U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
National Policy

ORDER VS 8000.367B

Effective Date:
05/09/2017

SUBJ: Aviation Safety (AVS) Safety Management System Requirements

1. This order provides requirements to be met by all AVS services and offices in support of the Aviation Safety Safety Management System (AVSSMS). This order addresses neither occupational safety nor health nor personnel safety issues. This order addresses aviation safety and provides the means for continued evolution of a proactive approach to improving safety performance through requirements for AVS services and offices to:

a. Maintain capable organizations to oversee aviation safety;

b. Identify hazards that can impact the safety of the aerospace system and establish controls/mitigations to reduce safety risk; and

c. Oversee aviation product/service providers' implementation of an SMS to identify safety priorities, reduce safety risk, and monitor safety performance.

2. Each service and office plays a role in the AVSSMS. Therefore, all AVS services and offices' SMS processes must ensure full conformance with this order as well as proper alignment with:

a. SMS processes in other AVS services and offices; and

b. SMS processes in product/service provider organizations for which the AVS service has oversight responsibility, if applicable.

John J. Hickey
Acting Associate Administrator for Aviation Safety

Table of Contents

Chapter 1. General Information

1. Purpose of This Order. This order defines the functional requirements for the Safety Management System (SMS) in Aviation Safety (AVS).

2. Audience. This order applies to all personnel in AVS. However, it is primarily to be used by those individuals who are directly involved in implementing and managing the AVSSMS; by AVS management; and by those overseeing aviation product/service providers' development, implementation, and continued performance of their SMS.

3. Where You Can Find This Order. You can find this order on the MyFAA Employee Web site: https://employees.faa.gov/tools_resources/orders_notices/. This order is available to the public at http://www.faa.gov/regulations_policies/orders_notices/

4. Cancellation. FAA Order VS 8000.367A, *Aviation Safety (AVS) Safety Management System Requirements*, dated November 30, 2012.

5. Explanation of Changes. This revision does the following:

a. Adds an introduction to Chapters 2, 3, 4, and 5.

b. Adds an "Organizational Structure, Roles, and Responsibilities" paragraph.

c. Establishes the AVSSMS Management Board and the AVSSMS Coordination Group.

d. Directs AVS services and offices to the current revision of FAA Order 8040.4 for Safety Risk Management (SRM).

e. Incorporates Hazard Identification, Risk Management & Tracking (HIRMT) tool requirements.

f. Merges Chapter 4, *Safety Assurance Within AVS*, and Chapter 5, *AVS Safety Assurance of Product/Service Providers*, into one chapter.

g. Establishes the requirement that AVS services and offices use data/information collected through the investigation of accidents and incidents, as described in FAA Order 8020.11, *Aircraft Accident and Incident Notification, Investigation, and Reporting*.

6. Background.

a. The FAA's mission is to provide the safest, most efficient aerospace system in the world. To support its mission to enhance safety for the flying public and strengthen the FAA's worldwide leadership in aviation safety, the FAA has chosen to implement an SMS to integrate the management of safety risk into business planning, operations, and decision making. Further, the International Civil Aviation Organization (ICAO) has established frameworks for a State Safety Program (SSP), applicable to Member States, and SMS, applicable to product/service provider organizations. Because the FAA is comprised of regulatory as well as product/service provider organizations, the FAA decided to implement an SMS, which will meet the tenets of both the ICAO SSP and SMS

frameworks. Consequently, AVS has also chosen to meet the tenets of both the SSP and the SMS frameworks in order to ensure interoperability with SMSs in other FAA Lines of Business (LOBs) and Staff Offices, in accordance with the current version of FAA Order 8000.369, *Safety Management System*.

b. The AVSSMS consists of four main components: Safety Policy, SRM, Safety Assurance, and Safety Promotion. These components are covered in more detail in the body of this order. The components work together to enable AVS to manage the safety risk in the aerospace system.

(1) Safety Policy is the organization's documented commitment to safety, which defines its safety objectives and the accountabilities and responsibilities of its employees with regard to safety. The Safety Policy links organizational safety objectives to the organization's goals and establishes employees' accountabilities and responsibilities in regard to achieving those goals.

(2) SRM is a process within the SMS composed of describing the system; identifying the hazards; and analyzing, assessing, and controlling risk.

(3) Safety Assurance includes processes within the SMS that function systematically to ensure the performance and effectiveness of safety risk controls and that the organization meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

(4) Safety Promotion is a combination of training and communication of safety information to support the implementation and operation of an SMS in an organization.

c. The AVSSMS supplements existing Codes of Federal Regulation (CFRs) and other FAA guidance and orders. Together, they are the basis for:

(1) Identifying hazards in the aerospace system and developing or modifying safety risk controls, which are promulgated in the form of regulations, standards, orders, directives, policies, etc.;

(2) Specifying the regulatory basis for compliance with requirements;

(3) Specifying acceptable means of compliance with requirements;

(4) Providing Safety Assurance of the product/service provider organizations for which AVS has oversight responsibility through conducting design assurance when issuing certificates and approvals and conducting performance assurance to assure continued operational safety[1];

(5) Requiring corrective action and, if necessary, taking enforcement actions; and

(6) Approving, accepting, or concurring with product/service provider SMSs and overseeing their continual compliance with SMS requirements.

[1] Design and performance assurance are further described in Chapter 4.

7. Scope.

a. Applicability and Scalability. The AVSSMS is the formal, AVS-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. AVS services and offices must meet all pertinent requirements contained in this order.

(1) AVS has the ultimate responsibility and is accountable for the safety oversight of the aerospace system as delegated by the FAA Administrator. AVS services and offices have oversight responsibility for different components of the aerospace system with varying levels of direct impact on safety. Therefore, it is expected that AVS services and offices' SMS-related processes should, on some level, be scalable and flexible, and some of the requirements in this order will be more applicable to some of the services and offices than others.

(2) A specific example of scalability is in the application of SRM in which the extent and structure of safety risk assessment that is necessary will be greater when the item/issue to be assessed is more complex and effects of the hazards are more severe. The intent of the AVSSMS is to focus on the areas of greatest concern from a safety perspective, taking into account safety risk, complexity, operational scope, impact to the aerospace system, etc.

b. SMS Process Alignment. This order describes the *functional* requirements for the AVSSMS. AVS services and offices must develop specific processes or procedures to meet these functional requirements within their organizations. However, to realize benefits of SMS at the aerospace system level, it is essential that functions within the services and offices are appropriately aligned with other AVS and FAA policies and processes to allow for efficient system-wide management of safety risk. Further, these functions must also be interrelated to SMS functions in product/service provider SMSs.

c. AVSSMS and AVS Role as Regulator of Product/Service Providers' SMS.

(1) This order uses the term product/service providers when referring to the entities over which FAA has safety oversight responsibility. Entities that provide products and services include manufacturers, operators, maintenance organizations, training organizations, air traffic service providers, and others. Entities may be organizations or individuals. Aviation product/service providers are responsible for the safety of their products and services; they must be in compliance with safety regulations and standards established by the Department of Transportation (DOT) and the FAA. The DOT and the FAA are responsible for establishing the safety regulations and standards that provide requirements for product/service providers' systems. The FAA's responsibilities include defining the requirements for those systems; applying risk-based safety oversight; and verifying that the safety systems of product/service providers meet applicable requirements and that their processes, products, and services continue to do so during the operational phases of their lifecycle.

(2) With SMS, the FAA is better able to conduct safety oversight by focusing resources using safety management principles. The FAA verifies compliance with regulations using a variety of means such as audits, evaluations, and inspections. The FAA also confirms implementation and effectiveness of the product/service provider's safety systems.

(3) Regulations serve as safety risk controls. AVS organizations with product/service provider oversight responsibility must apply the concepts of SRM to decisions that may lead to the initiation of

regulatory changes through rulemaking. Doing so ensures that regulations address hazards in the aerospace system and provide boundaries on acceptability of design and performance of products and services. Regulations and subsequent oversight activities are part of a systematic strategy of safety risk control.

(4) AVS conducts SRM throughout the levels of the aerospace system for the purpose of managing safety at the highest level. AVS implements risk management strategies of regulations, standards, and policy. Aviation product/service providers are responsible for managing safety for their operations. They control resources and activities of people directly exposed to hazards and are in a position to directly control risk related to those hazards. This would include design and performance of actions to control risk within the expectations of regulations relevant to their operations. This is, essentially, "effective compliance." At no point is AVS, in an oversight capacity, responsible for primary Safety Assurance or for performing SRM for an individual or organizational aviation product/service provider. However, AVS, in an oversight capacity, uses its Safety Assurance processes within SMS to oversee product/service providers' application of SRM.

(5) With SMS, the FAA will still assure product/service provider compliance with regulations. Therefore, direct observation and surveillance is still required in the FAA oversight activities. However, they are used differently than in the past. Rather than solely assessing compliance with the regulations, the FAA will also assess the effectiveness of service providers' safety management capabilities and performance. The goal is to enhance product/service providers' safety performance; therefore, the FAA's oversight methodology may be adapted based on product/service providers' safety management processes and demonstrated ability to manage safety risk.

d. AVSSMS and AVS Quality Management System (QMS). Prior to embarking on SMS implementation, AVS implemented a Quality Management System (QMS) that meets the International Organization for Standardization (ISO) 9001 Standard. Safety management and quality management are complementary and must work together to achieve the overall safety objectives of AVS. A primary objective of AVS is to establish a management system that has processes and procedures in place so that safety performance is maintained at an acceptable level (safety management) and specified operational results are achieved (quality management). SMS assures that the design and implementation of organizational processes and procedures identify safety hazards and that they control and/or mitigate safety risk in aviation operations. QMS supports SMS by providing a structured approach to monitoring these processes and procedures to assure conformance, identify instances of nonconformance, provide tools for correction, and enable continuous improvement. While SMS provides the mechanisms for AVS to carry out its regulatory, certification, and continued operational safety management functions, QMS ensures that this framework is operating in a structured, repeatable fashion and is able to meet its intended objectives; and when it is not, QMS provides the means to improve. Therefore, all AVS services and offices will implement the AVSSMS on the principles of the QMS in place throughout AVS.

8. Organizational Structure, Roles, and Responsibilities.

a. Associate Administrator for Aviation Safety (AVS-1). The Associate Administrator for Aviation Safety (AVS-1) is the responsible executive for ensuring AVS conformance with all AVSSMS policies, processes, guidance, and tools. AVS-1 is responsible for resolving any safety management issues escalated to him or her that cannot be resolved at the AVSSMS Management Board level. AVS-1 ensures AVSSMS alignment with the FAA SMS and other FAA LOB safety management activities and engages with the appropriate agency leadership as needed. AVS-1 allocates the resources and funding needed to support the promotion, implementation, maintenance, and management of the AVSSMS.

b. AVSSMS Management Board.

(1) Responsibilities. This order establishes the AVSSMS Management Board. The AVSSMS Management Board is responsible for setting the strategic direction for the AVSSMS and establishing AVS's safety goals and objectives. It actively and visibly champions safety management efforts in support of an integrated AVSSMS. It provides executive-level guidance and conflict resolution for AVSSMS-related issues. The AVSSMS Management Board appoints an AVSSMS Program Manager to maintain and manage the AVSSMS. The AVSSMS Management Board provides the resources essential to incorporate, maintain, and improve the AVSSMS. It coordinates and collaborates with other FAA LOBs and Staff Offices regarding safety management and ensures that the AVSSMS is coordinated throughout the AVS services and offices. The AVSSMS Management Board approves AVS-level safety management guidance and actively promotes resolution of safety issues. The AVSSMS Management Board has the ultimate responsibility for the implementation and maintenance of the AVSSMS.

(2) Composition. The AVSSMS Management Board is chaired by the Deputy Associate Administrator for Aviation Safety (AVS-2) and is composed of senior-level management personnel, including the Directors of the Office of Accident Investigation & Prevention (AVP); Flight Standards Service (AFS); Aircraft Certification Service (AIR); Air Traffic Safety Oversight Service (AOV); Rulemaking (ARM); Quality, Integration and Executive Services (AQS); and the Unmanned Aircraft Systems Integration Office (AUS), as well as the Federal Air Surgeon in the Office of Aerospace Medicine (AAM).

c. AVSSMS Coordination Group.

(1) Responsibilities. This order establishes the AVSSMS Coordination Group, which works with and reports to the AVSSMS Management Board. This group provides assistance to AVS services and offices regarding safety management. The AVSSMS Coordination Group integrates safety management functions across AVS services and offices and standardizes processes, procedures, tools, and terminology, as appropriate. It is responsible for assigning ownership for assessing and addressing safety issues that cross AVS services and offices' areas of responsibility. The AVSSMS Coordination Group resolves disagreements between AVS services and offices regarding safety management, including disagreements related to SRM, and escalates disagreements to the AVSSMS Management Board that it cannot resolve at the Coordination Group level. The group also champions the continuous improvement of SMS, including sponsoring audits and evaluations to determine conformance with SMS requirements and status implementation and use of a consistent method for

measuring the performance and effectiveness of the SMS. The AVSSMS Coordination Group keeps the AVSSMS Management Board apprised of AVSSMS activities.

(2) Composition. The AVSSMS Program Manager serves as the Chair of the AVSSMS Coordination Group. The AVSSMS Coordination Group is composed of safety management professionals from each of the following AVS services and offices: AVP, AFS, AIR, AOV, AAM, ARM, AQS, and AUS.

d. AVS Services and Offices.

(1) Terminology. This order uses the phrase "AVS services and offices" when describing requirements that are the responsibility of every AVS service and office to implement and manage, to the extent that they are applicable, within their own organization. The terms "AVS" or "AVSSMS Management Board" are used in reference to overarching requirements or aspects of the SMS that are applicable AVS-wide; standardized and organization-wide processes and tools can be expected to address these requirements.

(2) AVSSMS Coordination Group Membership Responsibilities. Each AVS service and office is responsible for providing an organizational representative to serve as a member of the AVSSMS Coordination Group. This representative has the technical expertise in safety management to assist in the incorporation of SMS components and provide input to SMS activities. The representative provides organizational-specific information regarding safety management and SMS implementation. The representative is responsible for coordinating with service or office management to keep them apprised of AVSSMS activities, as well as support service or office leadership in their role on the AVSSMS Management Board. Each representative is responsible to coordinate the appropriate technical expertise from their service or office to address safety issues that are identified by, or brought to, the AVSSMS Coordination Group.

(3) AVSSMS Responsibilities. AVS services and offices must define and document management and employee responsibilities within their organizations for developing, implementing, maintaining, and operating SMS processes within their areas of responsibility, including, but not limited to:

(a) Identifying hazards, assessing safety risk, and making risk acceptance decisions;

(b) Assuring the effectiveness of safety risk controls and determining the need to modify existing or create new safety risk controls;

(c) Measuring and assessing safety performance;

(d) Advising leadership on the safety performance of the organization and the performance of the SMS, including identifying any necessary improvements; and

(e) Promoting safety and the SMS.

(4) SMS Oversight Responsibilities. In addition to implementation of the AVSSMS, each AVS service and office with product/service provider oversight responsibility is encouraged to establish programs to apply Title 14 of the Code of Federal Regulations (14 CFR) part 5, *Safety Management Systems for Domestic, Flag and Supplemental Operations*, to those organizations.[2]

e. Office of Accident Investigation and Prevention, Safety Management & Research Planning Division (AVP-300). AVP-300 manages the AVSSMS program and maintains its supporting policies, processes, and tools in support of AVS-1, the AVSSMS Management Board, and the AVSSMS Coordination Group. It measures safety performance for AVS and manages the identification and prioritization of safety issues that cross AVS services and offices' areas of responsibility. It also coordinates safety risk assessment efforts and tracks approved safety risk mitigations for those safety issues that cross AVS services and offices' areas of responsibility. AVP-300 is responsible for operating and maintaining the Hazard Identification, Risk Management and Tracking (HIRMT) tool. It also provides consultative services and guidance to help organizations regarding the use of the system. AVP-300 also represents AVS on the FAA SMS Committee, which was established by FAA Order 8000.369.

[2] Title 14 CFR part 5 establishes requirements for product/service provider SMSs. The provisions of part 5 are currently required for air carriers operating under 14 CFR part 121, although it also serves as the basis for SMS Voluntary Programs (SMSVPs) for other types of service providers. It is understood that in order to require certificate holders to meet part 5 requirements, the FAA must conduct rulemaking. However, AVS services and offices with oversight responsibility should consider whether establishing a voluntary program to apply part 5 is preferable to rulemaking.

Chapter 2. Safety Policy[3]

1. Introduction. Safety Policy establishes senior management's commitment to continually improving safety. It defines the methods, processes, and organizational structure that are needed to meet safety goals set forth within an organization. Both management and employees are accountable for Safety Policy, as it facilitates cross-organizational communication and cooperation.

2. General Requirements.

a. The AVSSMS Management Board is responsible for the organization's Safety Policy and is responsible for safety performance of the organization.

b. The AVSSMS Management Board is responsible for setting the strategic direction for the AVSSMS and establishing AVS's safety goals and objectives.

c. AVS services and offices must prioritize allocation of resources for safety management based on safety risk.

d. General Policy requirements for the AVSSMS are included in this order, along with requirements related to the establishment of acceptable levels of safety performance utilized throughout the SRM and Safety Assurance processes. The AVS Safety Policy itself is documented separately in the current version of FAA Order VS 8000.370, *Aviation Safety (AVS) Safety Policy*, and includes:

(1) A commitment to implementing and maintaining the AVSSMS to manage safety risk and continually improve safety in the aerospace system;

(2) A commitment to foster a positive safety culture by setting safety reporting requirements for non-punitive employee reporting of safety hazards or issues, and employees should be encouraged to provide proposed solutions/safety improvements when possible;

(3) Guidance for acceptable behavior;

(4) Guidance for setting and reviewing safety objectives; and

(5) Responsibilities and accountabilities of management and employees with respect to the AVSSMS and safety oversight responsibilities.

e. The AVSSMS must be documented in accordance with FAA directives and AVS QMS requirements, to include all safety policies, safety processes and procedures, and safety objectives. SMS outputs must be documented in accordance with FAA directives and AVS QMS requirements.[4]

[3] For more information, please refer to the current version of FAA Order VS 8000.370, *Aviation Safety (AVS) Safety Policy*.

[4] The term "SMS outputs" is defined in Appendix A. In general, an SMS output is the documented result of the conduct of SRM and Safety Assurance.

f. The AVS Safety Policy must be:

(1) Documented;

(2) Communicated to all employees and responsible parties;

(3) Consistent with FAA and AVS goals and objectives; and

(4) Reviewed periodically to ensure it remains relevant and appropriate to the organization.

3. Acceptable Levels of Safety Performance and Other Safety Objectives.

a. AVS services and offices with oversight responsibility must determine the acceptable level of safety performance for the component(s) of the aerospace system and each product/service provider for which it has oversight responsibility, as applicable.

b. AVS must determine the acceptable safety performance applicable to the entire aerospace system (excluding components outside AVS responsibility) in accordance with the current version of FAA Order 8040.4, *Safety Risk Management Policy*.

c. All AVS services and offices must establish and document safety objectives for their organizations that are measurable.[5] AVS services and offices must monitor these safety objectives and accompanying metrics to ensure that the safety objectives are being met.

d. AVS must establish and document measurable safety objectives at the AVS level. The AVSSMS Management Board must monitor AVS-level objectives and accompanying metrics to ensure that the safety objectives are being met.

4. Accident and Incident Response. AVS must establish a plan to respond to accidents and serious incidents.[6]

[5] Safety objectives can be expressed in either quantitative or qualitative terms. Safety objectives are typically developed annually and published in planning documents such as organizational business plans or work plans.
[6] For additional information regarding accident and incident response plans, please refer to the current version of Order 8020.11, *Aircraft Accident and Incident Notification, Investigation, and Reporting*.

Chapter 3. Safety Risk Management

1. Introduction. The objective of the SRM component of SMS is to provide a structured process for decision makers. The formal process is made up of five steps, including: describing the system, identifying the hazards, analyzing the risk, assessing the risk, and controlling the risk. Along with Safety Assurance functions, SRM assists the FAA in ensuring that hazards are identified and safety risk is managed to acceptable levels throughout the aerospace system. For additional information regarding SRM, please refer to the current version of FAA Order 8040.4.

2. General Requirements.

a. Applicability.

(1) SRM must be applied in order to:

(a) Analyze potential hazards identified through Safety Assurance processes;

(b) Determine the need for and develop safety risk controls to be applied in the aerospace system, which are, typically, established through rulemaking; and

(c) Conduct independent safety risk analyses to validate the results of a product/service provider's safety risk analysis and/or its SRM process, when necessary.

(2) SRM requirements do not preclude services and offices from taking immediate interim action to mitigate existing safety risk, prior to conducting SRM and identifying permanent mitigations.[7]

b. Safety Risk Management Process Alignment.

(1) AVS services and offices must establish interfaces between their SRM functions and:

(a) Their Safety Assurance functions (described in Chapter 4 of this order);

(b) SRM and Safety Assurance functions in other AVS services and offices, as appropriate; and

(c) AVS-level SRM and Safety Assurance functions.

(2) AVS services and offices must coordinate their internal SRM processes and tools with the AVSSMS Coordination Group to help ensure transparency, interoperability, and standardization (as much as is practicable) across AVS.

[7] In the operational environment, it is understood that high risk may exist in the short term while mitigations are in development.

3. Safety Risk Management Process.

a. Conducting Safety Risk Management.

(1) AVS services and offices, as applicable, must define and document an SRM process (or processes) for use within their organizations that meet the requirements contained in this order and are consistent with the current versions of FAA Orders 8000.369 and 8040.4.

(2) When hazards and/or their associated safety risk affect more than one service or office or affect FAA organizations outside of AVS, the process described in the current version of FAA Order 8040.4 must be used to conduct SRM, unless all stakeholder organizations agree to use a different process.

(3) FAA organizations with product/service provider oversight responsibility must apply the concepts of SRM to decisions that may lead to the initiation of regulatory changes through rulemaking.

b. Safety Risk Acceptance.

(1) AVS services and offices must define, as applicable, and document risk acceptance criteria, which includes the levels of management within their organization(s) that can make safety risk acceptance decisions.

(2) When hazards and/or their associated safety risk affect more than one service or office or affect FAA organizations outside of AVS, the risk acceptance criteria in the current version of FAA Order 8040.4 are used, unless all stakeholder organizations agree to use different criteria. Any agreements to use different criteria must be documented.

c. Documenting, Monitoring, and Tracking.

(1) AVS services and offices must document the results of each step of SRM in accordance with the requirements in the current version of FAA Order 8040.4.

(2) AVS services and offices must define criteria regarding monitoring and tracking hazards, their associated risk, and related safety risk mitigations that are consistent with the current version of FAA Order 8040.4.

(3) AVS services and offices must use HIRMT to track and monitor Aerospace System Level (ASL) issues.[8]

[8] The current version of FAA Order 8040.4 establishes the criteria for ASL and requires FAA organizations to use HIRMT to capture pertinent information regarding ASL issues. FAA organizations that have a documented process/tool for capturing and managing safety issues that is comparable to the process in HIRMT can request an exemption from using HIRMT by submitting a request to the FAA SMS Committee, as described in the current version of FAA Order 8040.4. For more information regarding HIRMT and to obtain access to the tool, please refer to the HIRMT site on the FAA intranet at https://hirmt.faa.gov or contact the HIRMT Help Desk at 9-natl-hirmt-helpdesk@faa.gov.

(4) When hazards and/or their associated safety risk affect more than one service or office or affect FAA organizations outside of AVS, HIRMT must be used to document, track, and monitor hazards, their associated safety risk, and related safety risk mitigations, unless all stakeholder organizations agree to use a different tool. Any agreements to use a different tool must be documented.

Chapter 4. Safety Assurance

1. Introduction. The objective of the Safety Assurance component of SMS is to support identification of potential new hazards and determine whether or not implemented risk control strategies are adequately mitigating safety risk. Data is collected within AVS organizations through employee reporting systems, auditing, and assessments to ensure conformance with various SMS requirements and FAA orders, standards, and policies. AVSSMS has a dual Safety Assurance focus, with an emphasis on both AVS organizations and product/service providers. Therefore, AVS services and offices with oversight responsibility have additional responsibilities, in some cases, with regards to Safety Assurance. In order to meet these responsibilities, AVS services and offices that oversee product/service providers also collect operational data from the segments of the aerospace system that they oversee.

2. General Requirements.

a. Purpose. AVS services and offices must monitor their systems and components of the aerospace system to:

(1) Assess product/service providers' compliance with regulatory requirements and any other safety risk controls set by the FAA, as well as those developed as a result of the product/service providers' SRM processes, if applicable;

(2) Measure and assess the effectiveness of safety risk controls set by AVS or by product/service providers, and determine the need for additional safety risk controls or changes to existing controls (which would be determined through application of the SRM process)[9], if applicable;

(3) Assess the overall performance of product/service providers' operational systems/processes and SMSs, if applicable;

(4) Assess AVS service or office conformance with FAA safety policies and procedures;

(5) Assess AVS service or office safety performance against organizational safety objectives; and

(6) Identify potential new hazards, ineffective risk controls, and changes in the operational environment that may introduce new hazards or affect safety risk.

b. Safety Assurance Process Alignment. AVS services and offices must establish interfaces between their Safety Assurance functions and:

(1) Their SRM functions (described in Chapter 3 of this order);

(2) Safety Assurance functions of other AVS services and offices;

[9] Additional safety risk controls and/or changes to existing controls would be developed through application of the SRM process.

(3) AVS-level SRM and Safety Assurance functions; and

(4) Product/service providers' SRM and Safety Assurance functions, if applicable.

c. Establish Criteria for Change Approval. AVS services and offices with oversight responsibility must establish the criteria for the types of planned changes for which a product/service provider must receive AVS approval prior to implementation in the operational system.

d. Safety Assurance of Product/Service Providers. AVS services and offices with oversight responsibility must conduct Safety Assurance of product/service providers' design and performance, based on functional descriptions or models of the product, service, or process to be assessed, which involves assessing the effectiveness of product/service providers' safety management capabilities and safety performance.

(1) Design Assurance. Design assurance is the function of ensuring that the safety of the product/service provider's designs are in compliance with established requirements and standards, and that the designs include the appropriate safety risk controls to meet safety objectives.

(a) AVS services and offices with oversight responsibility must:

1) Use design assurance for the certification of organizations or products and to approve or accept programs and/or processes;

2) Use outputs of the product/service provider organizations' processes to identify and mitigate safety risk, or standards that have been determined to be acceptable by the FAA, as inputs to their decisions regarding acceptance or approval (i.e., certification) of new and modified designs (e.g., product designs, organizational designs, new or modified operating practices); and [10]

3) Confirm that product/service providers' designs are in compliance with established requirements and include appropriate safety risk controls.[11]

(b) If a product/service provider submits a system design that is not in compliance with established requirements and include appropriate safety risk controls, the proposal may be sent back to the product/service provider for further analysis/study with an explanation of deficiencies.

[10] If the product/service provider has an SMS, implemented either by regulations or under an FAA-sponsored voluntary program, the outputs would be from its SRM processes.

[11] Safety risk controls are an output of the product/service provider processes to manage safety risk or FAA policy. If the product/service provider has an SMS, implemented either by regulations or under an FAA-sponsored voluntary program, the risk controls would be developed through their SRM processes.

(2) Performance Assurance. Performance assurance is the function of ensuring that the product/service provider's performance meets safety objectives and that their risk controls are effective.

(a) AVS services and offices with oversight responsibility must:

1) Use performance assurance to determine the continued operational safety of products and processes, including the need for corrective action on the part of the product/service provider;

2) Use outputs from the product/service provider organizations' processes used to assure the safety of their products and services as inputs to their assurance of the safety performance of those organizations; and [12]

3) Confirm that product/service providers' performance is in accordance with the design that is accepted or approved.

(b) If an AVS service or office determines that a product/service provider's performance is not in accordance with the system design that is accepted or approved, it may require that the product/service provider take action.

3. Safety Assurance Process. AVS services and offices must ensure they maintain/improve safety within the component(s) of the aerospace system for which they are responsible by using the following Safety Assurance processes:

a. Information Acquisition.

(1) AVS services and offices must collect and maintain the data/information necessary to meet the requirements in Chapter 4, subparagraph 2a. In addition to the standard data sources used by AVS services and offices, data/information collected from the following non-exclusive list of sources should be used for Safety Assurance:

(a) Employee and stakeholder reporting.

1) AVS services and offices must provide their employees with options for non-punitive reporting of hazards, issues, concerns, occurrences, incidents, etc., and encourage them to use these reporting systems without reprisal.[13]

2) AVS services and offices must provide their product/service providers options available for non-punitive reporting of hazards, issues, concerns, occurrences, incidents, etc., in accordance with existing reporting requirements and agreements.

[12] If the product/service provider has an SMS, implemented either by regulations or under an FAA-sponsored voluntary program, the outputs would be from its Safety Assurance processes.

[13] AVS employees are an important resource for information. There are multiple mechanisms, both formal and informal, through which they provide information.

(b) Investigation. AVS services and offices must use data/information collected through the investigation of accidents and incidents, as described in the current version of FAA Order 8020.11, *Aircraft Accident and Incident Notification, Investigation, and Reporting*.

(c) Auditing within AVS. AVS services and offices must conduct regular audits of their processes in accordance with the AVS QMS, to include SMS-related processes. Audits must be conducted with priority given to areas of highest safety risk.

(d) Auditing of Product/Service Providers (Surveillance and Sampling). AVS services and offices must conduct audits of their product/service providers' products, processes, and services to assess compliance with safety risk controls established by the FAA and validate outputs of the product/service providers' operational processes. If the product/service provider has an SMS, implemented either by regulations or under an FAA-sponsored voluntary program, audits are also used to validate the outputs of the SMS.

(e) Additional Sources. AVS services and offices may use other sources of information in addition to formal audits, such as surveys, ramp checks, and check rides, in order to appraise process efficiencies, implementation status, etc.

(2) AVS services and offices must make the data/information it collects for safety management available to other AVS services and offices, AVS-level functions, and other FAA LOBs (unless protected by law or other agreements).

b. Analysis of Data/Information. AVS services and offices must analyze the data/information described in Chapter 4, subparagraph 3a to meet requirements in Chapter 4, subparagraph 2a.

c. System Assessment. Using the results of the data/information analyses described in Chapter 4, subparagraph 3b, AVS services and offices must conduct system assessments to:

(1) Measure and assess the effectiveness of safety risk controls and identify ineffective controls;

(2) Assess the performance of the components of the aerospace system for which the service or office has oversight responsibility;

(3) Determine whether organizational safety objectives have been met;

(4) Assess conformance with the SMS requirement(s) in this order;

(5) Identify potential new hazard(s); and

(6) Detect potential hazard(s).[14]

[14] The SRM process must be utilized if the assessment indicates that a potential hazard has been found. Note for those AVS services and offices with oversight responsibility of product/service providers, this often involves activating product/service providers' processes to assess and, if necessary, mitigate the safety risk.

d. Corrective Action.

(1) When instances of nonconformance, noncompliance, potential hazards, or ineffective controls are identified, AVS services and offices must prioritize and implement corrective actions.

(2) Corrective actions for noncompliance with regulatory requirements must be accomplished in accordance with the current version of FAA Order 8000.373, *Federal Aviation Administration Compliance Philosophy*, and the appropriate service or office orders that support FAA Order 8000.373 to ensure that emphasis is placed on compliance actions, enforcement, or other actions that will most effectively control the risk addressed in the respective regulation.

Chapter 5. Safety Promotion

1. Introduction. Safety promotion is a combination of training and communication of safety information to support the implementation and operation of an SMS in an organization. It is necessary to create and promote a positive safety culture among all employees, consisting of shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands.

2. General Requirements.

a. The AVSSMS Management Board must promote the growth of a positive safety culture within AVS through:

(1) Publishing and visibly demonstrating senior management's commitment to safety;

(2) Communicating the safety responsibilities of the organization's personnel and ensuring they have the necessary competencies to perform duties relevant to the operation and performance of the SMS;

(3) Clear and regular communication of Safety Policy, goals, objectives, standards, and performance to all employees and stakeholders; and

(4) Fostering a voluntary, cooperative, non-punitive environment for the open reporting of safety concerns.

b. AVS services and offices must promote the growth of a positive safety culture within product/service provider organizations.

3. Communication and Awareness.

a. The AVSSMS Coordination Group provides a forum for AVS services and offices to communicate regarding safety issues of mutual concern and facilitates cooperation to address them.

b. The AVSSMS Coordination Group promotes SMS policy and awareness within AVS via training, conferences/workshops, communications, and other efforts.

c. AVS services and offices must coordinate SRM analyses and proactively share safety-related information and information regarding safety issues being managed within their organizations with affected parties (e.g., their employees, other AVS services and offices, FAA organizations, industry stakeholders, and other U.S. and foreign government agencies).

4. Personnel Competency and Training.

a. AVS services and offices must maintain a workforce with the competencies necessary to perform duties relevant to the operation and performance of the AVSSMS.

b. The AVSSMS Coordination Group ensures that overview training is provided to make employees aware of the AVSSMS and the organizational commitment to safety management.

Chapter 6. Administrative Information

1. Distribution. This order is distributed to all AVS services and offices.

2. Related Publications. The current versions of the following documents are related to the subject matter in this order:

a. FAA Order 8000.369, *Safety Management System.*

b. FAA Order 8020.11, *Aircraft Accident and Incident Notification, Investigation, and Reporting*.

c. FAA Order 8040.4, *Safety Risk Management Policy*.

d. FAA Order VS 8000.370, *Aviation Safety (AVS) Safety Policy*.

e. FAA Order VS 1300.2, *Aviation Safety (AVS) Quality Management System (QMS).*

f. FAA Order 8000.373, *Federal Aviation Administration Compliance Philosophy*

g. Title 14 of the Code of Federal Regulations (14 CFR) part 5, *Safety Management Systems*.

h. International Civil Aviation Organization Annexes 1, 6, 8, 11, 13, 14, and 19.

i. International Civil Aviation Organization Document 9859, *ICAO Safety Management Manual*.

j. International Civil Aviation Organization Document 9734, *Safety Oversight Manual*.

3. Authority to Change This Order. AVS-1 has authority to issue changes and revisions to this order.

Appendix A. Definitions

1. Acceptable Risk – The level of risk that individuals or groups are willing to accept given the benefits gained. Each organization will have its own acceptable risk level, which is derived from its legal and regulatory compliance responsibilities, its threat profile, and its business/organizational drivers and impacts.

2. Accident – An unplanned event or series of events that results in death, injury, or damage to, or loss of, equipment or property.

3. Aerospace System – U.S. airspace, all manned and unmanned vehicles operating in that airspace, all U.S. aviation operators, airports, airfields, air navigation services, pilots, regulations, policies, procedures, facilities, equipment, and all aviation-related industry.

4. Aircraft Accident – An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

5. Corrective Action – Action to eliminate or mitigate the cause or reduce the effects of a detected nonconformity, noncompliance, or other undesirable situation.

6. Design Assurance – The function of ensuring that the safety of product/service provider's designs are in compliance with established requirements and standards and the designs include the appropriate safety risk controls to meet safety objectives.

7. Hazard – A condition that could foreseeably cause or contribute to an aircraft accident.

8. Incident – An occurrence other than an accident that affects or could affect the safety of operations.

9. Likelihood – The estimated probability or frequency, in quantitative or qualitative terms, of a hazard's effect or outcome.

10. Mitigation – A means to reduce or eliminate the effects of hazards. See *Safety Risk Control*. The terms *Control*, *Mitigation*, and *Safety Risk Control* are used synonymously.

11. Noncompliance – Conduct that is contrary to a statute, regulation, or order issued under a statute or regulation.

12. Nonconformance – Non-fulfillment of an organization's requirements, policies, and procedures, as well as requirements of safety risk controls developed by the organization.

13. Performance Assurance – The function of ensuring that product/service provider's performance meets safety objectives and that their risk controls are effective.

14. Product/Service Provider – An organization engaged in the delivery of aviation products or services.

15. Risk – See Safety Risk. The terms *Risk* and *Safety Risk* are used synonymously.

16. Safety – The state in which the risk of harm to persons or property damage is acceptable.

17. Safety Assurance – Processes within the SMS that function systematically to ensure the performance and effectiveness of safety risk controls and that the organization meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

18. Safety Culture – The shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands.

19. Safety Management System (SMS) – The formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. It includes systematic procedures, practices, and policies for the management of safety risk.

20. Safety Objective – A measurable goal or desirable outcome related to safety.

21. Safety Oversight – A function by means of which the FAA ensures effective implementation of the safety-related laws, regulations, policies, and procedures. Safety oversight also ensures the national aviation industry provides a safety level equal to or better than the acceptable level defined by the FAA.

22. Safety Performance – Realized or actual safety accomplishment relative to the organization's safety objectives.

23. Safety Policy – The documented commitment to safety of an FAA line of business or staff office, or an aviation service/product provider, organization, or certificate holder, which defines its safety objectives and the accountabilities and responsibilities of its employees with regard to safety.

24. Safety Promotion – A combination of training and communication of safety information to support the implementation and operation of an SMS in an organization.

25. Safety Risk – The composite of predicted severity and likelihood of the potential effect of a hazard.

26. Safety Risk Control – A means to reduce or eliminate the effects of hazards. The terms *Control*, *Mitigation*, and *Safety Risk Control* are used synonymously.

27. Safety Risk Management (SRM) – A process within the SMS composed of describing the system; identifying the hazards; and analyzing, assessing, and controlling risk.

28. Severity – The consequence or impact of a hazard's effect or outcome in terms of degree of loss or harm.

29. SMS Outputs – The result or product of an SMS process. In this context, the result of a process, which is intended to meet a requirement described in this order (e.g., results of safety data analyses, safety audits, and SRM results).

30. System – An integrated set of constituent elements that are combined in an operational or support environment to accomplish a defined objective. These elements include people, hardware, software, firmware, information, procedures, facilities, services, and other support facets.