SMS effectiveness within Performance Based Oversight

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UK Civil Aviation Authority
Safety Management Based Oversight principles

- Risk Management at the centre of everything we do
  - Outcome focussed

- Total System Approach
  - Integrated across the CAA
  - Integrated across the Aviation System

- Best use of our resources
  - Proportionate
  - Targeted
Our model

The Regulated Entity
1. A significant enterprise within the Total System
2. A Project (e.g., Olympics).

Oversight Delivery

Oversight Manager

Oversight Plan

Managed by our Safety Review Board

Knowledge Base

Risk Picture Managed by our Safety Action Group

Safety Policies and Strategy

- Known Risks
- SMS Maturity
- MORs
- Audits (compliance)
- Safety performance
- Other Intelligence
- Rule set
Performance Based Oversight in practice

Performance Based Oversight – Core Regulatory Decision Making

INTELLIGENCE
- Data
- Intelligence
- Rules
- Risks/Issues
  - What CAA knows
  - What others know
- Planned changes
- Incidents/Accidents

CAA View
- Risk List (current & future)

RISK
- Entity View
- Identify Options for Action (cost/benefit)

OUTCOME
- Agree Desired Outcomes

ACTION
- Our Actions
- Entity Actions
- Total System Actions

CHECK
- Compliance and Performance
- Proactive Leading Indicator Assessment
- Actions Delivered & Measured

FEEDBACK
- CAA Risk List
- Performance Comparison
- CAA Governance of Safety
- International influence
- Unregulated sectors

Feedback - share knowledge and lessons
How does SMS effectiveness fit into Performance Based Oversight?

- SMS oversight and Performance Based Oversight principals are complementary.
- Requires similar skills and competencies.
- Both focus on safety performance and risk management.
- Is the organisation managing its risk effectively?
- Is it measuring and monitoring its safety performance?
- Does their risk picture match ours?
SMS Evaluation Tool

<table>
<thead>
<tr>
<th>COMPLIANCE + PERFORMANCE</th>
<th>SMICG</th>
<th>SMS Evaluation System Evaluation Tool</th>
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</thead>
<tbody>
<tr>
<td>2.1.1 The organisation and near misses</td>
<td></td>
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<td>2.1.2 The organisation assessed the hazards and</td>
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<td>2.1.3 The safety report and any actions taken</td>
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<td>2.1.4 Safety investigation and potential</td>
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<td>2.1.5 Safety reports</td>
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Safety Management System
International Collaboration Group
Establishing the risk picture

<table>
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<tr>
<th>Risk Description</th>
<th>Mitigation actions</th>
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<thead>
<tr>
<th>Significant 7 Risk</th>
<th>How is it being addressed?</th>
<th>How is being measured?</th>
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<tbody>
<tr>
<td>Loss of Control</td>
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<td>Fire</td>
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# SMS Evaluation Summary

<table>
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<tr>
<th>Effectiveness Index</th>
<th>Initiating</th>
<th>Present and suitable</th>
<th>Operating</th>
<th>Effective</th>
<th>Excellence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Overall SMS</strong></td>
<td>The SMS is still at the implementation stage</td>
<td>There is a documented SMS that is appropriate to the size nature and complexity of the organisation.</td>
<td>The systems and processes of the SMS are operating.</td>
<td>The SMS is working in an effective way and is striving for continuous improvement.</td>
<td>The organisation is an industry leader and embraces and shares its best practice.</td>
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<tr>
<td><strong>Safety Policy and Objectives</strong></td>
<td>The SMS is still at the implementation stage</td>
<td>Safety Policy and Objectives have been defined and published</td>
<td>There is a safety policy in place and Senior Management are committed to making the SMS work and is providing appropriate resources to safety management.</td>
<td>Senior Management are clearly involved in the SMS and the Safety Policy sets out the organisations intent to manage safety and is clearly evident in the day to day operations</td>
<td>The organisation is an industry leader and embraces best practice</td>
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<tr>
<td><strong>Safety Risk Management</strong></td>
<td>The SMS is still at the implementation stage</td>
<td>There is a process in place to identify hazards and manage risks</td>
<td>The hazard and risk registers are being built up and risks are starting to be managed in proactive manner.</td>
<td>The organisation is continuously identifying hazards and understands it biggest risks and is actively managing them and this can be seen in their safety performance. Safety Risk management is proactive and predictive.</td>
<td>Key Personnel throughout the organisation are aware and understand the risks relative to their responsibilities and are continuously searching out new hazards and risks and re-evaluating existing risks.</td>
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<tr>
<td><strong>Safety Assurance</strong></td>
<td>The SMS is still at the implementation stage</td>
<td>SPIs have been identified and plan is in place to assess the SMS for effectiveness.</td>
<td>The Organisation has established SPIs that it is monitoring and is auditing and assessing its SMS and its outputs</td>
<td>The organisation assures itself that is has an effective SMS and is managing its risk through audit, assessment and monitoring of its safety performance.</td>
<td>The organisation is continuously assessing it approach to safety management and is continuously improving its safety performance and seeking out and embracing best practice.</td>
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<tr>
<td><strong>Safety Promotion</strong></td>
<td>The SMS is still at the implementation stage</td>
<td>All staff have been trained as appropriate to their roles and safety responsibilities and accountabilities</td>
<td>The organisation has trained its people and has several mediums for safety promotion that it uses for passing on safety information</td>
<td>The organisation puts a considerable resource and effort into training its people and publicising its safety culture and other safety information and monitors the effectiveness of its safety promotion</td>
<td>In addition the organisation provides training and safety promotion to its contracted service providers and assesses the effectiveness of its safety promotion.</td>
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Our experiences so far

- Need for new tools
- Need to define the scope of the organisation
- Real benefits of bringing internal groups together to discuss the ‘organisation’
- Data – Need to gather ‘valid intelligence’ but ‘inspector judgement’ is important
- Keep focussed on risk – our view and their view and the bigger picture
- Reminder that compliance is still important
- Integrating oversight of Human Factors and SMS into performance based oversight
1. Loss of Control
2. Runway Excursion
3. Controlled Flight into Terrain
4. Runway Incursion
5. Airborne Conflict
6. Ground Handling
7. Fire

Questions?