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SMALL FLIGHT DEPARTMENT SAFETY GUIDE: Pathway to Improving Safety

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Developing a robust, fully-functioning Safety Management System (SMS) is a lofty goal for any flight department. However, achieving such a milestone can often become overburdensome for small flight departments due to a variety of factors such as the perceived extra work, personnel and costs that are often associated with developing an SMS. The good news is that there are several ways small flight departments can begin developing safety programs for their respective operations with little to no extra costs and minimal work.

This guide will serve as a roadmap for small flight departments to begin taking steps toward improving the safety of their operation, and could ultimately open the door to a fully operational SMS.

It should be stated that each small flight department is unique in terms of how it operates, from the type of aircraft they fly to their overall mission. As a result, one of the first steps department leadership should take is to have a “look in the mirror” and have an honest self-evaluation of where they are safety-wise and what they can do to better their operation. Measuring the department’s safety by a lack of previous incidents or accidents may not be a good indicator of how “safe” an operation truly is. An alternative way to examine one’s own safety is having a look at how they approach risk identification and mitigation. As stated in the NBAA white paper, [Speaking With Your Principal](#): “Safety is not just a culture; it needs to be embedded in the DNA of each department and requires the support of the principal in order to be effective.”

Striving for continuous improvement can help small flight departments form an open mindset for incorporating ways to continually evaluate and mitigate risks, thereby elevating the level of safety within their operation.

THE SAFETY MANAGEMENT SYSTEM

A Safety Management System is a quality management type of approach to managing risk. SMS incorporates the following four pillars:

- Safety policy
- Safety risk management
- Safety assurance
- Safety promotion

While developing a fully certified SMS adds great value to a flight department, it has historically required greater capital and personnel resources to attain. As a result, this may have limited many small flight departments from being able to justify the costs to successfully manage a functional SMS. However, thanks to various industry-wide initiatives, the process of developing an SMS is becoming more scalable and attainable for flight departments of any size.

For the SMS to be successful, it should be customized to the individual flight department’s operation. Depending on the flight department’s resources, a standalone SMS can be developed using the [NBAA’s SMS resources webpage](#). The department may instead choose to partner with an external provider such as the [IS-BAO FlightPlan Stage 1 program](#). An ever-increasing number of resources and safety program providers are available for small flight departments to utilize when creating an SMS for their operation.

It is important to remember that whichever safety tools an operator decides to implement, whether it is one of them or all of them, it should be fully embraced as part of the operation. Having a safety program for the sake of having one serves no meaningful purpose. Small flight departments that choose to fully incorporate any safety tool as part of the DNA of the department will benefit from not only continuous improvement and efficiency, but will help it truly become a safer flight operation.

The following are several tools highlighted within each of the four pillars of an SMS that flight departments may find helpful to further the safety within their operation.

SAFETY POLICY AND OBJECTIVES: HOW DO WE OPERATE?

Objective: Simply define in writing how you operate. It's difficult to know what works or doesn't work if you do it differently every time.

Tool: *General Operations Manual/Flight Operations Manual*

Developing an operations manual is a systematic way for departments to organize the way they operate. Having written policies and procedures increases both safety and efficiency in flight operations. It is important that the manual is scaled according to size, and customized to each individual flight department. It can be as basic as a written statement that the operation uses the OEM's operating manual and training provider's standard operating procedure callouts.

There are valuable resources for developing an operations manual from the NBAA such as the [LBA Flight Operations Manual Template](#) and the [NBAA Management Guide](#). In addition, there are countless other external sources for creating an operations manual, including consulting companies that write manuals for flight departments. Whatever option the flight department chooses, it is important that the manual is functional and tailored to the individual operation. The operations manual should be a "living document" that is continuously improved and refined in response to the safety program and other changes to the department's operations. Doing so will prevent the created manual from collecting dust and become irrelevant.

A safety policy is a crucial element to any department's operations manual. While an uncomplicated statement indicating the department's approach to safety can suffice, it is important for departments consider their organization's culture and attitudes towards voluntary reporting. Having a non-punitive safety policy should be a basic foundation for a safety program of any size and complexity.

SAFETY RISK MANAGEMENT: WHAT ARE THE RISKS TO US?

Objective: Identify and analyze the risk for its acceptability in the context of the flight. One risk by itself may be acceptable, but multiple risks simultaneously may not. Evaluating risk in context is imperative to determining the best course of action.

Tool: *Flight Risk Assessment Tool (FRAT)*

The use of a FRAT is an objective, yet simple, way for small flight departments to identify and mitigate risks to a level that is as low as reasonably practicable. The FAA's [Information for Operators on Flight Risk Assessment Tools](#) is a great resource for flight departments of any size to help develop a FRAT for their specific operation. It is important to make sure that when implementing a FRAT, its use is consistent and not just to "check the box." A helpful mindset for the use of a FRAT is to view it as a tool to help identify contrasts for each flight. They help flight crews to organize and alleviate risks day in and day out.

As an operation collects and reviews its FRAT scores, it allows the group to identify consistently prevalent risk. It could lead to adjusting training emphasis to further mitigate the risk.

Tool: Safety Reporting/Surveying

All employees should have a readily available means to report safety issues they identify. There should also be an option to do this anonymously. This could be as a safety suggestion box at the hangar, or an online survey (Survey Monkey, Microsoft Forms, etc.) that is written in a report format. Similarly, a safety culture survey is another tool that allows for flight department managers to assess and improve the safety of their flight department. NBAA has guidance on [conducting a Safety Culture Survey](#), along with an [existing survey](#) that may be useful for operations of any size.

SAFETY ASSURANCE: HOW DO WE KNOW IT'S EFFECTIVE?

Objective: Evaluate the effectiveness of the tools, processes and procedures to understand and manage acceptable risk. If it's working, don't change it. If it's not working, adjust course.

Tool: *Briefings*

One of the simplest safety tools to implement into a flight department of any size is the regular use of both pre- and post-flight briefings. Discussing a flight beforehand allows for a crew to ensure they've captured the possible challenges and are on the same page.

One simple, yet effective, method for structuring briefings is described by aviation author James Albright from the [Code7700 website](#). Albright offers the acronyms "AWARE" (Airplane, Weather, Airport, Route, Environment) for preflight and "DEAL" (Departure, Enroute, Arrival, Logbook) for postflight briefs. Whatever format that is chosen, it is important to remain consistent and brief.

SAFETY PROMOTION: ENCOURAGEMENT

Objective: Remind and motivate flight department members why we have risk management protocols – find and identify the purpose. Motivation to learn new skills and habits only happens when we know the "why" behind the task.

Tool: *Safety Meetings*

Another safety measure small flight departments can utilize is periodic safety meetings. Whether internal meetings within the department, or external meetings with other flight departments, setting aside time dedicated for safety discussions can be invaluable. There are countless ways to hold meetings that cater to individual flight departments, whether it be an annual stand-down type event or more frequent quarterly meetings. Meeting and sharing information between flight departments is a great way to learn from others and find new ways to improve safety. There is value in getting together with other pilots and sharing lessons "from the line."

Tool: *Safety Newsletters/Posters*

Depending on the size of the flight department and the resources available, publishing a safety newsletter at some interval (quarterly, monthly) is a great way to promote safety. The newsletter can discuss received safety reports, trends identified by FRATs or industry-wide safety topics. Posters are another valuable tool that can emphasize and promote safety topics. Pro-tip: create something that allows for the poster to be frequently updated. For example, utilizing a large 24x36 poster, a smaller 9x11 insert area can be created to simply print out a sheet of paper current information.

ADDITIONAL TOOLS: OKAY, I DID THAT, NOW WHAT?

The following are additional tools available to flight departments that contribute to one or more of the four pillars of safety management systems. While they are both excellent safety mechanisms to incorporate, they may not be the best fit for all departments.

Tool: *Flight Operations Quality Assurance (FOQA)*

What is it? FOQA is a tool used to review actual flight data for trends to identify risks and provide safety assurance. Parameters from every flight are analyzed versus established metrics. It allows operators to see trends of flight activity, and can help an operator identify challenges and training solutions to what is actually happening in the field. It may also highlight areas that the crew may not recognize. For example, FOQA can highlight how an ATC procedure at a certain airport to assign a minimum speed to final approach fix consistently led to un-stabilized approaches with unspooled engines at low altitude.

FOQA tells you what happened – not why it happened. The FOQA process is designed to analyze trends, not isolated events. It also validates every area an operation is doing correctly.

Installing a FOQA requires a thoughtful, deliberate process. It will require socializing it up to management who may be surprised to hear that not all flights are perfect. It will require a thoughtful selection of the gatekeeper; the person responsible for analyzing trends. The gatekeeper is best served by a non-manager pilot. In addition, FOQA requires solid policies that reinforce it's about trends and not policing individual events.

Despite the initial steps, FOQA is the best way to quantitatively indicate how an operation is improving and what training or procedures need to be enhanced.

Tool: *Aviation Safety Action Program (ASAP)*

What is it? ASAP is a formal voluntary self-reporting program. It allows participants to confidentially report safety issues, unintentional deviations from FARs and other abnormal situations that may identify precursors to accidents or incidents. The reports are analyzed and resolved through corrective actions issued by an Event Review Committee (ERC). The ERC is made up of a company management representative, a representative of the employee group represented (pilots, mechanics, flight attendants, etc.) and a representative from the FAA.

The unique aspect of the ASAP program is its non-disciplinary approach to resolving safety issues. If a possible deviation from the FARs occurred, the FAA will use the lesser or no enforcement action when a report is voluntarily submitted and accepted by the ERC under the ASAP program. This holds true as long as the event does not involve any of the “Big Five:” criminal activity, substance abuse, controlled substances, alcohol or intentional falsification (FAA Advisory Circular 120-66C).

Compared to FOQA, which tells users what happened, the ASAP program’s goal is to tell participants why a particular occurrence happened through the reporting and ERC review process. After the “why” has been identified through a root cause analysis, preventative measures can be implemented to prevent future recurrences. Developing an ASAP program requires trust in the process and buy-in from all company participants to voluntarily report safety issues. ASAP has been adopted by the airline and charter industries since the early 2000s. However, in the last several years, ASAP programs have begun to be implemented by an increasing number of Part 91 operators. Today, even small flight departments have access to this invaluable tool by third-party providers such as the [Air Charter Safety Foundation](#). Additional information and resources regarding the ASAP program can be found on the FAA’s [Aviation Safety Action Program](#) webpage.

Tool: *Change Management/Leadership Process and Mindset*

Many types of change have a period where an operation is adjusting and not operating at its optimal level. For example, if your department is planning to change the aircraft type it operates, it takes some time and training to learn the different idiosyncrasies of the aircraft. You need to learn the ground servicing skills. It may require a different type rating. Incorporating a change management process allows for your team to discuss the various anticipated challenges and put a plan in place. You will never be able to capture everything, but it’s amazing how you can mitigate the disruption that change brings. It doesn’t need to be complicated and could be done in a notebook or in change management software.

Every change has its own challenges, whether it’s adding personnel to your operator, a new tug, or even one of the tools listed above. Developing a mindset to anticipate the challenges will aid the operation in maintaining its high level of performance.

Ultimately, there is no “best way” to implement safety programs, particularly in small flight operations. Whatever approach that works best for one operation may not for another. The key is that whatever the tools utilized, they are consistent and fully ingrained in the operation from top-down to bottom-up.