

# A System for Managing Risk

by Andreas Bentz, Ph.D.

The big buzzword in the aviation industry these days seems to be "Safety Management System" (SMS). The best U.S. operators are implementing SMS, such as the International Standard for Business Aircraft Operations (IS-BAO) in their operations. Canadian business aircraft operators are already legally required to have an SMS; and soon international flying will only be possible for those operators who have an SMS in place. But what is a "Safety Management System?"

The idea behind SMS is simple. All businesses have systems in place to manage their day-to-day operations: we use budgeting procedures to manage our expenses; marketing tools to manage our revenue streams; and human resources tools to manage our people. Why not use a systematic approach to managing the safety of our business aircraft operations as well? This is just what SMS is: a systematic approach to managing the risk that is inherent in all aviation operations.

Increasingly, aviation regulatory agencies globally – including here in the U.S. – are transitioning away from purely enforcing compliance with a set of essentially technical standards ("you have to plan to land within 60% of the available runway length") to ensuring that operators set up their own systems to manage aviation risks ("if you engage in certain risk-mitigation strategies – crew experience, crew pairing, landing risk assessment, etc. – you can plan to land within 80% of the available runway length").

In other words, instead of enforcing certain one-size-fits-all rules, the "new" regulatory approach seems to be to ensure that operators set up their own systems for mitigating risks in a way that is specific to each operator's business. The focus is not on "what" outcomes the operator must accomplish, but on "how" the operator ensures safe operations.

This gives operators greater flexibility in how to achieve safe outcomes; but it also means that we carry greater responsibility for how we run our operations. This is not for the partly-committed: you can't have a "low-calorie SMS." An SMS work best in an environment that has a healthy safety culture.

## **"A safety culture means doing the right thing even when no-one is watching"**

A company's culture is defined by how its people think, act, and how they interact with each other – it is "the way we do things around here." So how do we know that we have a healthy safety culture – when is "the way we do things around here" supportive of the overall safety goal?

Think about how you do things. Do you always put safety first? This, too, is how you can measure a company's safety culture: a safety culture means everybody in the organization identifies and mitigates the risks – even when no one is watching.

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The IS-BAO was developed by the business aviation industry for the benefit of our industry. It is a code of best practices designed to help business aircraft operators operating anywhere in the world (domestically or internationally) achieve a high level of safety and professionalism. Learn more about IS-BAO on-line at:

[www.ibac.org/is-bao/isbao.htm](http://www.ibac.org/is-bao/isbao.htm)

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### **Key Ingredient I: Safety Risk Management**

When we engage in an operation – say, a flight to a mountainous airport – what can go wrong? How likely is it to go wrong? And, if it does go wrong, how bad will it be? These are basic risk-management questions.

At one extreme are operations that have improbable risks and that, should they occur, have relatively minor consequences. Those are operations with a largely acceptable level of risk. At another extreme are operations with risks that occur frequently and that, if they occur, have catastrophic consequences. Those operations carry an unacceptable level of risk and require either mitigating the risk, or not engaging in the operation at all.

Part of an SMS is to continuously ask these questions, and to implement risk mitigation strategies for those operations that carry unacceptable risks. And you can help: by reporting potential hazards in our operation, you help answer those questions: what can go wrong; how likely is it; and if it does go wrong, how bad will it be?

### **Key Ingredient II: Safety Assurance**

So we have analyzed the risks in all of our operations, and have either controlled the risk involved, or decided not to engage in those operations that were deemed “too risky.” Did our strategy work?

Part of a successful SMS is to audit our safety performance. Did something go wrong? Did something almost go wrong? In order to improve the way we manage risks, we have to know the answers to these questions. And here, again, your help is crucial: report anything that either went wrong, or that almost went wrong – only then can we learn whether our strategy has worked, or – if it hasn't – how to improve it.

### **Key Ingredient III: Safety Promotion**

Finally, in everything we say and do, we want to clearly communicate that safety is our core value; and that ours truly is a strong safety culture. To promote safety, my company publishes two newsletters, “The Outer Marker” and “Think Safety”. This regular communication has been well received by our staff and it might be a good tool for other operators to implement.

Whenever you prepare to do something, ask yourself: are you doing the right thing ... even when no-one is watching?

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*Andreas Bentz, Ph.D. is a pilot and the safety and security coordinator for Chantilly Air, Inc., a Part 135 charter operator, aircraft management company, and Part 145 repair station located at the Manassas Regional Airport in Virginia.*