SOUTH AFRICAN CIVIL AVIATION AUTHORITY

Risk-Based Oversight WEBINAR

Sector Risk Profiling

DATE **14 May 2021**

TIME **10h00 – 12h00**

via

Microsoft Teams

Presented by: Project Lead, Cathy Teague

Keeping you safe in the sky

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Way forward

Our approach

Start with 1 domain in ASO (FO) and 1 domain in AvSec, gain experience and then expand the practices to other domains.

First steps to take

Determine Sector Risk Profile (All sectors)

By nature, an organisation has its own risk profile, derived from the nature of its specific operations, e.g., the location of an airport situated in a difficult environment, or the type and age of aircraft operated. These individual risk profiles can be grouped into families, with similar types of operations or Sector Risk Profile (SRP).

Sector Risk Profiling (SRPs)

- We want to use Sector Risk Profiling (SRPs) to examine the underlying influences on safety within a specific aviation sector.
- We will be using different approaches and methods to capture the knowledge, experience and perceptions of as many participants as possible within a particular sector.
- From this we want to form a risk matrix for that specific sector.

Sector Risk Profiling (SRPs) (cont.)

Factors that will be considered, will be:

- safety trends,
- a wider analysis of the aviation industry,
- the impact of new technologies,
- emerging performance trends, and
- the consequences of an accident or incident in a physical, social and economic context.

SRPs enable the sector to identify clear risk statements that apply to them and determine what they can do to minimise that risk. The idea is that by addressing individual risk elements in a sector, overall safety can be improved.

Sector evaluation and allocation

- An important aspect of sector risk profiling is understanding that the participants within a sector are well placed to evaluate the risks they face. Accordingly, the sector risk profiling method is based around **capturing** the knowledge, experience, and perceptions, of as many participants as possible from within the sector.

- The resulting mix of fact and opinion is **combined** with evidential data, such as industry studies and demographics, and expressed as a set of risk statements that describe the risk.

- The sectors will be **determined** first naturally by virtue of their nature - Training, Aerodromes, Security, Maintenance, Manufacture or design, and Flight Operations.
- From there a further smaller sector allocation will be done, using size and complexity calculations.

Risks specific to groups

- Sectors will be determined firstly by their nature.
- This is to ensure that we consider the risks that are specific to a certain group or area, eg. in agricultural environment, operators deal with helicopters, fixed-wing aircraft and RPAS.
- Some risks may be inherent to all, but some will be specific to the nature of the operation.
- Some are large operations, diverse in their applications, and some are a one-man operation.

Where Risk-Based Oversight only focuses on organisations that receive an approval, sector risk profiling will consider the knowledge and experience of everyone who has any stake within the specific sector in question.

Safety and Security Focus Areas (Example)

Safety or security risks to be mitigated to improve the aviation system:

1. Loss of control in flight — the risk of aircraft divergence from normal flight parameters or paths, for reasons of weather, malfunction, automation, etc.;

2. Runway excursions — the risk associated with runway take-offs and landings;

3. Airborne conflicts — increasing concerns over reported airspace incidents in controlled and uncontrolled airspace, with the potential for airborne conflicts and resulting mid-air collisions;

4. The helicopter sector — various incidents and accidents suggest the industry is not in a good position regarding its safety performance;

Safety and Security Focus Areas (cont.)

5. Security threat level and responses — the SACAA needs to be able to respond to changes in threat levels with clear decision pathways and responsibilities and mechanisms for new or additional security controls;

6. International air cargo security — depends on a robust and trusted supply chain system. Informed, targeted interventions sustain levels of compliance through the air cargo supply chain and retain wide stakeholder assurance about the security applied to international air cargo; and

7. Smart security — to be well-informed, agile thinkers, capable of evaluating options in response to changing situations; resilience needs to be built into the current aviation system to meet future demands. This involves thinking smarter, enhanced passenger facilitation and optimised utilisation of equipment and staff.

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As the SACAA seeks to be informed, risk-based, and targeted in its regulatory and non-regulatory interventions, resources and action plans have been organised around each focus area to improve sector safety performance.

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What is required from the Aviation Industry?

The risk profile we create for a sector will include the knowledge, experience, and perceptions of the sector as well as evidential data.

In this we would like to request the industry to work with the team to develop the sector risk profiles.

We'll engage the industry through workshops and surveys, identifying hazards and risks relevant to the sector. Further engagement with industry and identification of risk owners and possible controls and treatments.