



IOSA Risk-based Approach Reference Paper

This paper serves as a reference point for all IATA employees that are involved in IOSA-related communication to external stakeholders.

IOSA Today

1. The IATA Operational Safety Audit (IOSA) is the global industry standard for airline operational safety. The audit uses a standardized checklist which assesses an airline's conformity with the IOSA standards at two-year intervals.
2. IOSA has been a mandatory requirement for membership in IATA since 2006. Safety data confirms that in aggregate, airlines on the IOSA registry have a lower accident rate than airlines that are not on the IOSA registry.
3. IATA has as a strategic objective to continue reducing the industry's already low accident rate. Among leading oversight programs, it is believed that additional improvements in safety assurance and oversight can be achieved by focusing on pertinent safety risks.
4. Concurrently, in today's dynamic environment, airlines need an IOSA audit that focuses on areas of potential safety risks at their airline rather than applying a one-size fits all approach. Airlines and regulators alike, also expect more insights when evaluating their codeshare partners' audit results.
5. In addition, airlines are in need of more digital information management in the program.

Moving IOSA Forward

Airline needs and IATA's objective to further reduce the industry accident rate will be addressed through the introduction of a risk-based approach under which audits will be tailored to each airline's risk profile.

This will increase the effectiveness of the audit and contribute to the overall industry goal of reducing the accident rate.

The process will be supported through a more mature IT solution that will allow the airline to provide information relevant to the risk-based audit. It will be supported by the IATA Global Safety Risk Management Framework.

It will take approximately three years to transition all airlines to the risk-based approach. As part of this activity, the auditing process will gradually be brought in-house.

Risk-Based Approach...

- ... moves away from the 'one-size-fits-all' approach, and therefore better targets an operator's safety-relevant areas;
- ... is going to add value to the airlines, by auditing beyond compliance and looking for maturity;
- ... will improve safety levels through a more comprehensive assessment of the airlines' safety practices; and
- ... is in line with regulators desire to move beyond 'box ticking'

What are the benefits of a Risk-based Approach?

1. Tailored Audit Scope

The audit scope will be tailored to the key standards and recommended practices most pertinent to the specific airline undergoing the IOSA. As such, the airline can concentrate its safety efforts where they are needed and not on areas with low criticality.

Figure 1 – Illustration of Audit Scoping

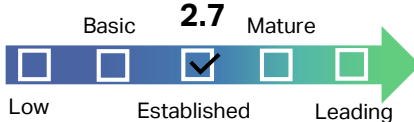
Audit Scoping	Today	➔	Future
<ul style="list-style-type: none"> Worldwide runway excursion rate has been increasing. An operator has been demonstrating conformity with a non-critical ISARP for several consecutive audits. 	<ul style="list-style-type: none"> All ISARPs are audited regardless of their universal criticality. 		<ul style="list-style-type: none"> Audit standards are prioritized in regular intervals. In this example, ISARPs related to runway excursions are identified as high priority and audited in-depth.
	<ul style="list-style-type: none"> All ISARPs are audited regardless of their criticality for the operator. 		<ul style="list-style-type: none"> The Audit scope is tailored to the operator's profile and audit history. Audit standards with low criticality may be audited at lower frequency to allow focus on high-criticality ISARPs.

2. Safety Maturity Assessment

The IOSA maturity assessment will introduce a more structured and comprehensive way of providing the airline with an evaluation of its relevant safety systems and programs. This will further assist airlines in determining the next steps in improving their operational safety.

In addition to the conformity assessment with the IOSA standards, the maturity assessment will provide the operator with a nuanced diagnosis of its safety relevant systems and programs.

Figure 2 – Illustration of Maturity Assessment

Maturity Assessment	Today	➔	Future
<p>FLT 2.2.14</p> <p>'The Operator shall ensure flight crew members complete Operator familiarization training prior ...'</p>	<p>Assessment Method (on each ISARP)</p> <p>Conformity <input checked="" type="checkbox"/></p> <p>Nonconformity <input type="checkbox"/></p>		<p>Assessment Method (on selected ISARPs and Programs)</p> <p style="text-align: center;">Basic 2.7 Mature</p>  <p style="text-align: center;">Low Established Leading</p>

3. Higher Integrity Audit Results

Moving to a risk-based approach will lead to incremental improvements of operators' safety management systems and the industry's safety performance through the focussed assessment in critical areas. Improved service delivery will further increase audit integrity.