

industry

# SAFETY MANAGEMENT SYSTEMS MADE EASY

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**T**he International Civil Aviation Organization introduced the safety management system to the global aviation community through the ICAO Safety Management Manual in 2006.

Annex 19 of the ICAO Standards and Recommended Practices outlines the requirements of SMS but mostly describes the “what.” The “how” is left for individual organizations to determine, and at first glance, developing an SMS program can be overwhelming, especially for small organizations.

Skip the fancy language found in the SARPs and look at SMS in simpler terms:

Safety is defined in some dictionaries as “freedom from harm,” but that is an unrealistic standard for real-life endeavors. For our purposes, safety means reducing risk to an acceptable level. SMS uses risk management practices to mitigate risk and achieve a practical level of safety.

SMS is just a systematic approach to the management of safety risks. It is data-driven and a business-like approach to safety management.

Chances are, your organization already has many pieces of SMS in place. The process of becoming a certificated entity and maintaining that certificate requires some of the same elements of SMS. You just need to identify and document them.

If you’ve been stuck on SMS because it seems too difficult, begin with the basic questions below. These questions are only starting points. This isn’t a Ph.D.-level course on SMS or risk management. It’s meant to be a quick-start guide for companies that need help identifying their organization’s safety efforts and tying them together into an SMS program.

#### **Four components of SMS**

SMS is made up of four components or pillars. Once you understand the purpose of and tasks involved in each pillar, you’ll see how many of these components your organization already addresses.

Assemble a team – no matter the size - grab a white board and dry erase markers, and look at how you might actually “do SMS” now:

1. Safety policy requires a company to define its policies, procedures and organizational structures needed to accomplish its goals. It also defines responsibilities and authorities. These policies, procedures and structures are generally laid out in an SMS manual or other document available to all personnel.

How you do it now:

- Who in your organization is responsible for your safety program?
- Do all employees hold responsibility for safe and compliant operations?
- Do you have written safety policies, procedures, and goals?

2. Safety risk management is a system of hazard identification and risk assessment. Hazard identification and risk assessment procedures are typically included in the SMS manual mentioned above. SRM also involves tracking of identified risks and related assessments.

In its simplest form, SRM is a hazard reporting mechanism with an assessment of the risk’s severity and probability. The SRM process requires development and implementation of a corrective action to mitigate the risk.

How you do it now:

- How do employees alert the organization to a hazard?
- How does your organization determine whether a hazard is significant or likely to result in injury, damage or fatality?
- If a hazard is determined to be significant or likely to occur, how do you mitigate that risk?

3. Safety assurance, put simply, means a company applies corrective actions to the hazards identified in SRM and elsewhere and then verifies the corrective actions are effective. Internal audits and/or third-party audits are often an important part of safety assurance.

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**SAFETY MANAGEMENT SYSTEMS MADE EASY***Continued from page 29*

How you do it now:

- Once you've determined a risk should be mitigated and you've implemented that risk mitigation, or corrective action, do you verify the corrective action worked? How?
  - Do you have a third-party audit on occasion? (FAA inspections and customer assessments count.) Do you correct any discrepancies found by those audits?
  - Do you conduct any internal audits or assessments? These might include observation of technician tasks, review of log entries and other records, assessments of facility safety, or other similar activities.
4. Safety promotion involves developing a positive

safety culture, communicating safety values and lessons, and training all employees on the SMS.

How you do it now:

- Do you teach employees to be safe and compliant?
- Do you discuss safety lessons, incidents and accidents relevant to your organization?
- Do employees in your organization attend industry conferences, workshops or seminars where safety topics are addressed?

**The AEA's SMS: Smart. Manageable. Simple**

For Aircraft Electronics Association member companies, SMS can be even easier to implement. The AEA manages a web-based SMS, available to all AEA member companies. Each participating member company names a safety coordinator to manage the organization's participation at each of the member company's locations.

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policy and online methods of conducting safety risk management, through which employees can report hazards. The safety coordinator then works through a guided risk assessment. The AEA SMS program also provides tools for an internal audit process as part of the safety assurance component and guidance for safety promotion.

The program was developed to be consistent with the applicable ICAO SARPs, as well as guidance and requirements from the FAA, the European Aviation Safety Agency, Transport Canada, the Australian Civil Aviation Safety Authority, and other regulatory authorities.

### SMS for continuous improvement

Keep in mind that SMS is not an activity with a finite ending. Rather, it's a continuous process that involves four levels of implementation:

- Level 1: Planning and organization.
- Level 2: Reactive processes.

- Level 3: Proactive processes.
- Level 4: Continuous improvement.

Data collected by Transport Canada and the FAA through their mandated or voluntary SMS programs indicates phased implementation of SMS can take approximately three years.

Some organizations look at the many pieces of SMS and the possible time and resource commitment needed to implement such a program and simply don't know where to start. Don't be tempted to try to start at Level 3 or 4 – start at the beginning. Work through the four components of SMS and document how your organization addresses each one. You probably have more pieces of SMS than you realize.

Learn more about the AEA's SMS program at [aea.net/SMS](http://aea.net/SMS). If your organization is an AEA member company, this user-friendly system could save you untold hours in developing and implementing an effective SMS program. □

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