

Safety Management

Safety Management in Small Aviation Organizations

Presented By: FAA Aviation Safety, Flight
Standards Service

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Federal Aviation
Administration



Four questions for management

- What could be the cause of your next accident?
- How do you know this?
- What are you doing about it?
- Is it working?

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What does SMS provide?

- **Safety Management Systems need to provide managers with information to make **decision makers aware** of:**
 - Where **hazards** are in their operations
 - What **controls** are needed
 - **Effectiveness** of their controls
- **These processes do not need to be expensive or complex.**
- **Effectiveness, not sophistication.**

As a Small Operator

- Actively look for safety issues in your operations, products, or services;
- Develop corrective actions to reduce the risks those safety issues present; and
- Monitor to be sure that you have appropriately controlled those risks.

An SMS does not have to be complicated to be effective



Small Operators Should Consider Complexity

Operating environment	Number of aircraft movements
Types of operations	Surrounding terrain and levels of equipment at aerodromes
Fleet complexity	Density and complexity of traffic for ANSPs
Number of locations (bases)	Extent of contracted activities
Maintenance organizations; number of ratings, types of product ratings, specialized work, technologies employed, number of customers and sub-contractors	Number of runways and taxiways at aerodromes
Types of products and parts designed/manufactured	

SMS in the U.S.

- **FAA has two levels of SMS requirements:**
 - **Mandatory** SMS: 14 CFR part 5, mandatory for part 121 AOC holders
 - **Voluntary** for other certificate holders (i.e. part 135 AOC holders, AMOs, ATOs)
- **Both have identical process requirements.**
- **Both are considered, “acceptable to the State (U.S. FAA).**

FAA SMS Standards

- FAA SMS standards are, “process based.”
- Specific requirements are specified as **management responsibilities.**
- Specific **processes** are required in the areas of Safety Risk Management (SRM) and Safety Assurance (SA).
- FAA SMS standards follow the **ICAO SMS framework.**



Flexible and Scalable Standards

- **FAA SMS standards do not specify: organizational structures (e.g. departments, committees, groups)**
 - Positions (e.g. Safety Officer)
 - How processes are implemented (e.g. specific procedures)
 - tools (e.g. specific checklists, risk matrices, etc.)
- **Certificate holders design processes that fit their systems, operational environments and business models.**

As a Regulator to Small Operators

SMS Implementation

1. Safety Policy and Objectives
2. Safety Risk Management
3. Safety Assurance
4. Safety Promotion



Looking Forward – Change Management

- **Looking forward – change management.**
- **What changes are we about to make (new aircraft, new business arrangements, changes to procedures, etc.)?**
- **What could go wrong that might cause an accident?**
- **What can we do about it (equipment, procedures, training, supervision)?**



Here and now

- **Supervision (e.g. dispatch procedures, post-maintenance inspections, crew/team briefings and shift/crew change processes.**
- **Internal audits (periodic checking of critical processes and procedures)**
 - Keep it simple – what do we need to know?
 - Keep it focused – don't collect data for the sake of data.
- **Performance assessment – are the processes working?**

When things go wrong

- Internal Investigations
- What happened?
- **Human error** is never the **root** cause, it's a description of what happened.
- What **caused** the error?
 - Training
 - Procedures
 - Supervision
 - Human-machine interfaces

As a Regulator to Small Operators

- **Key to successful SMS is to minimize the regulatory burden.**
- **The more willing an organization is to adopt SMS, the more effective that SMS is likely to be.**



FAA Implementation Support for Small Operators

- Organizations entering the process (mandatory or voluntary) are provided with written and audio-visual materials.
- On site visits (3 days) with an Implementation Support Team (IST) from the SMS Program Office, tailored to the service provider.
- Recurrent and by-request follow-on IST visits.



Oversight

- **Engage early and continuously – establish dialogue collaboration**
- **Use the services of an expert team for:**
 - **Standardization**
 - **Tailoring to the situation**

Collaboration in Oversight

- **Close collaboration with certificate oversight organizations (“Certificate Management Teams” – responsible for CE-6 and CE-7) is essential.**
- **The service provider’s SMS is an essential interface in safety management oversight.**

SMS and the CEs of Oversight

- **Forward looking SRM by the service provider helps in the approval/acceptance process by they authority (CE-6).**
- **Evaluation of service provider's processes for monitoring, internal audit and internal investigation can assist in planning surveillance (CE-7).**
- **Sharing of results of service provider safety assurance processes can be used in collaborative problem solving (CE-8).**

International Collaboration

- FAA initiated the **Safety Management International Collaboration Group (SMICG)** with other regulators in 2009.
- **Purpose:**
 - Share **information**, promote **standardization** and harmonization.
 - Develop products supporting **SMS and SSP development** and continuous improvement.
- **Produces advisory and guidance products.**
- **SMICG has 18 participating authorities, including ANAC.**

Lessons Learned

- **Safety Management must be owned by operational managers, not the safety manager.**
- **Understanding is key - not sophisticated processes and tools.**
- **Close collaboration between regulator and service provider personnel is essential**
- **Local oversight personnel must have a source of expertise readily available.**

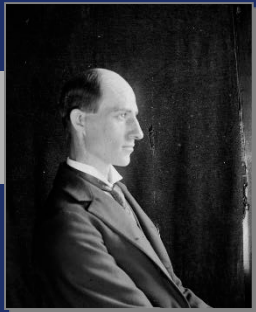


“Carelessness and overconfidence are more dangerous than deliberately accepted risk”
Wilbur Wright, 1901

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Wilbur Wright gliding, 1901
Photographs: Library of Congress

