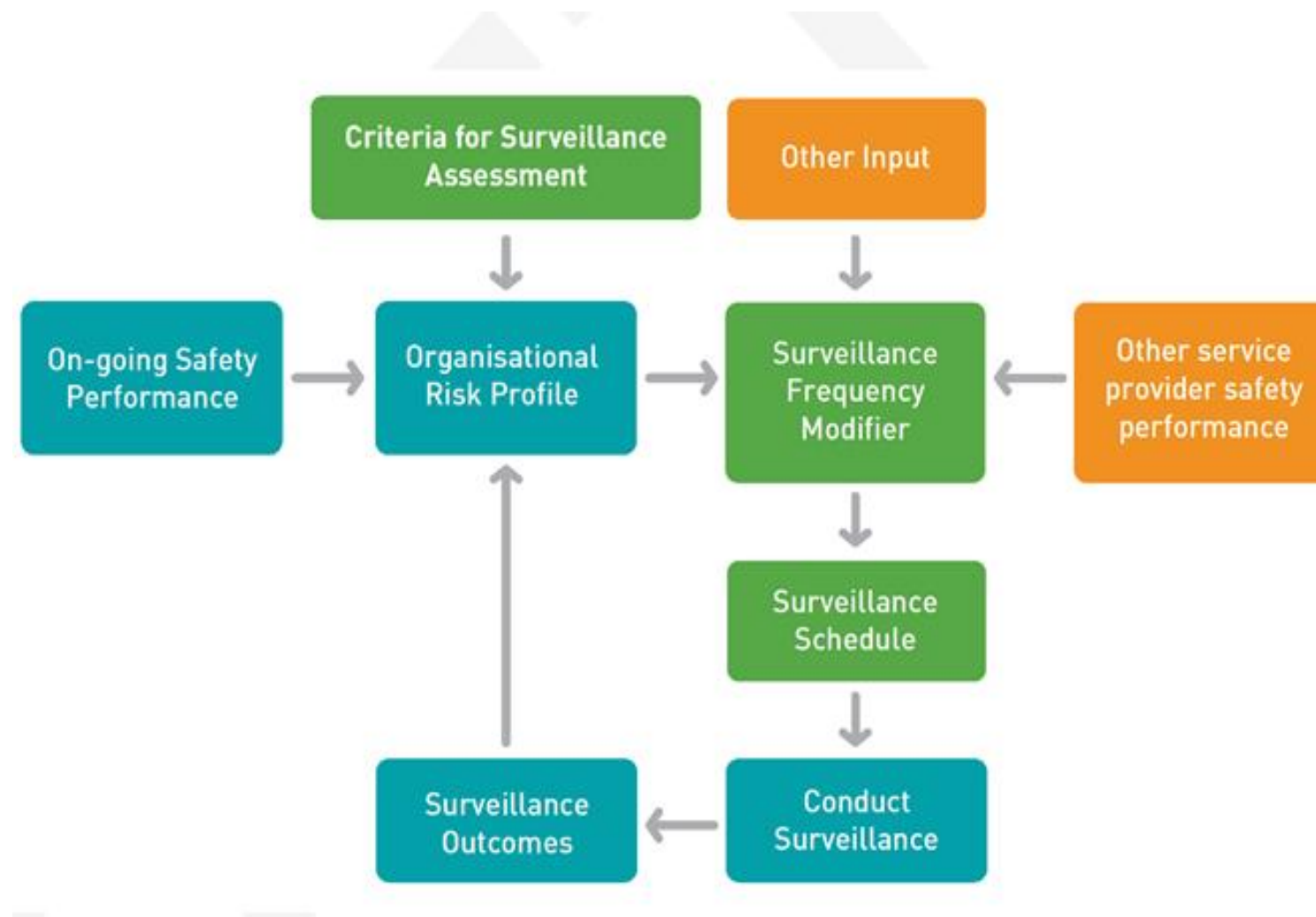
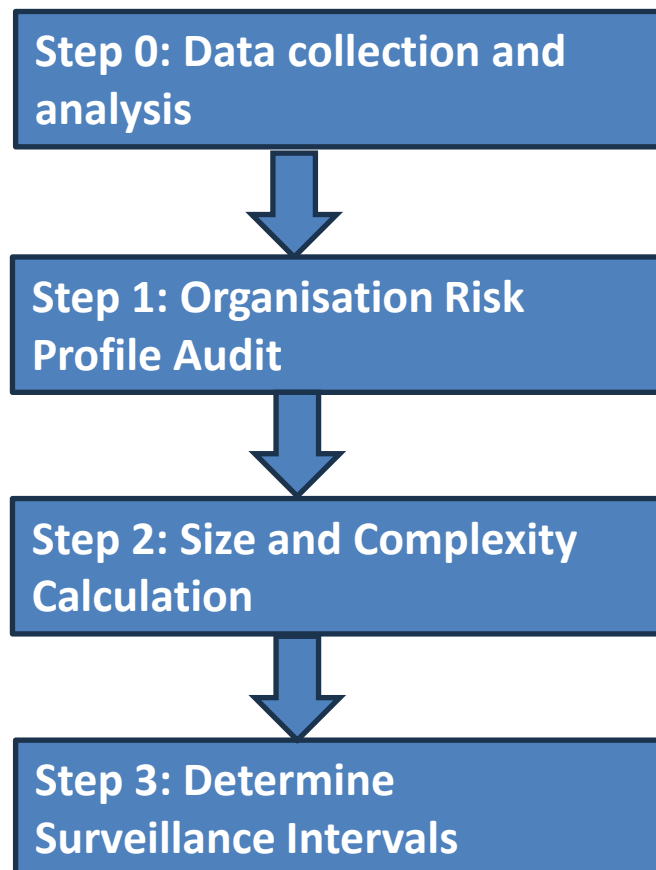
Consultation with the organisations prior to issuing the final risk profile

Planning the audit schedule in accordance with the risk profile

Current Status

Finalising the Risk Profiles

The main goal of the pilot project is to ensure practical application of the RPBO project's tools.





Data Analysis Progress

Data Collection

The **difficulty** in gathering necessary information to support the RPBO framework.

Data Cleaning

Data cleaning is essential to ensure quality and reliability of the outcomes from the analysis undertaken.

Data Analysis

Analysis of the collected data is necessary to derive insights and recommendations from the project activities.

Audit Preparations

Data collection, cleaning and analysis is the cornerstone of RBO, laying the groundwork for effective assessment of the pilot project's success.

1. Addition of Risk to the Risk Register
BOW -TIE DIAGRAM

Organisation:

Specific Organisation

Safety Performance Indicator
A specific measure related to the risk that shows a change in the likelihood or consequence

DATE:

CAUSES	EXISTING PREVENTATIVE CONTROLS	LINK TO CAUSE	Fail
What are the causes of the event you are analysing?	What is currently in place to prevent the event you are analysing from occurring?	Put the number of the cause which this control will prevent	Did this controll fail?

RISK

What is the event that you are analysing ?

Control Indicators
Metrics that can demonstrate a change in specific control effectiveness. A deterioration reflects a weakening of the control environment and is likely to result in an increased likelihood or consequence

EXISTING MITIGATION CONTROLS	LINK TO IMPACT	?
What is currently in place to reduce the impact ?	Put the number of the impact that this control should reduce	Did this mitigation Fail

IMPACTS
What was the impact of the event

Taking all controls into account

CONTROL EFFECTIVENESS

How effective were the controls to prevent this event from occurring

See control effectiveness ratings

RESIDUAL RISK RATING--See risk matrix to complete

LIKELIHOOD	How likely is this to occur
CONSEQUENCE	What is the scale of the impact
RESIDUAL RISK RATING	What is the risk left

CONTROL EFFECTIVENESS

How effective are the controls in place to reduce the impact

Residual Risk Calculator

Risk No	Category	Risk Event and Impac	Risk Cause	Controls	Control Effectiveness	Likelihood	Consequence	Risk Score	SCORE	Key Performance indicators
						3	5	15	3	



Consultation

The RPBO process will remain transparent, and the organisation being profiled will be consulted prior to the finalisation of their risk profile.

Organisational Data remains confidential.





Follow For Updates

Stay Informed

To keep abreast of the latest developments regarding Risk-Based Oversight, follow the South African Civil Aviation Authority on social media platforms and the RBO page on the SACAA website. Regular updates will be shared to educate the public and industry stakeholders about the implementation phases.

Join the Conversation

Engagement on social media serves as an essential tool for fostering a community dedicated to aviation safety. Share your thoughts, questions, and feedback regarding the upcoming changes in aviation oversight. Together, we can enhance aviation safety.





What comes next

We will continue the risk profile pilot project until all organisations have been profiled, correcting as we go.
Develop the sector risk profiles
Automate the RPBO process
Lastly develop performance-based regulations





Have questions? Send an email to rpbo@caa.co.za for further information.

Follow this link-

<https://www.caa.co.za/industry-information/rpbo/> for further information.