OAS-43
(4/18)

Department of the Interior
Accident Prevention Bulletin

Subject: Safety Management Systems (SMS)

Area of Concern: SMS In Flight Operations

Distribution: All Aviation Operations.

Discussion: Many of you may have heard about Safety Management Systems or "SMS" without any context as to what it is or how it works. This has created some anxiety and may be perceived as "more useless paperwork" that will be required. The intent of this Accident Prevention Bulletin is to reduce that anxiety because you may already be doing it!

Safety Management Systems have become the standard for aviation operations. It is the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. SMS addresses the organization's role in safety by including requirements that will positively impact the organization and by enhancing the safety culture encompassing leadership, management, and employees. Whether you realize it or not, all bureau aviation programs already possess some basic tenants of SMS.

The four components of SMS are Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.

Safety Policy. It may seem like there is an abundance of policy. However, it is the critical first piece that lays out "what" we are going to do and "how" we are going to do it. It's critically important that the policy is relevant and up to date, as outdated policy can be just as hazardous as no policy at all. Federal Management Regulation 102-33 (Management of Government Aircraft) prescribes basic requirements for all federal agencies that use aircraft. The Departmental Manual (DM) provides the over-arching Departmental (parent) policy that also prescribes for each bureau to develop subordinate policies and procedures that are more directly applicable to their respective type(s) of operations. Bureau policies may prescribe even more detailed policies at the regional or unit level.

All Departmental Aviation Operations:

Department Manual (DM Series 112, 350-353)

Operational Procedures Memorandum (OPM)

Bureau Aviation Operations:

BIA - BIA National Aviation Plan

BLM - 9400 Aviation Management, National Aviation Plan

BOEM - BOEM National Aviation Management Plan

BOR - National Aviation Management Plan

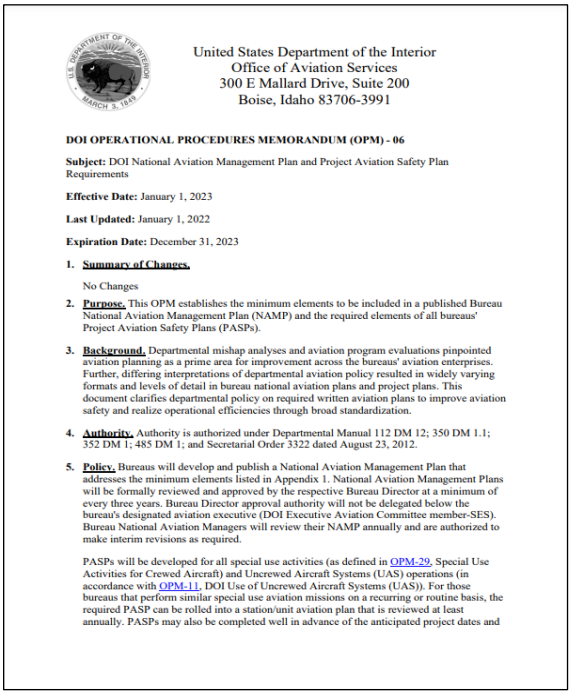
BSEE - BSEE National Aviation Management Plan

FWS - 330 FW 3-5 Aviation Management Program

NPS - Aviation Management Reference Manual (RM)-60

OSMRE - National Aviation Management Plan

USGS - USGS National Aviation Management Plan



United States Department of the Interior
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DOI OPERATIONAL PROCEDURES MEMORANDUM (OPM) - 06

Subject: DOI National Aviation Management Plan and Project Aviation Safety Plan Requirements

Effective Date: January 1, 2023

Last Updated: January 1, 2022

Expiration Date: December 31, 2023

1. **Summary of Changes.**

   No Changes

2. **Purpose.** This OPM establishes the minimum elements to be included in a published Bureau National Aviation Management Plan (NAMP) and the required elements of all bureaus' Project Aviation Safety Plans (PASPs).

3. **Background.** Departmental mishap analyses and aviation program evaluations pinpointed aviation planning as a prime area for improvement across the bureaus' aviation enterprises. Further, differing interpretations of departmental aviation policy resulted in widely varying formats and levels of detail in bureau national aviation plans and project plans. This document clarifies departmental policy on required written aviation plans to improve aviation safety and realize operational efficiencies through broad standardization.

4. **Authority.** Authority is authorized under Departmental Manual 112 DM 12; 350 DM 1.1; 352 DM 1; 485 DM 1; and Secretarial Order 3322 dated August 23, 2012.

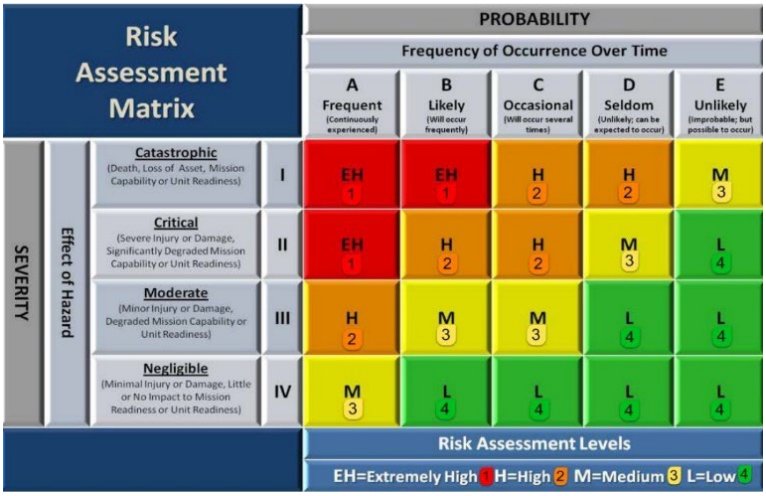
5. **Policy.** Bureaus will develop and publish a National Aviation Management Plan that addresses the minimum elements listed in Appendix 1. National Aviation Management Plans will be formally reviewed and approved by the respective Bureau Director at a minimum of every three years. Bureau Director approval authority will not be delegated below the bureau's designated aviation executive (DOI Executive Aviation Committee member-SES). Bureau National Aviation Managers will review their NAMP annually and are authorized to make interim revisions as required.

   PASPs will be developed for all special use activities (as defined in OPM-29, Special Use Activities for Crewed Aircraft) and Uncrewed Aircraft Systems (UAS) operations (in accordance with OPM-11, DOI Use of Uncrewed Aircraft Systems (UAS)). For those bureaus that perform similar special use aviation missions on a recurring or routine basis, the required PASP can be rolled into a station/unit aviation plan that is reviewed at least annually. PASPs may also be completed well in advance of the anticipated project dates and

Safety Risk Management. The purpose of risk management is to identify hazards and to manage and reduce the risks associated with the hazards. Risk management and safety assurance are interconnected must be actively managed to ensure their success. Examples of risk management include:

- Operational Risk Assessments
- Project Aviation Safety Plans
- Flight Risk Assessments

Safety Assurance. Audits, reviews, program evaluations are all examples of safety assurance. Safety assurance tells you whether you are "walking the walk" or just "talking the talk". It also serves as an important means to measure the effectiveness of respective policies and procedures within any given area and eliminates guesswork in making improvements. Platitudes on safety do nothing if actions don't reflect policy.



Risk Assessment Matrix			PROBABILITY				
			Frequency of Occurrence Over Time				
			A Frequent (Continuously experienced)	B Likely (Will occur frequently)	C Occasional (Will occur several times)	D Seldom (Unlikely; can be expected to occur)	E Unlikely (Improbable; but possible to occur)
SEVERITY	Effect of Hazard	Catastrophic (Death, Loss of Asset, Mission Capability or Unit Readiness) I	EH 1	EH 1	H 2	H 2	M 3
		Critical (Severe Injury or Damage, Significantly Degraded Mission Capability or Unit Readiness) II	EH 1	H 2	H 2	M 3	L 4
		Moderate (Minor Injury or Damage, Degraded Mission Capability or Unit Readiness) III	H 2	M 3	M 3	L 4	L 4
		Negligible (Minimal Injury or Damage, Little or No Impact to Mission Readiness or Unit Readiness) IV	M 3	L 4	L 4	L 4	L 4
			Risk Assessment Levels				
			EH=Extremely High 1 H=High 2 M=Medium 3 L=Low 4				

The following are best practices from the Aviation Program Evaluations conducted by OAS:

- Utilization of tiered management plans as a means of ensuring National, Regional/State and Local Aviation Management Plans are consistent.
- ALSE inspection and tracking program in place, facilitating consistent compliance with ALSE Handbook requirements.
- M-3 training included in consolidated management meetings to ensure Line Managers and Supervisors meet OPM-04 requirements.

- Aviation Mishap Response Plans exercised at a minimum of annually to prepare personnel and improve response.
- Aviation Managers and Procurement Specialists proactive communication regarding end-product contracts to ensure OPM-35 compliance.

Safety Promotion. Safety promotion includes training, communication, personnel and organization awards, and other actions to create a positive safety culture within all levels of the workforce. Everyone has a role in promoting safety.

Following are just a few examples of Safety Promotion:

OAS Publications:

- Interagency Safety Alerts
- Interagency Accident Prevention Publications
- Interagency Lessons Learned
- Annual Aviation Safety Summary

Aviation Safety Awards (Airwards)

- Safe Flying Award
- Inflight Action Award
- Significant Contribution to Aviation Safety
- Departmental [Secretary's] Award For Outstanding Contribution to Aviation Safety

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No. DOI APB 22-02 **Date: March 25, 2022** **Page 1 of 1**

Subject: SOLO UAS Battery Life

Area of Concern: Flight Safety

Distribution: All Fire and Aviation Activities

Discussion: Back in January, a Remote Pilot-in-Command (RPIC) conducted a test on a collection of original 3DR Solo batteries that had not been used in 27 months. Over 24 batteries were tested and all demonstrated stable and reliable performance down to 35%. At or below 30%, many of the batteries exhibited rapid and sometimes significant power reduction. In a few cases, the power dropped below 20% in a matter of seconds. All aircraft were landed safely (SAFECOM #22-0091).

This test highlighted a safety of flight issue when the batteries are approaching 35%. As a result, 3DR solo batteries should not be flown below that threshold and flights should plan to terminate prior to reaching the 35% limitation. Landing battery levels should also be recorded on field forms to document and ensure compliance with this revised safety practice.

For additional information, please contact Steve Stroud, OAS UAS Division at 208-830-8596 / steven_stroud@ios.doi.gov or Steve Ramaekers, OAS UAS Division at 208-473-8708 / steven_ramaekers@ios.doi.gov.

/s/ Keith Raley

Keith Raley
Chief, Aviation Safety, Training, Program Evaluations and Quality Management

SMS Development Tools and Programs

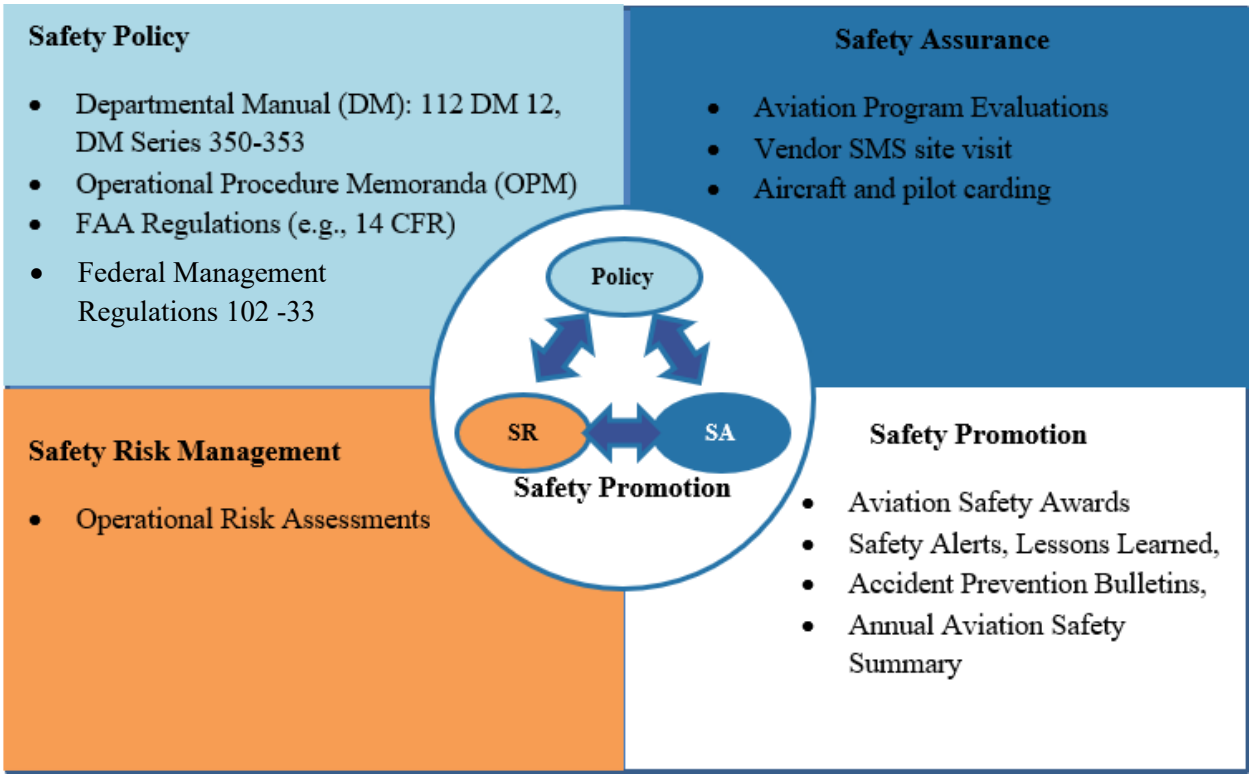
The following are just a few organizations that offer SMS accreditation. Accreditation is the external recognition of adherence to a set of expanded standards to perform an activity or hold a certain status – in this case, safety standards as determined by the accrediting entity (IS-BAO, FAA, HAI, etc.). Third party auditing is required to ensure compliance with respective accreditation standards with the ultimate goal of providing operators with the foundation for safe operating practices, enhanced professionalism, economic efficiency, and overall greater mission effectiveness.

Federal Aviation Administration (FAA) / SMS Voluntary Program (SMSVP) / Procedures and requirements for non-14 CFR part 121 Air Operators and Air Agencies who would like to voluntarily implement an SMS. / More info: https://www.faa.gov/about/initiatives/gasafetyoutreach/smsvp

International Standard for Business Aircraft Operations (IS-BAO) / Stage 1/2/3 SMS Accreditation / Meeting a recommended code of best practices designed to help flight departments worldwide achieve high levels of safety and professionalism. / More info: https://nbaa.org/flight-department-administration/sms/is-bao/

Helicopter Association International (HAI) / HAI SMS Program / HAI SMS Program services allow users to verify their compliance with current and future international and domestic regulations./ More info: https://rotor.org/resources/sms-program/

The following diagram shows the relationship between the four SMS components and existing Department of the Interior (DOI) policies, programs, and practices.



So hopefully, if you hear "we are doing SMS", you can be assured that it is not a new program that will impose an undue hardship, but rather an effort to improve operational effectiveness, quality, and safety within the existing framework.

/s/ Keith C. Raley

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