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

**ORDER
8000.369A**

Effective Date:
05/08/13

SUBJ: Safety Management System

1. This order provides information for Federal Aviation Administration (FAA) organizations regarding implementation of Safety Management System (SMS) or State Safety Program (SSP) frameworks, as described by the International Civil Aviation Organization (ICAO), to form the overall FAA SMS. The FAA SMS expects to meet most of the requirements of ICAO's SSP framework that are within the purview of the FAA. Specifically, this order:

   a. Furthers safety management by moving towards a more process oriented system safety approach with an emphasis on risk management and safety assurance.

   b. Sets forth basic management principles to guide the FAA in safety management and safety oversight activities.

   c. Requires adopting a common approach to implementing an integrated SMS, including safety culture and other attributes as applicable.

   d. Establishes the FAA SMS Executive Council and FAA SMS Committee and describes their roles and responsibilities.

   e. Requires FAA organizations to develop implementation or continuous improvement plans for SMS.

2. This order applies to the Air Traffic Organization (ATO), Aviation Safety Organization (AVS), Office of Airports (ARP), Office of Commercial Space Transportation (AST), the Office of the Next Generation Air Transportation System (ANG), and the Hazardous Materials Safety Program Office in the Office of Security and Hazardous Materials Safety (ASH). This order is written to allow for application to other FAA organizations as deemed appropriate by the Administrator.

Michael P. Huerta
Administrator

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Chapter 1. General Information

1. Purpose of This Order. This order:

    a. Governs the Federal Aviation Administration (FAA) Line of Business (LOB) and Office implementations of Safety Management Systems (SMS), which meet the International Civil Aviation Organization (ICAO) State Safety Program (SSP) framework, into the overall FAA SMS.

    b. Explains the SMS principles and requirements.

    c. Establishes the FAA SMS Executive Council and FAA SMS Committee.

    d. Standardizes terminology for SMS.

    e. Requires FAA organizations to develop implementation or continuous improvement plans for SMS.

    f. Requires FAA organizations to establish guidance for their own SMS activities and their industry segment on implementing SMS.

2. Audience. This order applies to the Air Traffic Organization (ATO), Aviation Safety Organization (AVS), Office of Airports (ARP), Office of Commercial Space Transportation (AST), the Office of the Next Generation Air Transportation System (ANG), and the Hazardous Materials Safety Program Office in the Office of Security and Hazardous Materials Safety (ASH). This order is written to allow for application to other FAA organizations as later deemed appropriate.

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.

4. Cancellation. This order replaces FAA Order 8000.369, *Safety Management System Guidance*, dated September 30, 2008.

Chapter 2. Background

1. **Statutory Basis.**

   a. The FAA's authority to issue this order and establish SMS and SSP is derived from its authority and policy provisions set forth in Title 49 U.S.C. Chapter 401 and 447.

   b. The FAA has broad authority to regulate under 49 U.S.C. 44701. In particular, section 44701(a) grants the FAA authority to prescribe regulations and minimum standards in the interest of safety. Subsection (c) grants the Administrator the authority to regulate "in a way that best tends to reduce or eliminate the possibility or recurrence of accidents in air transportation."

   c. Title 49 U.S.C. Chapter 447 of subpart III, part A, subtitle VII, prescribes the authority and powers of the FAA concerning safety regulations, including the issuance of airman certificates, design organization certificates, type certificates, production certificates, airworthiness certificates, air carrier operating certificates, airport operating certificates, air agency certificates, and air navigation facility certificates. This chapter also prescribes the authority of the FAA to examine, investigate, and rate air agencies and air navigation facilities. In the case of air carriers, the statute is explicit on their responsibility for safety. Section 44702 of 49 U.S.C. states that the FAA Administrator, when issuing a certificate, shall consider the duty of an air carrier to provide service with the highest possible degree of safety in the public interest.

   d. Title 49 U.S.C. Chapter 401 of subpart I, part A, Section 40101(d), states that the Administrator shall consider the following as being in the public interest:

   (1) Assigning, maintaining, and enhancing safety and security as the highest priorities in air commerce.

   (2) Regulating air commerce in a way that best promotes safety and fulfills national defense requirements.

   (3) Encouraging and developing civil aeronautics, including new technology.

   (4) Controlling the use of the navigable airspace and regulating civil and military operations in that airspace in the interest of the safety and efficiency of both of those operations.

   (5) Consolidating research and development for air navigation facilities and the installation and operation of those facilities.

   (6) Developing and operating a common system of air traffic control and navigation for military and civil aircraft.

   e. This order is consistent with established FAA policy contained in FAA Order 1000.1A, *Policy Statement of the Federal Aviation Administration*, that states, in part, that "It is the statutory responsibility, and primary mission, of the Federal Aviation Administration to promote safety and to provide for the safe use of airspace."

2.   Basis for SMS Implementation and Responsibilities.

   a.   To support its mission to provide the safest, most efficient aerospace system in the world, the FAA is implementing an SMS to systematically integrate the management of safety risk into business planning, operations, and decisionmaking. The FAA SMS leverages existing effective FAA practices for safety management.

   b.   The SMS enables the FAA to enhance safety, by allocating resources efficiently and effectively based on data-supported analysis and assessment, while responding to:

   (1) Changing industry business models and growth;

   (2) The aerospace system's increasing complexity; and

   (3) The current and future challenging budget environment.

   c.   This order comprises part of the FAA's fulfillment of the ICAO safety management standards and current FAA capabilities. ICAO is a United Nations affiliated organization that is dedicated to increasing the safety and security of international civil aviation. The organization addresses fundamental issues ranging from air navigation and capacity to emerging environmental concerns such as engine noise and emissions. As a member of ICAO, the United States has committed to comply with ICAO safety standards.

   d.   ICAO has established frameworks for SSP, applicable to Member States, and SMS, applicable to product/service provider organizations. Because the FAA is comprised of regulatory and product/service provider organizations, the FAA is implementing an SMS which will meet most of the tenets of both the ICAO SSP and SMS frameworks. Meeting the tenets of both the SSP and the SMS frameworks within the FAA's purview ensures interoperability among SMSs in FAA organizations.

   e.   The SMS helps the FAA to adapt to changes and continuously improve safety in the aerospace system. This is done through an integrated, data-supported approach based on risk management in a system safety framework. The SMS allows the FAA to address safety concerns through a system of risk controls integrated across all FAA functions, with an efficient application of resources. This approach permits the leveraging of resources through risk management and will focus on safety oversight of systems and processes.

   f.   With SMS, direct observation and surveillance is still required in the FAA oversight activities, but they are used differently than in the past. Rather than serving primarily as a quality control function, the results of surveillance will be used as objective evidence with which to evaluate the effectiveness of service providers' safety management capability and performance.

   g.   This document refers to entities over which FAA has safety oversight responsibility as aviation product/service providers. Entities that provide products and services include airports, manufacturers, operators, maintainers, educators, providers of air traffic services, 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 FAA. The FAA is responsible for establishing the safety regulations and standards that provide requirements for aviation product/service providers' systems. The FAA's responsibilities include: defining the requirements for those systems; applying risk-based lifecycle safety oversight; and verifying that the safety systems of the aviation product/service provider meet applicable requirements and that their processes, products, and services continue to do so during the operational

phases of their lifecycle. These oversight responsibilities are accomplished at multiple levels as discussed in Chapter 4.

h. Regulations serve as risk controls. FAA organizations with product/service provider oversight responsibility should apply the concepts of Safety Risk Management (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. Compliance with the regulations would thus move beyond viewing them only as administrative requirements and into an environment where compliance entails effective control of clearly identified hazards. This enhances the value of regulations as effective instruments of safety management. Regulations and subsequent oversight activities must be part of a systematic strategy of risk control.

i. With SMS, the FAA is better able to allocate resources and conduct safety oversight using safety management principles. The FAA establishes safety requirements for, and promotes SMS implementation in, product/service provider organizations, as appropriate. The FAA verifies compliance with regulations using a variety of means such as audits, evaluations, and inspections and confirms implementation and effectiveness of the aviation product/service provider's safety systems. In this way, FAA personnel[1] are used more efficiently, and there is a higher level of confidence that an aviation product/service provider will meet safety standards, whether the FAA is present or not.

3. Safety and Quality. There are organizations in the FAA that have implemented Quality Management Systems (QMS) that meet the International Organization for Standardization (ISO) 9001 Standard. While not all FAA organizations maintain a formal QMS, quality management principles are used. Safety management and quality management are complementary and must work together to achieve the overall safety objectives of the organization. A primary objective of the FAA 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 product/operational results are achieved (quality management). SMS requires that the design and implementation of organizational processes and procedures identify safety hazards and control and/or mitigate safety risk in aviation operations. QMS provides a structured approach for assuring that these processes and procedures function as intended, correct non-conformances when they do not, and continually improve their effectiveness. While SMS provides the mechanisms for the FAA to carry out its regulatory, certification, and continued operational safety management functions within a framework of risk-based decisionmaking, a QMS ensures that this framework is operating in a structured, repeatable fashion and is able to meet its intended objectives. When those objectives are not met, QMS provides the means to improve.

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[1] The term personnel includes FAA employees and designees, or others who might act on behalf of the FAA Administrator.

Chapter 3. SMS Components

1.   Overview. The four main components of an SMS are: (1) Safety Policy, (2) Safety Risk Management, (3) Safety Assurance, and (4) Safety Promotion. They provide a means of defining SMS within the FAA, and a systematic approach to defining and achieving the desired safety performance. The components are described further below.

2.   Safety Policy. The safety policy:

    a.   Describes what the organization is trying to achieve through its SMS.

    b.   Outlines the requirements, methods, and processes the organization will use to achieve the desired safety outcomes.

    c.   Establishes senior management's commitment and expectation that the organization will continually improve safety. The safety policy further establishes and defines senior management's expectation of high safety performance.

    d.   Reflects management's commitment to:

        (1) Implement procedures and processes for establishing and meeting measurable and attainable safety objectives;

        (2) Provide resources to implement and operate the SMS; and

        (3) Support promotion of a positive safety culture.

    e.   Establishes roles, responsibilities, and accountabilities regarding the organization's safety performance. For organizations with oversight responsibilities, the policy establishes basic guidelines for compliance and enforcement personnel.

    f.   Outlines an emergency response plan that provides for the safe transition between normal and emergency operations where applicable.

3.   Safety Risk Management (SRM).[2] SRM provides for initial and continuing identification of hazards and the analysis and assessment of safety risk. Appropriate safety risk controls are developed and employed operationally. Validation of system performance and effectiveness of implemented risk controls and risk management strategies occurs under the safety assurance component, discussed in the following section. An organization's SRM must follow the requirements set forth in FAA Order 8040.4A, *Safety Risk Management Policy*, and accomplish the following:

    a.   System Analysis. Establish an understanding of critical system design and performance factors, processes, and activities to the level necessary to identify hazards.

    b.   Identify hazards. Identify and document hazards or those things that could go wrong in sufficient detail to determine the associated safety risk (within the system description).[3]

    c.   Analyze safety risk. Determine and analyze the severity and likelihood of potential events associated with identified hazards.

    d.   Assess safety risk. Compare the safety risk of each identified hazard to established safety performance targets and/or rank hazards based on risk. The objective is to determine the acceptability of the safety risk.

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[2] For additional information regarding SRM, please refer to FAA Order 8040.4A, *Safety Risk Management Policy*.
[3] The security of information in safety critical systems should also be considered in hazard identification.

e. Control safety risk. Design and implement safety risk control(s) for hazards with associated unacceptable risk.

4. Safety Assurance. Safety assurance processes ensure that safety risk controls achieve their intended objectives and are used to assess operations to identify new hazards.[4] Safety assurance includes continuously monitoring systems of interest and assessing the need for new risk controls, modification of ineffective risk controls, or elimination of those no longer needed due to changes in the operational environment. These monitoring activities apply whether the operations are accomplished internally or outsourced (e.g., contracted activities or designees). Safety assurance processes include:

a. Data/information acquisition. Collect, manage, and monitor operational data to assess the segment of the aerospace system for which the organization is responsible, assess the performance of the SMS, identify new hazards, and measure the effectiveness of, and conformity to, safety risk controls.

(1) Reporting system(s). Establish and maintain a safety reporting system in which stakeholders (e.g., employees, product/service providers, and aerospace system users) can report safety issues or concerns. Data obtained from this system are monitored to identify emerging hazards and to assess performance of risk controls in the operational systems.[5]

(2) Investigation. Collect data and investigate incidents and accidents to identify new hazards or ineffective safety risk controls.[6]

(3) Monitoring, evaluations, and audits. Monitor, evaluate, or audit standards, systems, programs, and processes on a routine basis to determine the performance and effectiveness of safety risk controls both within the FAA and in aviation product/service provider organizations for which the FAA organization has oversight responsibility. Also, conduct regularly scheduled evaluations of the SMS to determine if the SMS as a whole conforms to its requirements.

b. Data/information analysis. Analyze data to assess safety performance, identify new hazards, and measure the effectiveness of safety risk controls.

c. System assessment. Conduct assessments of the effectiveness of safety risk controls and the overall performance of the SMS.

d. Corrective action. Prioritize and implement corrective actions to mitigate or eliminate problems identified during system assessments.

e. Management reviews. Conduct regular reviews of SMS effectiveness and assess the need for changes to the SMS.

5. Safety Promotion. 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 includes actions taken to create an organizational environment where safety objectives can be achieved in fulfillment of its mission.

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[4] SRM is applied when new hazards are identified through safety assurance processes.

[5] FAA organizations must ensure the security of voluntarily submitted data as required by Title 49 U.S.C. 40123 and 44735.

[6] The role of accident investigation is primarily a function of the National Transportation Safety Board (NTSB); however, FAA offices need to consider their role in this function as well.

   a.   Personnel competencies. Ensure that the workforce has the necessary competencies to perform their duties relevant to the operation and performance of the SMS.

   b.   Safety culture. The key objective in safety promotion is a positive safety culture throughout the organization, which is characterized by an adequate knowledge base, personnel competency, communications, training, informed decisionmaking, and information sharing in which lessons learned are developed and shared. All levels of management must actively promote and provide leadership to foster a positive safety culture. A safety culture is the shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands. In the desired safety culture, people acknowledge their accountability and act on their individual responsibility for safety. They trust, use, and rely on the organization's processes for managing safety. The environment is characterized by good communication and personnel continue to learn and develop through training and coaching. The ways in which an organization works to improve its safety culture are best determined by the organization's management. However, according to the Safety Culture – A Significant Driver Affecting Safety in Transportation developed by the Department of Transportation (DOT) Safety Council, the following are the most critical elements of a strong safety culture:

   (1) Leadership is clearly committed to safety.

   (2) There is open and effective communication across the organization.

   (3) Employees feel personally responsible for safety.

   (4) The organization practices continuous learning.

   (5) There is a safety-conscious work environment.

   (6) Reporting systems are clearly defined and non-punitive.

   (7) Decisions demonstrate that safety is prioritized over competing demands.

   (8) Mutual trust is fostered between employees and the organization.

   (9) The organization is fair and consistent in responding to safety concerns; and

   (10)   Training and resources are available to support safety.

Chapter 4. System Levels and Roles and Relationships within the Levels.

1. **System Levels.** In determining the nature of the FAA relationship to the aerospace system and its components, the FAA considers three basic levels of the system. These levels should not be viewed rigidly, but rather as a continuum intended to describe the system for purposes of determining how the SMS interacts with and manages safety in the system in different ways.

   a. **Aerospace System Level.**

   (1) At the highest, collective level of the aerospace system, the FAA has responsibility for safety management. At this level, the FAA tracks hazards and develops a comprehensive view of trends, measuring high-level system design and performance. SRM and safety assurance activities include analyzing FAA regulations, policies, and standards to determine the effectiveness of these key risk management and risk control tools. The FAA may analyze the overall system as well as major segments such as the:

   (a) Aerospace system, including the airport and air traffic management infrastructure system; and

   (b) Commercial aviation, including air transport aircraft and engine manufacturers, air carriers, and maintenance organizations; and

   (c) General aviation, including aircraft and engine manufacturers, operators, and maintenance organizations.

   b. **Organizational Level.**

   (1) In the middle level of the aerospace system, aviation product/service providers operate as organizations. These are primarily certificate holding corporate entities such as design or production approval holders, air carriers, maintenance organizations, airport users and operators, and the ATO, even though the ATO does not hold a certificate.

   (2) FAA interactions with the aviation product/service providers at this level are managed through certification and surveillance of technical personnel and, importantly, through interfaces at the organizational level with the product/service providers. The nature of the FAA safety oversight may vary depending on the size, scope, and sophistication of the organization's SRM processes and the entity's history of compliance.

   (3) At this level, aviation product/service providers are more likely to implement an SMS. If the aviation product/service provider is required to implement an SMS, the FAA's role is to ensure the SMS is comprehensive and functioning properly to enable the aviation product/service provider to appropriately manage its safety risk. The FAA provides safety assurance through its oversight/surveillance activities which serve as an additional level of protection to the aviation product/service provider's safety assurance. The FAA field offices use design and performance assurance to verify the effectiveness of the aviation product/service provider's SMS. FAA oversight personnel conduct inspections, audits, and evaluations to provide objective evidence to assess product/service provider process and product design adequacy, the continued operational safety of its product or service, and the performance of its SMS.

   (4) As SMS matures in the air transportation industry, the FAA SMS will increasingly be able to leverage the outputs of product/service providers' SRM and safety assurance functions. Safety oversight increasingly will evolve from primarily checking for basic regulatory compliance to more in-depth analyses of the performance of the SMS, process design, and organizational safety attributes.

However, traditional oversight methods designed to confirm product/service providers' compliance with regulations (e.g., inspections) will continue to be part of the FAA's essential oversight role in an SMS environment.

(5) The FAA SMS and the aviation product/service provider's SMS share objectives and perhaps even tools and activities, but the responsibilities of the aviation product/service provider and the aviation authority (safety oversight) remain distinct. The aviation product/service providers have the legal and functional primary responsibility for safety management in their activities.

c. Individual Level.

(1) The most basic level of the air transportation industry comprises the individual participants and aircraft that are certificated, authorized, or otherwise directly controlled through the FAA safety oversight process.

(2) In many cases, such as general aviation, these individuals' primary interface with FAA is through such FAA functions as certification, surveillance, or safety promotion. Such individuals are responsible for their primary SRM, although it may be informal and minimally documented, if at all. As individual operators, they do not participate in a comprehensive SMS unless it is through an organization in the aerospace system's middle level. The FAA role is primarily one of safety oversight of performance and safety promotion rather than design and implementation of systems.

2. Roles and Relationships within the Levels. Roles and relationships will vary depending on whether the SMS is dealing with: the aerospace system; organizational product and service providers; or individuals who independently provide aviation services or operate in the aerospace system.

a. FAA Safety Oversight. The FAA implements safety management through safety oversight of aviation product/service providers, whether they are single-person operations or large organizations. The FAA conducts analyses of the aerospace system as a whole and promulgates regulations, standards, orders, and policies. These are the FAA's primary safety oversight tools for managing safety risk in the aerospace system. The FAA also carries out safety oversight activities of certification and surveillance of aviation product/service providers, both individuals and organizations, to verify their compliance with regulations, standards, and policies, and ensure they fulfill their direct safety management responsibilities.

b. FAA Activities. Under the SMS, the FAA will conduct its activities using data-supported risk management and system safety principles to allocate FAA resources for safety oversight of the aerospace system and its components. FAA SRM and safety assurance include processing and analyzing internally and externally developed data, identifying hazards and analyzing risk directly related to FAA safety oversight processes and actions, and internally and externally conducting audits of SMS activities.

c. FAA SRM.[7] FAA conducts SRM throughout the levels of the aerospace system for the purpose of managing safety at the highest level. Here, the FAA implements risk management strategies of regulations, standards, and policy. At no point is the FAA, in an oversight capacity, responsible for primary safety assurance or for performing SRM for an individual or organizational aviation product/service provider. However, the FAA, in an oversight capacity, uses its safety assurance processes within SMS to oversee product/service providers' application of SRM. Only when an FAA organization is performing in the capacity as an aviation product/service provider, such

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[7] For additional information regarding SRM, please refer to FAA Order 8040.4A, *Safety Risk Management Policy*.

as the ATO, is it responsible for primary safety assurance and SRM. FAA performs safety assurance activities to assure the safety management capability and performance of product/service providers' systems. Under certain circumstances, such as federal financial participation in airport development projects, the FAA will coordinate SRM activities with airports to ensure that both parties' SRM responsibilities are completed in a complementary manner.

d. Product/Service Providers. 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. Depending on the nature of the aviation product/service provider, the provider may manage safety by means of an SMS. The SMS constitutes a systematic method through which the aviation product/service provider directly manages the safety risk of its operation.

Chapter 5. Application and Execution

1.   Integration of the SMS. SMS provides a common approach for conducting safety oversight at the FAA level. It also increases efficiency and eliminates duplication of efforts within the FAA. Although some FAA organizational elements have more direct involvement in safety oversight than others, all must understand and operate in a manner consistent with the principles and requirements in this order.

a.   Basic Requirement and Purpose.

(1) The FAA SMS will help integrate processes across the FAA to ensure safety risk is managed in all areas of the aerospace system within the FAA's purview, including:

(a) Design of aircraft and components.

(b) Manufacture of aircraft and components.

(c) Operation of aircraft.

(d) Maintenance of aircraft and components.

(e) Management of air traffic.

(f) Planning and design of airport infrastructure.

(g) Airport construction and operational procedures.

(h) Carriage of hazardous materials cargo.

(i) Testing safety-sensitive personnel to ensure they are not impaired by drugs or alcohol.

(j) Training and qualification of personnel.

(k) Development and maintenance of the aerospace system infrastructure.

(l) Promulgation of standards through regulations and guidance materials.

(2) Integration must provide for analysis of the entire aerospace system, such as commercial aviation, general aviation, any given operator, manufacturer, or individual certificate holder. Regulations, being the principal high-level tool for risk management, are based on comprehensive analysis of the entire aerospace system and the associated risk.

(3) Throughout the FAA, there must be:

(a) A common definition and understanding of hazards and risk.

(b) A consistent process for analyzing and assessing risk associated with a hazard.

(c) Common risk management techniques.

(d) Consistent safety assurance processes.

(e) A common approach to establishing safety performance targets and acceptable levels of risk.

(f) A consistent auditing process to ensure that SMS requirements are being met across the agency.

b.   Methodology.

(1) Integration is achieved through unified goals, strategies, and outcomes. The goals of each FAA organization must support the goals of the FAA SMS as a whole. Strategies to achieve those goals must address risk management in a coordinated and consistent fashion; the common desired outcome of managing risk to an acceptable level must remain the focus for all FAA organizational elements and individuals.

(2) Integration is accomplished by:

(a) Using processes that allow for the identification of aerospace system level hazards.

(b) Continuously measuring the safety performance to ensure that safety of the aerospace system is being maintained or enhanced.

(c) Establishing a strong and continuously improving safety culture.

(d) Identifying the knowledge, skills, and abilities needed by our personnel to support the SMS.

(e) Developing and providing the training at all levels needed to understand and implement the doctrine contained in this order.

(f) Maintaining an effective communication process at all levels and between levels. The FAA's goals, strategies, and desired outcomes must be understood at all levels of the FAA. All FAA personnel, from headquarters to the field levels, administrative to technical, are integral to the continued success of FAA safety oversight responsibilities.

(g) Ensuring there is a functioning process for obtaining the maximum benefit from lessons learned as they relate to the operation of the SMS.

c. Information Sharing.

(1) Essential to the success of the SMS is a support system for information collection, analysis, and sharing. FAA organizations must identify and communicate common or related hazards, as well as ideas for managing the associated risk to acceptable levels. The FAA SMS must have at the aerospace system level a common hazard tracking system, accessible to all FAA personnel. FAA organizations must identify common elements of safety oversight standards, procedures, and analysis and avoid duplication. The FAA must avoid overlapping or redundant data collection or inspection processes to minimize the adverse impact on aviation product/service providers and to optimize the use of FAA resources.

(2) A key aspect of this information sharing is to continue integrating FAA information technology systems so that data and information flows vertically and horizontally, enabling headquarters-level policymakers, decisionmakers, regional offices, and field offices of the various services/offices to adopt a uniform approach based on all available information.

(3) Decisionmaking processes must consider the potential impact on all other FAA organizations. The SMS architecture must be clearly defined and it must identify integration points within and between our organizational elements and others. The FAA must ensure its processes have built in the requirement to consider the need to share information or seek participation.

2. Implementation.

    a. FAA SMS Executive Council.

        (1) Responsibilities. The FAA SMS Executive Council is responsible for setting the strategic direction for SMS implementation across the FAA. It provides executive-level guidance and conflict resolution for FAA SMS-related issues. It also approves SMS guidance developed by the FAA SMS Committee. The FAA SMS Committee keeps the Council apprised of SMS activities across the FAA. The Council resolves any issues that the FAA SMS Committee raises, which may include disagreements related to SRM.

        (2) Composition. The FAA SMS Executive Council is comprised of senior-level management personnel including the Assistant Administrators of ANG and ASH, Associate Administrators of ARP, AST, and AVS, and the ATO Chief Operating Officer.

    b. FAA SMS Committee. This committee provides assistance to FAA organizations for SMS implementation and planning. It meets at regular intervals and at the discretion of the committee chair person to exchange SMS information.

        (1) Responsibilities. The FAA SMS Committee provides advice and guidance to the responsible program offices to help them fulfill their authority and responsibility to incorporate the SMS. It serves as a forum for discussion of safety policy, SRM, safety assurance, and safety promotion across all member organizations. The Committee resolves disagreements between FAA organizations regarding safety management, including disagreements related to SRM, and escalates disagreements to the FAA SMS Executive Council that it cannot resolve at the Committee-level. The Committee provides regular status reports to the FAA SMS Executive Council.

        (2) Composition. The SMS Committee is comprised of safety professionals from each organization implementing SMS (ATO, AVS, ARP, AST, ANG, and ASH) and other organizations as necessary. The Associate Administrator for Aviation Safety designates an individual to chair the committee. The chairperson is responsible for providing written notice of all meetings to committee members and, in coordination with the executive secretary, keeping minutes of the meetings. The ATO provides the position of executive secretary of the committee.

        (3) Assignments. The SMS Committee may form ad hoc working groups to address specific issues related to implementing SMS throughout the FAA. Composition of those working groups will consist of member representatives as required from across the FAA. Working groups will be disbanded upon completion of their task.

        (4) Funding. Resources for support staff and working group activities are provided as determined by the Associate Administrator for Aviation Safety. Unless otherwise stated, each member's organization is responsible for his/her own costs associated with committee membership.

    c. Documentation and Implementation Plans.

        (1) Each organization listed in the audience section of this order (Chapter 1, Section 2) will develop and document an SMS implementation plan that is consistent with this order. Each plan must be coordinated with other plans throughout the development process and must align with the FAA SMS Implementation Plan. Each plan must also demonstrate how the SMS will incorporate or otherwise account for existing safety programs, related orders, and advisory material. If an organization has implemented an SMS that meets all of its requirements, the organization should

develop and maintain a plan for continuous improvement of its SMS. Implementations plans should consider the following:

(a) Program schedule.

(b) Change management, including leadership actions describing the transformation of the organization to enable operation of the SMS.

(c) Clearly defined responsibility and authority for implementation and integration of the SMS into the organization's business functions.

(d) Overall goals, strategies, and objectives for managing safety.

(e) Identification of internal and external stakeholders.

(f) Resources to fully implement the SMS including the four components of the SMS and provisions for SMS audits at the FAA level, as well as within FAA component organizations.

(g) Establishment of an acceptable level of risk in the system of interest.

(h) Acquisition and analysis of data to make risk-based SRM decisions.

(i) Identification of critical process steps and development of internal controls for those critical process steps.

(j) Development of a means to measure performance of the SMS including establishing performance measures and metrics and adapting the SMS as necessary.

(k) Well-defined internal and external FAA interfaces to ensure proper coordination, communications, and data and information flow horizontally and vertically.

(l) Development of SMS guidance for the product/service provider that is overseen.

(m) A means to measure and track SMS implementation progress.

(2) Each organization listed in the audience section of this order (Chapter 1, Section 2) will document its SMS.

Chapter 6. Administrative Information

1. Distribution. This order is distributed to all offices in Washington Headquarters, regions, and centers, with distribution to all field offices and facilities.

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

a. Department of Transportation (DOT), *Safety Management Systems Guidance Document*

b. *Safety Culture – A Significant Driver Affecting Safety in Transportation* (DOT Safety Council Research Paper)

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

d. FAA Order VS 8000.367A, *Aviation Safety (AVS) Safety Management System Requirements*

e. FAA Order 1100.161, *Air Traffic Safety Oversight*

f. FAA Order JO 1000.37A, *Air Traffic Organization Safety Management System*

g. FAA Order 5200.11, *FAA Airports (ARP) Safety Management System*

h. FAA Order NG 1000.44, *Assistant Administrator for NextGen Safety Management System*

i. *Air Traffic Organization, Safety Management System Manual*

j. *Safety Risk Management Guidance for System Acquisitions (SRMSGA)*

k. AC 431.35-1, *Expected Casualty Calculations for Commercial Space Launch and Reentry Missions*

l. *Safety Approval Guide for Applicants*

m. *FAA Office of Commercial Space Transportation Safety Management System (SMS) Manual*

n. 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)

o. *Joint Planning and Development Office (JPDO), Safety Management System Standard v1.4*

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

q. *ICAO Safety Management Manual* (Document 9859)

3. Authority to Change This Order. The FAA Administrator has authority to issue changes and revisions to this order.

Appendix A: Definitions

As used in this document, the following words or phrases are defined.

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. Aircraft Accident - An occurrence associated with the operation of an aircraft that 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.

4. 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.

5. Control – See *Safety Risk Control*.

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

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

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

9. Interoperability – The ability for each organization's SMS to be part of a larger SMS framework through interdependent processes and/or components with shared principles, information, and governance.

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

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

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

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

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

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

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

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

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

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

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

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

25. State Safety Program (SSP) – An integrated set of regulations and activities established by a State aimed at improving safety.

26. 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.