



USHST

United States Helicopter Safety Team
Our Vision: A Civil Helicopter Community With Zero Accidents



SMS: How to Get Started for the Small Operator

Contact: Bryan Smith
Phone: (239) 938-6144
Email: safety@alea.org

With all the information about Safety Management System (SMS) available today, getting started for a small operation can be overwhelming. It doesn't have to be, and in fact, you are probably well along at establishing a formal SMS. In most operations the following key elements already exist:

- Operations Manual
- Standard Operating Procedures (SOP)
- Operational Control of Aircraft Policies
- Training Objectives
- Aircraft Maintenance Procedures
- Risk Management

Additionally, you are aware of personal safety in the workplace, environmental concerns, the dangers of carrying hazardous materials, and security concerns both domestic and abroad. Through your training and your professional experience you are well prepared to recognize situations that would elevate risk on the job, e.g. fatigue, lousy weather, pressure from others. All of this is included in an SMS and you have it covered.

An SMS allows you to build a formal process around what you are already doing. Start with just two vitally important components of an SMS and then build from there. Each of these components can be accomplished very simply.

Step 1: Management Commitment

Draft a letter stating what your organization is committed to doing to ensure the safety of the operation. This can be a one-page document, and should be signed by an accountable executive, such as the owner or CEO.

The statement should include the following four elements and may begin like this:

SAFETY STATEMENT

All employees are responsible to conduct all operations at Bob's Helicopter Service in the safest manner possible. No mission or customer is so important as to require deviation from safety policies, procedures, industry standards, or the prudent judgment of our employees. Our Just Culture approach provides an environment where safe operations are always the priority in every task we undertake.

Key Elements of a Safety Statement:

1. What are you committed to?
2. How will you fulfill the commitment?
3. Who's responsible?
4. Non-punitive reporting culture

What are you committed to?

This could include statements such as "provide a safe and healthy workplace by preventing injuries and property damage" or "meet or exceed all flight, maintenance, occupational safety and health standards and regulations."

How will you fulfill the commitment?

Include statements such as:

- "Management to commit the necessary resources"
- "Create and maintain an environment of trust and unrestricted communication"
- "Implement a SMS"
- "Review company risk levels on a regular basis"

Who's responsible?

"Everyone is responsible and is fully accountable under a "Just Culture" when there is a knowing disregard for policies and procedures".

Why do I need this?

A written statement from the accountable executive is very powerful in giving validity and establishing expectations of the company. Without management's specific delegation of authority in the SMS program, those tasked with implementing safety initiatives could be undermined.

Step 2: Flight Risk Assessment Tool (FRAT)

In addition to a commitment letter, begin using a risk assessment tool. Every flight has an element of risk associated with it. It is critical that operators and pilots are able to objectively differentiate, in advance, between a low risk flight and a high risk flight. A simple risk assessment tool can help to determine the risk level of a flight or duty period in its planning stages.

Each operator should determine an acceptable level of risk for its flights based on the type of operation/mission, environment, aircraft used, crew training, and experience. When the risk for a flight exceeds the acceptable level, the hazards associated with that risk should be further evaluated and the risk mitigated (reduced).

Definition of key words:

Hazard – something that might cause injury or damage, or an undesirable event.

Risk – The product of the likelihood that an event will occur and the severity of the consequences of that event.

Mitigation – A way to reduce the level of risk.

The risk assessment tool does not have to be complicated. It can be as simple as a checklist. It can be on paper or an electronic version. It should include areas to think about such as:

- **Mission** – routine or out of the ordinary; urgency; area of operation; flight type (passenger, repositioning, training); NOTAMs; TFRs; etc.
- **Personnel** – Experience level of the crew

- **Human Factors** – fatigue assessment; hours on duty; flight time; consecutive days on duty; >30 days since last operating equipment; etc.
- **Aircraft** – open MELs; unscheduled maintenance since last flight
- **Environment** – weather; terrain; time of day; inflight hazards
- **Landing Zones** – hazards; airport conditions, runway conditions; approach type

Example Risk Assessment Form:

PRE-FLIGHT RISK MANAGEMENT CHECKLIST		RISK LEVEL	
SINGLE PILOT CREW		Low	High
PERSONNEL/UNDESIRABLE			
Illness	No problems. Physically fit to fly. No alcohol consumption for 8 hours. No medication in the last 24 hours. Under the control of medication.	0	0
Hours	Stop! Get relieved from duty	0	X
Time	Stop! Get relieved from duty	0	0
Weather	Stop! Get relieved from duty	0	0
Altitude	Stop! Get relieved from duty	0	0
Speed	Stop! Get relieved from duty	0	0
Visibility	Stop! Get relieved from duty	0	0
Temperature	Stop! Get relieved from duty	0	0
Pressure	Stop! Get relieved from duty	0	0
Humidity	Stop! Get relieved from duty	0	0
Wind	Stop! Get relieved from duty	0	0
Clouds	Stop! Get relieved from duty	0	0
Thunder	Stop! Get relieved from duty	0	0
Turbulence	Stop! Get relieved from duty	0	0
Thunderstorms	Stop! Get relieved from duty	0	0
Other	Stop! Get relieved from duty	0	0

The above FRAT can be obtained at no cost from the European Aviation Safety Agency (EASA).
<https://easa.europa.eu/essi/ehest/2012/06/pre-departure-check-list>

Retain copies of all risk assessments in one place (i.e. Risk Register). Periodically review and look for reoccurring risks within your operation. By doing this you have begun the process of data gathering and analysis for ongoing improvement.



This document is a peer reviewed publication by an expert panel of the USHST SMS Committee. More information about the USHST/IHST, their reports, safety tools, and presentations can be obtained at the web site: www.USHST.org.

Also refer to the IHST SMS Toolkit, 2nd Edition for more SMS reference material (pages 36-39):
http://www.ihst.org/Portals/54/2009_SMS_Toolkit_ed2_Final.pdf