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National Business Aviation Association

***TWELVE STEPS TO AN EFFECTIVE
SAFETY MANAGEMENT SYSTEM:
A Review of the Fundamentals***

TWELVE STEPS TO AN EFFECTIVE SAFETY MANAGEMENT SYSTEM: A REVIEW OF THE FUNDAMENTALS

Safety has always been the top priority for business aviation professionals. Business aviation accident rates have fallen dramatically over the past several decades due in large part to embracing new technologies like simulator training, EGPWS and TAWS and by improved crew resource management techniques.

In recent years, however, the rates of improvement have leveled off and experts say that organizational deficiencies remain the leading cause of accidents today. But they also report that business aviation can prevent many of the current accidents and mishaps through the development of a “safety culture” that emphasizes a systematic approach to identifying and minimizing hazards—a Safety Management System (SMS).

NBAA prepared this whitepaper to describe the basic steps necessary to develop a comprehensive *and effective* SMS. It is based on real-world experiences and best practices in business aviation, and shows how you and your organization can fly more efficiently, more cost-effectively...*and* more safely.

STEP #1

Study the Concept

Familiarize yourself with the underlying philosophy of an SMS and the steps needed to set up a systematic, proactive safety program. Visit www.nbaa.org/admin/sms to get more background information and learn about successful SMS programs at other flight departments.

STEP #2

Obtain Senior Management Commitment

The ability of a flight department to successfully implement an SMS is contingent in large measure on the safety culture of the flight department and the parent company. Securing senior management support for SMS early in the program should help to resolve more challenging questions about resources and priorities.

STEP #3

Establish an SMS Team

Involve every member of the flight department, as well as company passengers, customers and other lines of business. Wide participation in the formulation of the program not only increases employee buy-in, it also enhances the quality of the program. People will view the project from different perspectives, so some people will contribute ideas that others might overlook.

STEP #4**Determine What Resources You Have and What You Need**

Take stock of existing programs, procedures and processes to make maximum use of what you have. Determine what talent, knowledge, experience and other resources you can devote to creating an SMS. The level of resources available to you—both internal and external—will dictate your SMS implementation timeline.

STEP #5**Conduct an Initial Hazard-Identification and Risk-Assessment Survey and Develop a Safety Risk Profile**

Have everyone in the flight department identify and quantify potential hazards, and then develop possible risk-mitigation strategies. By producing an overview of the risks generally experienced by your flight operation (e.g., possible exposure to an accident, incident or regulatory violation), you can ensure that risk-mitigation strategies are targeted in such a way as to optimize safety. Be sure to include as many scenarios as possible.

STEP #6**Develop Your Safety Management Strategy and Safety Assurance Processes**

A safety management strategy is the operator's approach to the management of safety. It is the linkage between the identified safety risks and the remainder of the SMS. The ongoing safety-assurance processes such as monitoring of operational systems, processes and procedures to ensure that they are appropriate and effective can also be used to maximize the efficiency and effectiveness of safety-management activities.

STEP #7**Identify Safety Accountabilities**

Defining precisely who is responsible for delivering specific goals is an important step to ensure that your SMS functions properly. It's not a "blame game." It's also not just another job for the "safety guy" or "safety gal." It's simply a way to ensure that your system is the best it possibly can be.

STEP #8**Develop an Ongoing Hazard Identification Tracking System and Risk-Assessment Procedure**

Set up a system under which anyone can openly report safety concerns and operational issues. This helps to solicit safety information you may not hear about in any other

way. Your system should allow a review of the hazard reports and how you fixed them.

STEP #9

Develop an Emergency Preparedness Plan

Knowing exactly what to do in a crisis can make all the difference. While no one can anticipate every contingency, it is important to visualize the most likely ones and to define exactly what you will do if those situations actually happen.

STEP #10

Amend Existing Safety Programs, Procedures And Documents, as Required

Like most flight departments, you already follow many industry best practices. However, as you develop your SMS, you will identify policies, programs or procedures that may need to be modified. As you make changes, make sure that the linkages are maintained and that everything operates as a system. Document your new plan and ensure everyone understands any changes made, so that everyone is on the same page.

STEP #11

Conduct Staff Training and Education

Initial instruction and regular recurrent training are keys to ensuring that personnel are properly prepared for any likely contingency. Ongoing safety communications—through safety newsletters or flight operations meetings—to discuss safety issues and changes to procedures based on risk assessment are helpful communication vehicles.

STEP #12

Track and Evaluate Safety Management Activities

The only way to know if you are improving is to measure and periodically evaluate your performance. Use the information and data you collect to “test” whether or not your system is effective. Then implement any changes that seem advisable. Be sure to keep senior management engaged in the SMS evaluation processes.

NBAA'S ULTIMATE SMS SOLUTION

Registration of your flight department under the International Standard for Business Aircraft Operations (IS-BAO) is the ultimate SMS Solution.

IS-BAO is a compilation of industry best practices recognized globally for meeting SMS and ICAO Annex 6 Part II requirements. When your flight operation is registered under this performance-based standard, you'll meet industry-leading safety standards that recognize your flight operations as the best of the best. The IS-BAO also includes an SMS Toolkit that will guide you through the SMS development process. See the following Web site for more details on the IS-BAO, and how to order your copy through NBAA: <http://www.ibac.org/isbao.php>.

NBAA Members enjoy a full range of safety and operational tools and resources including a \$450 discount on the IS-BAO Manual, as well as exclusive access to the comprehensive SMS Toolkit that helps you implement the program.

Visit <http://www.ascendwithNBAA.org/GenALAR1>
to become an NBAA Member.