SMS Swiss Style

**'Walking the talk' and adapting to culture helped
the civil aviation authority to convert skeptics.**

BY WAYNE ROSENKRANS | FROM MILAN

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Attention to preferred languages, local culture and persuasive modeling has helped Switzerland move to the forefront in national implementation of safety management systems (SMSs), says Peter Müller, safety analyst technical, Safety Risk Management, Swiss Federal Office of Civil Aviation (FOCA). Müller led the core team that implemented the FOCA SMS and champions SMS in the nation's aviation industry. He explained the key steps at Flight Safety Foundation's International Air Safety Seminar in Milan, Italy, in November 2010.

In the context of four crashes within a relatively short period, the Swiss Ministry of Transport contracted with the Dutch National Aerospace Laboratory (NLR) to conduct an in-depth analysis of the nation's aviation system that resulted in a final report in mid-2003. "Just two of the 28 recommendations are still outstanding," Müller said. "NLR recommended that the Swiss government develop a national safety policy, which was done, and progress further in developing a safety-driven surveillance system — moving away from a [regulatory] compliance-oriented system to a

performance-based oversight system. … We will achieve the desired [SMS] maturity level within the Swiss aviation industry by the end of 2011, which will be the end of the implementation phase."

Since 2000, the country's complex regulatory framework and relationship to ICAO, EASA and Eurocontrol standards have required acting on the best available information to proceed with SMS implementation. "The Swiss government had decided to comply with the ICAO standards [already effective] 1 January 2009, so we had to establish our own approach," he said.

One early impediment was rampant skepticism about the timing of FOCA's SMS requirements — that is, expecting implementation to begin in January 2009 — relative to pending SMS requirements of EASA and imminent changes in Swiss aerodrome regulations. "People were coming up to me and asking, 'Aren't you running ahead of what is coming out of EASA? Will we later need to change the whole thing?'" Müller recalled. "But we were able to convince the industry that we are on the correct path [and EASA] accepted, and now promotes, the [Swiss] implementation. … We [told aerodrome officials] we were asking for an integrated system because FOCA cannot have compliance-only while trying to develop an SMS. We have had to do both at the same time."

Executives of small companies, some involved in airport ground handling, often objected based on cost concerns. After only a one-day workshop, including hands-on practice with SMS tools, many skeptics came on board. "When they got home in the evening, they knew exactly what they would have to [do] and how they would do it for their company," he added.

As further evidence of industry buy-in, Müller cited a FOCA-sponsored SMS conference in September 2010 in which agency staff gave the welcome and the introduction, then all other presentations were given by expert industry representatives.

"Management needs to have figures [data] to decide about protection versus production," Müller said. "If they don't have any figures — if they have just a best guess on safety — they cannot make this decision, so usually they tend to make the decision [in favor of] production, not protection. Swiss industry has recognized that safety figures have

the same value as economic figures. Management will ask now for both to make their decisions."

He attributed the gradual turnaround in attitudes to constant FOCA leadership on SMS. "First, we had to demonstrate that we walk the talk, then … be open to communicate and to cooperate with the industry," he said.

Practical hurdles were how to achieve one level of safety, setting due dates for SMS-related tasks, determining the need for guidance material, identifying existing solutions before inventing new ones, and getting ready to assess the maturity level of each SMS in the industry.

Native Languages

Capitalizing on languages spoken and written most often in everyday work greatly improved communication of SMS concepts, he said. "A safety management system is really a cultural thing, so the language barrier is not [a factor] to be overlooked," Müller said. "In Switzerland, usually we don't speak English. We speak German, French and Italian, and a small minority speaks [Rhaeto-Rumansch]; these are the four official languages.

"Our *Safety Management System Assessment Guide* was developed in the English language, and nothing happened. We translated it into German, French and Italian, and then [the content] started to move around in the industry. We recognized that using the [non-Swiss] language really had been a big barrier." Emphasis on clear communication also extends to consistent vocabulary for SMS terms within each language used.

Safety Inspector Roles

A key decision in FOCA's strategic planning for SMS was not to establish

a specific dedicated team of specialists to conduct oversight of SMS in the industry. Instead, the agency primarily aimed to make SMS widely understood and managed within the capabilities of all inspectors.

"The responsibility to evaluate SMSs in the industry remains with the dedicated line inspector," Müller said. "That means FOCA had to teach inspectors how to assess multiple certificated organizations [and] coordinate internally with the maintenance inspectors and with other involved inspectors. … FOCA had to … demonstrate to the industry that we are willing to do the utmost in supporting and guiding them through this experience."

The FOCA SMS core team supports the inspectors, develops guidelines and harmonizes the SMS maturity-assessment process throughout the various domains. The team also prepared an SMS maturity-assessment tool suitable for when the inspectors conduct semi-annual checks and annual ratings of each Swiss organization's SMS. "The FOCA SMS core team also is evaluating the status of SMS implementation at all levels within the industry," he said.

In 2012 and beyond, FOCA officials look forward to resolution of central questions for themselves and their counterparts at other European civil aviation authorities. "As a small state, should we really define our own acceptable level of safety?" Müller asked. "Or should Switzerland join with other European countries to define a common acceptable level of safety?"

Another possibility is that Swiss aviation companies someday could become isolated from their regulator in unforeseen ways. "So we have to interface with them [through] our state safety plan and state safety program," he said.