



News from the Hill

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Safety Management Systems: Are They In Your Future?

Do you have a system in place to manage safety in your facility? If you do, does it meet international standards for such programs? Unless you can answer “yes” to both of these questions, you might find yourself considering major changes to your regulatory compliance and safety assurance system.

There is a new safety management paradigm in town. Known as safety management systems, or SMS, the new paradigm is sweeping the world — and it might wind up in your backyard.

What is SMS?

SMS is a new paradigm for managing safety in the aviation industry. Under the SMS paradigm, a regulated company adopts a system for managing its safety needs and concerns. In this way, SMS shares something in common with quality assurance systems or quality management systems, but it is much more than that.

Under the SMS system, the company is responsible not only for day-to-day regulatory compliance, but also for identifying potential future safety issues to be addressed before they become realities.

SMS also provides the industry with self-assessment tools for accomplishing these goals. Part of the idea of self-assessment is for the company to determine through internal review what areas really need to be the sub-

ject of safety management focus.

A governmental component also exists for SMS. A company’s SMS system should generate the sort of documentation that will make it easier for the government to perform an audit of the facility. But the government is responsible for having its own SMS programs to help it assess risk and focus its resources and responses on the areas reflecting the greatest potential risk to safety. This gives aviation authorities metrics to help them focus their limited resources on the true safety issues facing the regulated community.

SMS, if properly implemented, provides a framework for compliance to make the regulator’s job easier. SMS, in theory, shifts the burden of assuring compliance from the shoulders of the government inspector to the regulated party. This is where the responsibility already lies under the regulations — SMS simply provides a framework under which that obligation can be better overseen by the government while using fewer resources to accomplish the oversight responsibility.

This is attractive to aviation authorities because they simply do not have the resources to keep maintaining the level of oversight and vigilance they currently maintain. SMS allows them to better trust that the regulated community has a system in place to assure compliance on a day-to-day basis.

SMS Around the World

Article 44 of the Convention on International Civil Aviation charges the International Civil Aviation Organization with ensuring the safe and orderly growth of international civil aviation throughout the world.

Under international law, individual nations are responsible for ensuring aviation safety. They carry out their responsibilities by establishing regulatory structures designed to help assure safety. In November 2006, ICAO recommended nations adopt regulations to implement SMS within their regulatory systems.

While the United States has been actively pursuing this program since then, some other nations had begun before the recommendation. Some nations have been pursuing the doctrine since before the ICAO recommendation.

During the past several years, the Canadian government recognized aviation in Canada was growing at a rate that would outstrip Canada’s regulatory resources for oversight. To continue to maintain the public’s confidence in the safety of Canada’s aviation system, the government found itself facing serious resource challenges.

Transport Canada challenged itself to find ways to lower the nation’s accident rate even further as the industry grew; SMS seems to have provided a solution to this challenge. Canada has

been involved in SMS implementation since 2005.

Under CAR 101.01(1) (effective June 15, 2005), "safety management system" is defined to mean a documented process for managing risks that integrates operations and technical systems with the management of financial and human resources to assure aviation safety or the safety of the public.

Beginning with a pilot project of 16 volunteers, Canada successfully implemented SMS systems among small operators. The government was pleased with the results, and Transport Canada concluded, "Continuing to coordinate SMS nationally is essential."

Under Transport Canada's CAR 107.01, the SMS requirement now applies to approved maintenance organizations. They are required to implement programs that include these eight elements:

- 1) A safety policy on which the system is based.
- 2) A process for setting goals for the improvement of aviation safety and for measuring the attainment of those goals.
- 3) A process for identifying hazards to aviation safety and for evaluating and managing the associated risks.
- 4) A process for ensuring personnel are trained and competent to perform their duties.
- 5) A process for the internal reporting and analyzing of hazards, incidents and accidents, and for taking corrective actions to prevent their recurrence.
- 6) A document containing all safety management system processes and a process for making personnel aware of their responsibilities with respect to them.
- 7) A process for conducting periodic reviews or audits of the safety management system and reviews or audits for cause of the safety management system.

8) Any additional requirements for the safety management system prescribed under the Canadian regulations (thus providing a mechanism for introducing further requirements).

Australia also has embraced SMS as a paradigm for its safety culture, while New Zealand has issued a policy paper and sought comments on adopting SMS regulations modeled on the Australian implementation.

Not the First Major Paradigm Shift

SMS would not be the first major change in the way nations manage safety. In the earliest days of aviation regulation in the United States, the Civil Aviation Authority approved all maintenance operations.

In the 1940s, a change delegated to repair stations the privilege of approving repairs and alterations for return to service. This was a major change in the way the government oversaw maintenance and regulated safety. It was necessary because the growth of aviation threatened to overwhelm the CAA's resources.

It was an experiment that worked because delegating the responsibility to the repair stations and mechanics resulted in an industry eager to take responsibility for its own actions and take safety seriously.

Implementation in the USA?

So, will SMS be implemented in the United States? Will it impact the AEA community? The answer to the first question is: SMS already is being implemented. The answer to the second question is: Yes, but not yet for those in the United States.

The FAA already is implementing SMS among air carriers to comply with the ICAO recommendation. The System Approach for Safety Oversight program implemented an SMS-like program for air carriers that has grown quickly from the original program

— which was aimed at a handful of air carriers — to a large-scale program for all Part 121 air carriers.

Under SASO, the FAA has been analyzing and re-engineering current Flight Standards business processes to incorporate a systems approach to safety management. This approach relies on proactive identification and evaluation of aviation risk factors to enable the Flight Standards service to efficiently focus its oversight efforts on the areas of highest safety risk.

The new processes should support a more collaborative relationship between the FAA and the regulated community by empowering the community to have more responsibility for safety management within their organizations. Implementation of SASO is seen as a part of the effort to comply with the ICAO SMS recommendation.

The FAA has begun investigating a SMS implementation for Part 145 repair stations. It is going through its own processes for repair station oversight to determine what the elements are for that type of oversight. Once it has these elements, it will be ready to map the processes that go into repair station oversight. In turn, this will allow the FAA to issue regulations implementing a repair station SMS program that makes sense under any repair station environment.

But all of this takes time. It is doubtful the FAA will be in a position to propose SMS rules for repair stations until late 2010 or early 2011. For the immediate future, the most likely sources of SMS requirements are the commercial requirements of our business partners.

As air carriers continue to implement SASO programs in their systems, it is likely they will put both subtle and unsubtle pressure on their suppliers to adopt the same sort of SMS-style programs among other sectors of the industry. □