

Cultural Expectations



A strong safety culture is the essential first ingredient in an SMS.

BY JAMES W. SMITH

How does the safety culture of an organization affect the design and implementation of its safety management system (SMS)?

Too often, people design and implement an SMS without first properly assessing their organization's safety culture for risk. The results are almost always the same: an SMS that at best is marginalized and at worst, completely ineffec-

tive — more of a “check in the box” just to gain an approval or keep a supplier happy.

As Deborah Hersman, chairman of the U.S. National Transportation Safety Board, said in an April 2009 speech to the International Society of Air Safety Investigators, SMS “functions well for companies that already are getting it right, but it may do little for companies without strong safety cultures.”

The common assumption is that people will embrace the SMS, become engaged by using the hazard and incident reporting system, openly report near misses and errors, and take ownership of safety and compliance in their operation. But will they? Or will they continue to do their jobs the way they have always done them and engage in risky behaviors that are considered acceptable in their workplace? Our experience has been that they will continue to conform to their current ways of doing things — even conform to procedures in which there may be substantial risk — until they are shown how risky some of those procedures are, and then are led to a different place.

Measuring a Safety Culture

How do you measure a safety culture in an organization? There are subcultures in any large organization based on geography, leadership styles and even which shift a person works. To effectively measure a safety culture, the cultural norms of the organization must first be identified, and then there must be an examination of how the management team responds to error.

If we accept the fact that people generally behave in the manner that they believe they are expected to behave, then a good way to begin measuring a safety culture is with an employee safety culture survey. The challenge is to ensure that the right questions are being asked and that the employees trust that there will be no management retaliation when they tell the truth. For this reason, it sometimes is more effective to bring in an outside company to conduct the survey. Our experience has been that most employees are more willing to respond candidly to difficult safety- and compliance-related questions when the individual or company conducting the survey is not associated with their company and there is little likelihood of being singled out and punished for telling what really goes on in the workplace.

Safety Culture Findings

In an effort to assist aviation companies around the world, Baines Simmons has developed a diagnostic toolkit called the Safety Management

and Risk Reduction Tool (SMARRT). One of the diagnostic tools in the toolkit is our Safety Culture Organizational Review Evaluation (SCORE) assessment tool, which is used to measure the safety culture and risk tolerance of an organization. Since 2007, Baines Simmons–Americas has used the SCORE tool to assess more than 2,000 maintenance technicians from both unionized and non-unionized organizations across North and South America. The organizations were representative of airlines operating under U.S. Federal Aviation Regulations Part 121; original equipment manufacturers operating under Parts 21 and 25; and maintenance, repair and overhaul (MRO) facilities operating under Part 145.

The survey results have consistently revealed two safety issues:

- The management team is almost always unaware of — or ignoring — the risk-taking that occurs on the flight line or on the hangar floor; and,
- More than 80 percent of the maintenance personnel surveyed said that it is necessary and actually acceptable to sacrifice safety and compliance to complete their jobs on time.

In May 2010, Baines Simmons–Americas invited more than 1,800 people in North and South America to participate in an abbreviated SCORE assessment via our monthly newsletter. Most of the 330 people who responded to our newsletter were either managers or senior managers in their organizations. They were asked to answer the questions the way they thought their frontline employees would answer them. We then compared the responses from the aviation managers and leaders with the data collected from the more than 2,000 maintenance technicians we had previously surveyed.

While there were a number of significant differences in the responses of the managers and the technicians, the similarities were disturbing.

For example, 52 percent of the managers agreed with the statement, “We usually

The management team is almost always unaware of the risk-taking that occurs on the flight line or on the hangar floor.

Safety Culture Assessment

Before I start a job, I'm always given the necessary information.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians ¹	5%	36%	6%	44%	9%
Other survey respondents ²	21%	32%	11%	26%	11%

There is often confusion between departments over some of their exact roles and responsibilities.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	28%	47%	12%	12%	2%
Other survey respondents	26%	37%	16%	0%	21%

The procedures I use are accurate and complete.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	9%	48%	10%	28%	6%
Other survey respondents	21%	26%	32%	11%	10%

We usually manage to complete a job despite the non-availability of the specified equipment/tools.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	24%	57%	8%	10%	2%
Other survey respondents	5%	47%	26%	11%	11%

We often have to rush jobs due to unrealistic deadlines.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	43%	41%	7%	7%	1%
Other survey respondents	16%	37%	32%	11%	5%

Due to limited time or resources, there have been times when I signed off for work that was not completed.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	3%	14%	17%	38%	28%
Other survey respondents	5%	11%	16%	32%	37%

I pride myself on getting an aircraft back to service on time, even if I occasionally compromise on small details.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	8%	29%	12%	41%	11%
Other survey respondents	5%	26%	26%	41%	21%

My immediate boss sometimes pressures me not to follow maintenance procedures.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	5%	15%	9%	53%	18%
Other survey respondents	11%	5%	21%	42%	21%

My immediate boss would approve of my actions if I did not follow procedures in order to get an aircraft away.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	5%	21%	21%	41%	13%
Other survey respondents	5%	5%	32%	32%	26%

Management investigates incidents to understand weakness in safety procedures, not to discipline the person.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	5%	35%	26%	24%	10%
Other survey respondents	26%	16%	16%	21%	21%

The management has no idea of what really goes on.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Technicians	18%	33%	20%	23%	6%
Other survey respondents	16%	21%	21%	26%	16%

Notes:

1. Technicians' responses were derived from Baines Simmons–Americas' assessments of about 2,000 maintenance personnel from 2007 to 2010.
2. Other survey respondents were 330 people — most of them managers in aviation organizations — who were asked to answer the questions in a Baines Simmons–Americas survey in the same way they believed their frontline maintenance personnel would respond.

Source: James W. Smith, Baines Simmons–Americas

Table 1

manage to complete a job despite the non-availability of the specified equipment/tools” (Table 1). In other words, they believed that their frontline employees engaged in noncompliant behavior.

Sixteen percent of the managers agreed with the statement, “Due to limited time or resources, there have been times when I signed off for work that was not completed.” In other words, they knowingly condoned noncompliant behavior within their frontline workforce.

Sixteen percent of the managers also agreed with the statement, “My immediate boss sometimes pressures me not to follow maintenance procedures,” and 10 percent agreed that “My immediate boss would approve of my actions if I did not follow procedures in order to get an aircraft away.”

The concept of “mutually facilitated risk” is clear, and the potential consequences are apparent. After all, the safety culture of any organization is a direct reflection of its value system. Are safety and compliance really core business values or are they just slogans on a break room wall? The results of these surveys suggest that the message is clear to the technicians that production is more important than safety and compliance.

If managers are aware of the non-compliance issues and at-risk behaviors in their organization and are not proactively addressing these issues, then they are just as much to blame as the frontline technicians. However, 42 percent of the managers surveyed disagreed with the statement, “Management investigates incidents to understand weakness in safety procedures, not to discipline the person” — an indication that managers absolve themselves of any culpability and instead participate in

the “blame and punishment” management model.

Repeating the Errors

A quotation sometimes attributed to Albert Einstein says insanity is doing the same thing over and over again and expecting different results. Does this definition apply here? Unfortunately, it does. Unless managers are willing to examine their technicians’ working conditions — including scheduling, staffing, tooling, equipment and training — then they are doomed to repeat, and pay for, the errors that occur in the operation.

If 26 percent of a company’s technicians believe — as our survey found — that their immediate bosses would approve of their actions if they did not follow procedures in order to speed up their work on an aircraft, then it is reasonable to expect the technicians to behave in that manner. If 34 percent of technicians also believe that managers investigate incidents to find someone to discipline rather than to identify and understand weaknesses in safety procedures, the technicians are unlikely to be forthcoming in admitting their errors, violations and risk in the workplace.

Technical/maintenance failure continues to be a significant cause or contributing factor in fatal civil aircraft accidents. While there is no solution that will eliminate all risk, implementing an effective SMS will go a long way toward helping to identify, understand and reduce the risk in an operation.

How to analyze, design and implement an SMS is critical. One of the most important elements in SMS design is the engagement of the frontline employees. In every organization we have worked with, the management

team readily admits that the frontline employees and technicians know best where the safety/compliance gaps and risks reside in their operations. However, when we approach the technicians about an issue, their response is almost always something along the line of, “Yeah, we’ve told the managers about that a hundred times already, but they don’t do anything about it, so we quit telling them.” Eventually, the communications pipeline dries up — which explains the survey results that we routinely see in our SCORE assessments.

Our Safety Management Diagnostic tool shows us that virtually every organization has some of the elements necessary for an SMS, but often they are either not linked together or they are underutilized because they are viewed as cumbersome administrative burdens that add little or no value to the organization. For an SMS to work, it must be directly linked to daily activities, to the existing safety systems and — most importantly — to the operational and business metrics. An effective SMS not only reduces error and improves safety and compliance but also supports a shift in the corporate culture by opening the lines of communication and making safety and compliance the top priority at all levels of the organization. ➔

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InSight is a forum for expressing personal opinions about issues of importance to aviation safety and for stimulating constructive discussion, pro and con, about the expressed opinions. Send your comments to J.A. Donoghue, director of publications, Flight Safety Foundation, 601 Madison St., Suite 300, Alexandria VA 22314-1756 USA or donoghue@flightsafety.org.