SOUTH AFRICAN CIVIL AVIATION AUTHORITY

THE NATIONAL AVIATION CONFERENCE 2023

THEME

Reimagining the future of
Aviation Safety and Security

Transition Towards Risk And Performance Based Oversight (RPBO)

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Content

- What is Risk and Performance Based Oversight (RPBO)?
- RPBO update
- Actions required and effects
  - Acceptance of the new system
  - Data needed for right decision
  - Collaboration in data-sharing
  - Behavioral changes
  - Benefits of the new system
- Transition period
- Training industry and the inspectorate

What is Risk and Performance Based Oversight?

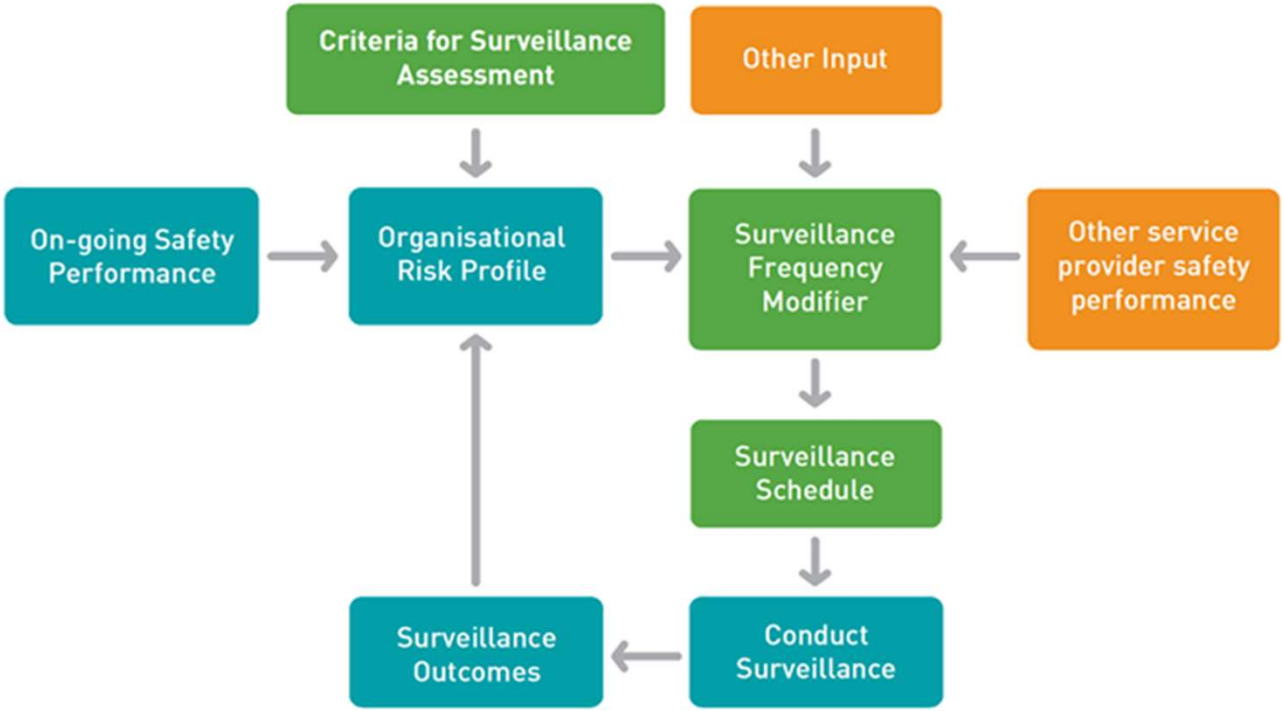
A way in which the SACAA performs oversight, where:

- oversight planning is driven by the combination of an organisation's risk profile and its safety/security performance

- the of the oversight execution focuses on the management of risk, in addition to ensuring compliance.

RPBO Update

RPBO Assessment Tool



RPBO Update

RPBO Assessment Tool

Scope of work performed / Category of aircraft		Special Services	Components	Engines	Aircraft
		a	b	c	d
Takeoff mass less than 1200kg and max 4 occupants	1	a1	b1	c1	d1
Non-pressurised and non-turbine powered	2	a2	b2	c2	d2
Pressurised or turbine powered	3	a3	b3	c3	d3
Takeoff weight greater than 5700 kg	4	a4	b4	c4	d4

Organisation Size-Service Complexity Matrix

Size of Organisation (Number of Employees)		Service Complexity			
		A	B	C	D
1>10	1	A1 - 1/1	B1 - 1/1	C1 - 1/2	D1 - 1/2
11>50	2	A2 - 1/1	B2 - 1/2	C2 - 1/2	D2 - 2/2
51>200	3	A3 - 1/2	B3 - 1/2	C3 - 2/2	D3 - 2/2
201>500	4	A4 - 1/2	B4 - 2/2	C4 - 2/2	D4 - 3/2
>500	5	A5 - 2/2	B5 - 2/2	C5 - 3/2	D5 - 3/3

RPBO Update

RPBO Assessment Tool

Organisation Size-Service Complexity Combined Value Categories

Bands	Value	Overall Complexity Level	Score Range
A1, A2, B1	1/1	1	30-60
A3, A4, B2, B3, C1, C2, D1	1/2	2	61-70
A5, B4, B5, C3, C4, D2, D3	2/2	3	71-80
C5, D4	3/2	4	81-90
D5	3/3	5	91-100

Organisational Risk Profile Categorisation

Overall Score Range	ORP Category
33-49	A (Most Desirable)
50-63	B
64-77	C
78-91	D
92-100	E (Least Desirable)

RPBO Update

RPBO Assessment Tool

Table A: ORP-Complexity Matrix

Current ORP Result (%)		Organisation Complexity				
		30-60	61-70	71-80	81-90	91-100
		1	2	3	4	5
33-49	A	1A	2A	3A	4A	5A
50-63	B	1B	2B	3B	4B	5B
64-77	C	1C	2C	3C	4C	5C
78-91	D	1D	2D	3D	4D	5D
92-100	E	1E	2E	3E	4E	5E

Table B: Next Surveillance Interval Criteria

ORP-Surveillance Index Bands	Next surveillance interval
1A	30 mths
1B, 2A	24 mths
1C, 2B, 3A	18 mths
1D, 1E, 2C, 2D, 2E, 3B, 3C, 3D, 4A, 4B, 4C, 5A, 5B	12 mths
3E, 4D, 4E, 5C, 5D	6 mths
5E	3 mths

Frequency

Score Range	Adjustment Based on Additional Assessment Result
06-09	No adjustment needed
10-12	Increase surveillance by 20%
13-15	Increase surveillance by 50%
16-18	Increase surveillance by 100%

Actions Required and Effects

Acceptance of the new system

- Compliance Based Oversight is no longer effective
- Trust of the public
- Introducing safety culture
- Incorporation of flexibility into oversight
- No need for more, but better oversight
- Overregulation and safety gaps

Actions Required and Effects

Data needed for right decision

- Data is essential to support the RPBO process; the sources of information must be carefully identified in order to obtain the right information.
- The collection of data allows for the identification of Safety Performance Indicators (SPI), as well as the set-up of associated targets. In this way it becomes possible to measure and monitor the level of safety performance. In addition, information on the effectiveness of the safety barriers (mitigation strategies for risks) can be continuously gathered.
- Finally, the data quality is crucial to support proper decision-making, otherwise outcomes can be misleading.

Actions Required and Effects

Collaboration in data-sharing

- Data sharing is also important, as it allows the availability of a more comprehensive set of data.
- RBO relies on data collection and safety modelling as part of the effective Management System of the authority and a mature Management System within regulated entities.
- To ensure that not only domestic data is considered . Data sharing in the AFRI – region is also taken into consideration

Behavioral Changes

Behavioral changes

In the light of the transition towards Performance Based Oversight and safety culture implementation, the transition into people's behaviour is necessary as well.

- Open communication
- Improved Industry engagement
- Improved data sharing
- Trust in the system

Actions Required and Effects

Key Benefits of the new system

- Improved safety performance
- Value-added risk identification
- Proportionate levels of oversight
- Improve relationship with industry by a two way process
- Improved resource to risk
- Collaborative assessments and information sharing

Transition Period

Even though the development phase has been completed, the implementation of RBO is not yet finalised.

- Risk Profiling is initially scheduled for every six (6) months. From there onwards it can then be determined, if the Risk Profile assessment intervals should be increased or decreased.
- The data collected to date, is not enough for a clear and true Organisation Risk Profile to be compiled. It is therefore proposed that a hybrid surveillance audit principle be followed for the next two(2) financial years.

Training Industry and Inspectorate

Initial and continuous training should be given to the industry as well as inspectors implementing RBO, to cover:

- Advantages of RPBO
- Development of trust culture when interacting
- Use of expert judgment, especially when safety performance and “gut feeling” are blended
- Use of RBO-specific tools available at the competent authority.

Support and coaching will be available during the initial phase of RBO deployment.

Thank you for your time!