U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Aviation Safety Policy

ORDER VS 8000.367A

Effective Date: 11/30/2012

SUBJ: Aviation Safety (AVS) Safety Management System Requirements

1. This order provides requirements to be met by AVS and AVS services/offices in support of the Aviation Safety, Safety Management System (AVSSMS). Compliance with this order will be achieved in accordance with the *AVSSMS Implementation Plan*. This order does not define implementation schedules. The 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 improve safety performance through requirements for AVS services/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;

c. Use the tools available within the AVS Quality Management System (QMS) to ensure standardization; and

d. Oversee aviation product and service providers' implementation of SMS to:

(1) Identify safety priorities;

(2) Reduce safety risk; and

(3) Monitor safety performance.

2. In addition, each service/office plays a role in the AVSSMS. Therefore, AVS services/offices must have processes and procedures in place to ensure proper alignment with:

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

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

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Appendix A: Definitions A-1

Chapter 1. General Information

1. Purpose of This Order. This order defines the 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 implementing SMS within AVS and AVS services/offices, as well as AVS management.

3. Where Can I 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. What this Order Cancels. FAA Order VS 8000.367, Aviation Safety (AVS) Safety Management System Requirements, dated 05/14/08.

5. Background. The FAA's mission is "To provide the safest, most efficient aerospace system in the world."

a. To support its mission, the FAA is implementing an SMS to integrate the management of safety risk into business planning, operations, and decision making in order to enhance safety for the flying public and strengthen the FAA's worldwide leadership in aviation safety. 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 is implementing an SMS which will meet the tenets of both the ICAO SSP and SMS frameworks. Consequently, AVS has 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).

b. This order refers to individuals and entities over which AVS has safety oversight responsibility as *aviation product/service providers*. Entities that provide products and services include: manufacturers, operators, maintainers, educators, providers of air traffic services, and others. In addition, *entities* may be organizations or individuals.

c. 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 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 non-conformances, provide tools for correction, and continuous improvement. While SMS provides the mechanisms for AVS to carry out its regulatory, certification, and continued operational safety management functions within a framework of risk-based decision making, 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, AVS services/offices will implement the AVSSMS on the principles of the QMS in place throughout AVS.

d. To realize benefits of SMS at the aerospace system-level, it is essential that functions within the services/offices that comprise the AVSSMS are appropriately integrated. Further, these functions must also be interrelated to SMS functions in product/service provider SMSs. There are requirements throughout this order that address this relationship. In addition, the SMS guidance available on the FAA intranet provides diagrams that illustrate the relationships within AVS and relationships between AVS and the product/service providers it oversees.

6. Scope. The AVSSMS is the formal, top-down, AVS-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. This order describes the functional requirements for the AVSSMS.

a. The requirements in this order apply to AVS and all AVS services/offices. Therefore, services/offices must meet all pertinent requirements contained in this order pursuant to implementation of the AVSSMS.

b. The AVSSMS consists of four main components: Safety Policy, Safety Risk Management (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 in regards to safety.

(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. In addition to implementation of the AVSSMS, each AVS service/office with product/service provider oversight responsibility is encouraged to establish programs to apply proposed 14 Code of Federal Regulations (CFR) part 5, *Safety Management Systems*, [1] to those organizations. For example, Flight Standards Service (AFS) would apply proposed part 5 to operators and maintenance organizations and Aircraft Certification Service (AIR) would apply proposed part 5 to manufacturers and design organizations. It is understood that in order to require certificate holders to meet proposed part 5 requirements, the FAA must conduct rulemaking. Therefore, AVS services/offices with

[1] Proposed CFR part 5, *Safety Management Systems*, was proposed in "SMS for Part 121 Operators" Notice of Proposed Rulemaking (NPRM) (75 FR 68224, October 29, 2010). It is available on the Federal Register at: http://www.gpo.gov/fdsys/pkg/FR-2010-11-05/pdf/2010-28050.pdf.

product/service provider oversight responsibility should determine if establishing a voluntary program to apply proposed part 5 is preferable to rulemaking.

d. The AVSSMS supplements existing CFRs. Together, they are the basis for:

(1) Identifying hazards in the aerospace system and making 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:

(a) Conducting design assurance when issuing certificates and approvals; and

(b) Performance assurance through continued operational safety.

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

(6) Approving, accepting, or concurring with SMSs in product/service provider organizations for which AVS has oversight responsibility and overseeing their continual compliance with SMS requirements.

e. The reader is encouraged to review Appendix A for definitions of terms used in this order.

Chapter 2. Safety Policy [2]

1. General Requirements.

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

b. The AVS Safety Policy must include:

(1) A commitment to implement and maintain the AVSSMS;

(2) A commitment to continual safety improvement in the aerospace system;

(3) A commitment to manage safety risk;

(4) An expectation that employees will report safety issues and when possible provide proposals for solutions/safety improvements;

(5) Clear guidance for acceptable behavior;

(6) Guidance for setting safety objectives;

(7) Guidance for reviewing safety objectives;

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

(9) Safety reporting requirements for employee reporting of safety hazards or issues.

c. 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.

d. The AVS Management Team must ensure that the AVS Quality Policy and the AVS Safety Policy are consistent.

[2] For more information, please refer to FAA Order VS 8000.370, *Aviation Safety (AVS) Safety Policy*.

2. Safety Planning.

a. AVS and AVS services/offices must establish and document organizational safety objectives that are measurable. [3]

b. AVS and AVS services/offices must monitor these safety objectives and accompanying metrics to ensure that the safety objectives are being met.

c. AVS and AVS services/offices must develop and maintain plans to meet national and organizational safety objectives.

d. AVS must establish a process for determining the acceptable safety risk applicable to the entire aerospace system (excluding components outside AVS responsibility) in accordance with FAA Order 8040.4A, *Safety Risk Management Policy*.

e. Within the constraints set by Chapter 2, Section 2.a. - d. (above), as well as those established in FAA Order 8040.4A, *Safety Risk Management Policy*, each AVS service/office must establish a process to determine the acceptable safety risk applicable to:

(1) Each organization for which it has oversight responsibility; and

(2) The component(s) of the aerospace system it oversees.

3. Organizational Structure and Responsibilities.

a. The AVS Management Team must have the ultimate responsibility for the implementation and maintenance of the AVSSMS.

b. The AVS Management Team must provide resources essential to implement and maintain the AVSSMS.

c. The AVS Management Team must appoint an AVSSMS Program Manager to develop and implement the AVSSMS. This focal point must also maintain and manage the AVSSMS after it is fully implemented.

d. Responsibilities for positions, duties, and authorizations to enable successful functioning of the AVSSMS must be:

(1) Defined;

(2) Documented; and

(3) Communicated throughout the organization.

[3] 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.

4. Compliance with Statutory and Regulatory Requirements. The AVSSMS must not be in conflict with statutory and regulatory requirements.

5. Operational Procedures and Controls.

a. AVS and AVS services/offices must establish procedures with measurable criteria to accomplish its Safety Policy and objectives as defined by the AVSSMS. [4]

b. AVS and AVS services/offices must establish and maintain process controls to ensure procedures are followed for operations and activities as defined by the AVSSMS.

6. Emergency Preparedness and Response.

a. AVS must establish a plan to respond to accidents and serious incidents.

b. The effectiveness of the plan must be verified at intervals, either by response to real events or exercises.

7. Documentation and Records.

a. The AVSSMS must be documented in accordance with FAA directives and AVS QMS requirements to include:

(1) Safety policies;

(2) Safety processes and procedures; and

(3) Safety objectives.

b. SMS outputs must be documented in accordance with FAA directives and AVS QMS requirements.

[4] Measures are not expected for each procedural step. However, measures and criteria should be of sufficient depth and level of detail to ascertain and track the accomplishment of objectives. Criteria and measures can be expressed in either quantitative or qualitative terms.

Chapter 3. Safety Risk Management [5]

1. General Requirements.

a. SRM must be applied in order to:

(1) Determine the need for and develop safety risk controls to be applied to:

(a) The entire aerospace system (in the case of aerospace system-level hazards);

(b) A component of the aerospace system for which AVS has oversight responsibility; [6] and

(c) A specific product/service provider organization for which AVS has oversight responsibility.

(2) Analyze potential hazards identified through Safety Assurance processes**;**

(3) Conduct independent safety risk analyses to validate the results of a product/service provider's safety risk analysis and/or its SRM process; and

(4) Initiate changes to the AVSSMS.

b. AVS and AVS services/offices must define a process for risk acceptance that is consistent with FAA Order 8040.4A, *Safety Risk Management Policy* (or latest revision).

(1) Descriptions must be established for severity levels and likelihood levels.

(2) AVS and AVS services/offices must define:

(a) Levels of acceptable and unacceptable risk in the segments of the aerospace system for which they have oversight responsibility;

(b) Levels of management that can make safety risk acceptance decisions; and

(c) Safety risk that is acceptable in the short-term while long-term safety risk control/mitigation plans are developed and implemented.

(3) The SRM process must allow AVS and AVS services/offices to take interim immediate action to mitigate existing safety risk.

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[5] In general, 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 SRM process 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. For additional information regarding SRM, please refer to FAA Order 8040.4A, *Safety Risk Management Policy* (or latest revision).

[6] In this context, a component of the aerospace system means operators (parts 121 and 135), design and manufacturers (part 21), maintenance organizations (part 145), etc.

c. Establish Interfaces. AVS services/offices must establish interfaces between their SRM functions and:

(1) Their Safety Assurance functions (described in Chapters 4 and 5 of this order);

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

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

2. SRM Process. The SRM process must be accomplished in accordance with FAA Order 8040.4A, *Safety Risk Management Policy* (or latest revision) and, at a minimum, must include the following steps:

a. System Analysis. The system analysis and description must be documented to the level necessary to identify hazards. [7]

b. Identify Hazards.

(1) Hazards must be identified within the processes or system as described in the System Analysis, developed per Chapter 3, Section 2.a. (above).

(2) Identified hazards must be:

(a) Recorded;

(b) Tracked in accordance with the minimum set of data defined in the SRM guidance available on the FAA intranet; [8] and

(c) Analyzed in accordance with requirements in Chapter 3, Section 2.c. (below).

c. Analyze Safety Risk. The safety risk analysis process must include analyses of:

(1) System state;

(2) Existing safety risk controls; and

(3) The safety risk of outcomes from the existence of a hazard, to include estimation of the:

(a) Likelihood; and

[7] While it is recognized that identification of every conceivable hazard is impractical, organizations are expected to exercise due diligence in identifying and controlling significant and reasonably foreseeable hazards related to their operations. Analyzing and describing the system involves the act of bounding the system (i.e., defining what the system actually is). The definition process is a purely subjective one. Analyzing and describing the system requires a definition of its boundary and its components.

[8] Hazard tracking is the process of tracking and managing the information regarding a hazard through the life-cycle of identification and iterations of assessment and control. For additional information regarding hazard tracking, please refer to FAA Order 8040.4A, *Safety Risk Management Policy*.

(b) Severity. [9]

d. Assess Safety Risk. Each identified hazard must be assessed for its safety risk acceptability using the organization's acceptable and unacceptable levels of safety risk, as defined per requirements listed in Chapter 3, Section 1.b.

e. Control/Mitigate Safety Risk.

(1) Safety risk controls/mitigations must be designed/developed for hazards identified with unacceptable risk. [10]

(2) Substitute risk must be evaluated in the creation of safety risk controls/mitigations.

(3) The safety risk controls/mitigations must be evaluated to ensure that risk acceptance criteria would be met if the safety risk controls/mitigations were implemented.

(4) Once safety risk controls/mitigations are implemented, they must be monitored to ensure that safety risk controls have the desired effect. [11]

[9] Severity and likelihood may be expressed in qualitative or quantitative terms. Generally, quantitative analysis is preferred.

[10] As described in FAA Order 8040.4A, *Safety Risk Management Policy*, there are cases in which hazards with significant associated safety risk may exist, but because of the constraints within which the FAA must operate, the FAA may not be able to establish controls. Such constraints include: the FAA's legal authority (which is established by statute), technological limitations, or cost-benefit requirements for regulations. Thus, the FAA may be forced to accept safety risk by default. When this is the case, the FAA must document the analysis and decision, as well as apply the controls that it is able to and establish a methodology to monitor the risk.

[11] Monitoring of safety risk controls is typically accomplished through the Safety Assurance processes described in Chapters 4 and 5 of this order.

Chapter 4. Safety Assurance Within AVS

1. General Requirements.

a. AVS services/offices must establish interfaces with the Safety Assurance functions of other AVS services/offices and AVS-level Safety Assurance functions.

b. AVS services/offices must monitor their systems to:

(1) Identify new potential hazards;

(2) Measure the effectiveness of safety risk controls;

(3) Identify changes that may introduce new hazards and affect safety risk;

(4) Assess conformity with organizational safety policies and procedures; and

(5) Assess the safety performance of AVS and enable continuous improvement.

c. AVS and AVS services/offices must allocate resources for Safety Assurance within AVS based on safety risk.

2. Safety Assurance Processes. Safety Assurance must use the following processes:

a. Information Acquisition.

(1) AVS services/offices must collect and maintain the data/information necessary to meet requirements in Chapter 4, Section 1.b. (above).

(2) AVS services/offices must make the data/information it collects available to other AVS services/offices and AVS-level functions [12] in support of the AVSSMS (unless protected by law or other agreements).

(3) At a minimum, the collection must include data/information resulting from the following:

(a) Employee Reporting System.

(1) AVS must establish and maintain an employee reporting system in which employees can report hazards, issues, concerns, occurrences, incidents, etc.

(2) AVS employees must be encouraged to use the employee reporting system without reprisal.

(b) Auditing within AVS.

[12] AVSSMS has a dual Safety Assurance focus, which consists of the AVS organization and product/service providers.

(1) AVS and AVS services/offices must conduct regular audits of their processes in accordance with the AVS QMS.

(2) Audits must be conducted with priority given to areas of highest safety risk.

(c) Third Party Audits of the AVSSMS. If applicable, AVS must use the results of third party audits in its Safety Assurance processes. [13]

b. Analysis of Data/Information. AVS and AVS services/offices must analyze the data/information (described in Chapter 4, Section 2.a.) to meet requirements in Chapter 4, Section 1.b.

c. System Assessment. AVS and AVS services/offices must perform system assessments to:

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

(2) Assess conformity with existing SMS requirement(s);

(3) Identify nonconformities with SMS requirement(s); and

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

d. Corrective Action. When nonconformities are identified, AVS and AVS services/offices must prioritize and implement corrective actions.

e. Management Reviews.

(1) The AVS Management Team must conduct regular reviews of AVS to assess the safety performance of AVS.

(2) Management reviews must include assessing the need for changes to the AVSSMS.

[13] Audits could be conducted by the General Accountability Office (GAO), Department of Transportation (DOT) Inspector General (IG), ICAO, ISO compliance auditors, etc.
[14] The SRM process must be utilized if the assessment indicates that a potential hazard has been found.

Chapter 5. AVS Safety Assurance of Product/Service Providers [15]

1. General Requirements.

a. AVS services/offices must allocate resources for product/service provider Safety Assurance with priority given to areas of highest safety risk.

b. Establish Criteria for Management of Change. AVS services/offices must establish the criteria for types of planned changes for which a product/service provider must receive approval from AVS prior to implementation in the operational system.

c. The following types of Safety Assurance must be conducted by AVS services/offices:

(1) Safety Assurance of Product/Service Provider Designs ("*Design Assurance*").

(a) AVS services/offices must use design assurance as the basis for the certification of products and program approval or acceptance.

(b) AVS services/offices must use outputs of their product/service provider organizations' SRM functions as inputs to their acceptance or approval (i.e., certification) of new and modified designs (e.g., product designs, organizational designs, new or modified operating practices) in accordance with criteria established in Chapter 5, Section 1.b. (above).

(c) AVS services/offices must confirm that product/service providers' designs:

(1) Are in conformance with established requirements; and

(2) Include appropriate safety risk controls (as determined by the product/service provider SRM process).

(2) Safety Assurance of Product/Service Provider Performance ("*Performance Assurance").*

(a) Performance assurance must be used to determine the continued operational safety of products and processes including the need for corrective action on the part of the product/service provider.

(b) AVS services/offices must use outputs from the product/service provider organizations' SMSs as inputs to their assurance of the safety management performance of those organizations.

(c) AVS services/offices must confirm that product/service providers' performance is in accordance with the design that is accepted or approved, as described in Chapter 5, Section 1.c.(1) (above).

[15] The requirements in Chapter 5 only apply to those services/offices with product/service provider oversight responsibilities.

2. Safety Assurance Processes. Safety Assurance of product/service providers' design and performance must use the following processes:

a. System Description. Safety Assurance of product/service providers' design and performance must be based upon functional descriptions or models of the product, service, or process to be assessed.

b. Information Acquisition.

(1) AVS and AVS services/offices must collect and monitor aerospace system data/information to:

(a) Assess conformity of their product/service providers with safety risk controls set by AVS, as well as those developed as a result of the product/service provider's SRM processes;

(b) Measure the effectiveness of existing AVS and product/service providers' safety risk controls;

(c) Identify changes that may introduce new hazards and affect safety risk;

(d) Identify the need for additional AVS and product/service providers' safety risk controls or changes to existing controls (which would be determined through the application of the SRM process);

(e) Assess performance of the SMSs of their product/service providers (if applicable);

(f) Assess product/service providers' compliance with regulatory requirements; and

(g) Identify potential hazards.

(2) At a minimum, the collection and monitoring of data/information must include the following:

(a) Reporting System. AVS must establish and maintain a means for stakeholders to report hazards, issues, concerns, occurrences, incidents, etc.

(b) Auditing of Product/Service Providers (Surveillance and Sampling).

(1) AVS services/offices must conduct audits of their product/service providers' products, processes, and services, as agreed to with those organizations, to:

(a) Assess conformity with safety risk controls established by AVS; and

(b) Validate outputs of the product/service providers' SMSs.

(2) Audits must be conducted with priority given to areas of highest safety risk.

(c) Investigation.

(1) AVS must establish criteria to investigate accidents and incidents.

(2) AVS must establish procedures to:

(a) Investigate accidents;

(b) Investigate incidents; and

(c) Investigate instances of suspected non-compliance with regulations.

(3) AVS services/offices must collect data/information on:

(a) Accidents; and

(b) Incidents.

c. Analysis of Data/Information. AVS and AVS services/offices must analyze the data/information described in Chapter 5, Section 2.b. (above).

d. System Assessment.

(1) AVS and AVS services/offices must assess the component(s) of the aerospace system for which they have oversight responsibility.

(2) System assessments must result in the documentation of:

(a) Conformity with existing safety risk control(s), SMS requirement(s), and regulatory requirements;

(b) Nonconformity with existing safety risk control(s), SMS requirement(s), and regulatory requirements;

(c) Potentially ineffective control(s); and

(d) Potential hazard(s) found. [16]

e. Corrective Action.

(1) If a submitted system design is not in conformance with established requirements or does not include appropriate safety risk controls, the proposal must be sent back to the product/service provider for further analysis/study with an explanation of deficiencies.

[16] The SRM process must be utilized if the assessment indicates that a potential hazard has been found. This often involves including the affected product/service providers; the product/service provider's SRM is typically employed to assess and, if necessary, mitigate the safety risk. There are times when AVS services/offices would employ their SRM process to assess the potential hazard.

3. If an AVS service/office determines that a product/service provider's performance is not in accordance with the system design that is accepted or approved (as described in Chapter 5, Section 1.c.(1)), it may require that the product/service provider take action or conduct further analysis/study.

Chapter 6. Safety Promotion

1. Safety Culture.

a. The AVS Management Team must promote the growth of a positive safety culture in AVS through:

(1) Publication to all employees of senior management's stated commitment to safety;

(2) Communication of the safety responsibilities of the organization's personnel;

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

(4) An employee reporting system that provides confidentiality and de-identification as appropriate (as described in Chapter 4, Section 2.a.(3)(a));

(5) Use of a safety information system that provides an accessible and efficient means to retrieve information; and

(6) Allocation of resources to implement and maintain the AVSSMS.

b. AVS and AVS services/offices must promote the growth of a positive safety culture within those product/service provider organizations for which they have oversight responsibility.

2. Communication and Awareness.

a. AVS and AVS services/offices must communicate SMS outputs to affected employees.

b. AVS services/offices must communicate SMS outputs to AVS and other affected AVS services/offices.

c. AVS services/offices must communicate SMS outputs to affected stakeholders.

d. AVS and AVS services/offices must ensure that affected employees and stakeholders (including their product/service provider organizations, if applicable), are aware of the short-term safety risk of hazards that may exist in the aerospace system while safety risk controls are developed and implemented (as described in Chapter 3, Section 1.b.(2)(c)).

3. Personnel Competency and Training.

a. AVS and AVS services/offices must document competency requirements for those positions identified in Chapter 2, Section 3.d.

b. AVS and AVS services/offices must provide initial, on-the-job, and recurrent training necessary to ensure that those individuals identified Chapter 2, Section 3.d. are trained and competent to perform their duties relevant to the operation and performance of the SMS.

4. Safety Knowledge Management. The AVSSMS must include a process to capture knowledge of safety issues and incorporate it into the aerospace system to support well-informed decision making, keep safety issues from repeating, and avoid similar or related safety issues.

5. Product/Service Provider SMS Requirements.

a. AVS services/offices with product/service provider oversight responsibility are encouraged to establish programs to apply proposed 14 CFR part 5, *Safety Management Systems*, to those organizations. [17]

b. AVS services/offices that apply proposed 14 CFR part 5, *Safety Management Systems*, to product/service provider organizations it oversees must establish processes and procedures for acceptance or approval of product/service provider SMSs.

[17] Proposed CFR part 5, *Safety Management Systems*, was proposed in "SMS for Part 121 Operators" Notice of Proposed Rulemaking (NPRM) (75 FR 68224, October 29, 2010). It is available on the Federal Register at: http://www.gpo.gov/fdsys/pkg/FR-2010-11-05/pdf/2010-28050.pdf. This requirement applies to those services/offices that have product service provider oversight responsibility. For example, Flight Standards Service (AFS) would apply proposed part 5 to operators and maintenance organizations and Aircraft Certification Service (AIR) would apply proposed part 5 to manufacturers and design organizations. It is understood that in order to require certificate holders to meet proposed part 5 requirements, the FAA must conduct rulemaking. Therefore, AVS services/offices with product/service provider oversight responsibility should determine if establishing a voluntary program to apply proposed part 5 is preferable to rulemaking.

Chapter 7. Administrative Information

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

2. Related Publications. This order has been developed and updated to be consistent with the following documents:

a. 14 CFR part 5, *Safety Management Systems*, as proposed in "SMS for Part 121 Operators" Notice of Proposed Rulemaking (NPRM) (75 FR 68224, October 29, 2010)

b. FAA Order 8000.369, *Safety Management System Guidance*, September 30, 2008

c. FAA Order 8040.4A, *Safety Risk Management Policy*, April 30, 2012

d. FAA Order VS 8000.370, *Aviation Safety (AVS) Safety Policy*, September 30, 2009

e. FAA Order VS 1300.2B, *AVS Quality Management System*, June 21, 2010

f. *Joint Planning and Development Office (JPDO), Safety Management System Standard v1.4*, July 30, 2008

g. *International Civil Aviation Organization Annexes 1, 6, 8, 11, 13, and 14*

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

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

j. American National Standard, Quality Management Systems – *Requirements* (Document Number: ANSI/ISO/ASQ 9001-2008)

3. Authority to Change This Order. The Associate Administrator for Aviation Safety (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. Control – See Safety Risk Control.

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

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

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

8. Interoperability – The ability for each SMS to be part of the system of systems through interdependent processes and/or components with shared principles, information, and governance.

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 the risk of a hazard. See Safety Risk Control.

11. Nonconformity – Non-fulfillment of a requirement. This includes but is not limited to non-compliance with Federal regulations. It also includes an organization's requirements, policies, and procedures as well as requirements of safety risk controls developed by the organization.

12. Product/service provider – An organization engaged in the delivery of aviation products or services.

13. Risk – See Safety Risk. The terms Risk and Safety Risk are used synonymously.

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

15. 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.

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

16.17. 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.

17.18. Safety objective – A measurable goal or desirable outcome related to safety.

18.19. Safety performance – Realized or actual safety accomplishment relative to the organization's safety objectives.

19.20. Safety Policy – The organization's documented commitment to safety, which defines its safety objectives and the accountabilities and responsibilities of its employees in regards to safety.

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

21.22. Safety requirement – A safety condition or capability that must be met or passed by a system to satisfy a contract, standard, specification or other formally imposed document or need.

22.23. Safety risk – The composite of predicted severity and likelihood of the potential effect of a hazard.

a. Initial – The predicted severity and likelihood of a hazard's effects or outcomes when it is first identified and assessed; includes the effects of preexisting risk controls in the current environment.

b. Current – The predicted severity and likelihood at the current time.

c. Residual – The remaining predicted severity and likelihood that exists after all selected risk control techniques have been implemented.

23.24. Safety Risk Control – A means to reduce or eliminate the effects of hazards.

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

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

26.27. Substitute risk – Risk unintentionally created as a consequence of safety risk control(s).

27.28. 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.

28.29. System state – An expression of the various conditions, characterized by quantities or qualities, in which a system can exist.