Risk-Based IOSA
The Business Model
A profound business model change will lead to long-term sustainability

**Challenge**
Affordable and value-add audits
User friendly access to current information

**Solution**
Audit process tailored to airline
Improved user interfaces

**Challenge**
Financial autonomy and sustainability
Auditor standardization and performance
Ability to innovate

**Solution**
Phase out AOs and insource production of audits
Recruit and train IOSA Auditors on freelance basis

**Challenge**
Production capacity
Digital Maturity

**Solution**
Transform and scale up IOSA organization
Develop IT infrastructure
Transition Plan

Transition Plan supports timely scaling up and mitigation of risks

- 2022 trial audits will be performed to test audit methods and audit management process
- AOs will remain until end of 2024 to perform conventional IOSA audits
- 2025 onwards fully insourced model supporting over 200 IOSA audits per year

Projected Transition

<table>
<thead>
<tr>
<th>Year</th>
<th>Audits IATA</th>
<th>Audits AOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>176</td>
<td>0</td>
</tr>
<tr>
<td>2023</td>
<td>197</td>
<td>20</td>
</tr>
<tr>
<td>2024</td>
<td>108</td>
<td>100</td>
</tr>
<tr>
<td>2025</td>
<td>219</td>
<td>0</td>
</tr>
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</table>
Risk-based IOSA

Risk-based approach will contribute to reduce accidents rates

Today

- Standard audit checklist for all operators in all audits
- Compliance-driven auditing
- Static IOSA reports and forms

Tomorrow

- Tailored audit scope focusing on pertinent safety risks
- Maturity assessment for SMS and safety relevant programs
- Digital reporting, risk engine

Contribute to consecutive reduction in accident rates
Risk-based Audit Scoping

Audit scope will be reduced to critical standards, freeing up valuable auditing time

Industry Standards prioritization

- Accident links
- Conformity Levels
- GSRMF
- SMEs

Operator Audit Scoping

- Operator-specific Events
- Operator's Audit History
- Operator's Profile

- Tailored audit scope for each Operator
- Frees up time to increase depth of auditing of high priority requirements
- Allows for maturity assessment of critical systems and programs
## Risk-based Audit Scoping

### Away from the one-size fits all approach

<table>
<thead>
<tr>
<th>Audit Scoping</th>
<th>IOSA</th>
<th>Risk-Based IOSA</th>
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</thead>
<tbody>
<tr>
<td>- Worldwide runway excursion rate has been increasing.</td>
<td>- All ISARPs are audited regardless of their universal criticality.</td>
<td>- ISARPs prioritized in regular intervals. In this example, ISARPs related to runway excursions are identified as high priority and audited in-depth.</td>
</tr>
<tr>
<td>- Operator has been demonstrating conformity with a non-critical ISARP for several consecutive audits.</td>
<td>- All ISARPs are audited regardless of their criticality for the operator.</td>
<td>- Audit scope tailored to Operator’s operating profile and audit history.</td>
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<tr>
<td></td>
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<td>- ISARPs with low criticality may be audited at lower frequency to allow focus on high-criticality ISARPs.</td>
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</tbody>
</table>
Maturity Assessment

A deeper evaluation of relevant safety systems and programs

Maturity Stage Cycle

- Leading
- Mature
- Established
- Basic
- Low

Assessment beyond conformity through maturity levels
Deeper assessment of SMS and operational activities
Recommendations for operators

Maturity Assessment of following areas

SMS
- Management & Control
- Safety Assurance & Monitoring
- Safety Risk Management
- SMS Training & Communication

Operating Safety Maturity
- Crew Training
- Flight Data Analysis
- Operation Control
# Maturity Assessment

## Example

<table>
<thead>
<tr>
<th>Assessment Method (on each ISARP)</th>
<th>IOSA</th>
<th>Risk-Based IOSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conformity</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Nonconformity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FLT 2.2.14**
The Operator shall ensure flight crew members complete training and, when applicable, an evaluation in crew resource management (CRM), including Threat and Error Management, using facilitators that have been trained in human performance and human factors principles.

Risk-Based IOSA

- **Conformity**: Basic
- **Nonconformity**: Established

Assessment Method (on selected ISARPs and Programs)

- Basic
- 2.7
- Mature

- Low
- Established
- Leading
Benefits of Risk-based IOSA

- Tailored and reduced Audit scope focusing efforts where needed the most
- Improved audit methods through maturity evaluation
- Improved management and standardization of Auditors
- Safety insights captured to deliver safety improvements and reduction of global accident rates
- New insights through improved audit report
- Long term sustainability of IOSA program through direct management of insourced products
Risk-based Approach – Project Roadmap

Comprehensive project approach to ensure successful delivery

Q1 2022
- Project plan and organization
- Transition & communication plan
- Validation of concept (internal/external)
- Finalize operator questionnaire with IOC

Q2 2022
- Develop business requirements and taxonomy
- Adjust Program’s legal and insurance frameworks
- Conduct RFPs
- Draft test standards manual

Q3 2022
- Design beta-test audits and train auditors
- Onboard airlines for test
- Onboard IT vendors

Q4 2022
- Launch 3-5 beta-test audits
- Develop required IT infrastructure
- Develop Program SOPs

2023
- Refine and validate concept through feedback from beta-test audits
- Roll out Risk Based Audits to 20 operators

Q1 2023
- Project plan and organization
- Transition & communication plan
- Validation of concept (internal/external)
- Finalize operator questionnaire with IOC
Thank you