U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

National Policy

ORDER 5200.11A

Effective Date: 7/20/2021

SUBJ: FAA Airports (ARP) Safety Management System

A Safety Management System (SMS) provides a consistent and formalized means of assessing safety risk. It does this through an integrated Safety Policy, a functioning Safety Risk Management (SRM) approach, a Safety Assurance model that identifies performance targets and facilitates continuous improvement, and a program of Safety Promotion, including clear communications.

The principles of an SMS are important to all safety-focused organizations, not only those regulated by the Federal Aviation Administration (FAA) (like certificated airports). SMS helps ARP identify and address safety issues before they become hazards or accidents (or other undesirable outcomes), thus reducing safety risk in the National Airspace System (NAS). FAA Order 8000.369, *Safety Management System*, commits the FAA to applying SMS throughout the FAA. By fully implementing SMS principles, the FAA maintains its position as a world leader in safety management.

This Order provides the basis for sustaining SMS within ARP. It describes the roles and responsibilities of ARP management and staff as well as other lines of business (LOBs) that will contribute to the ARP SMS. The Associate Administrator for Airports has overall responsibility for SMS within ARP. The Office of Airport Safety and Standards (AAS) is responsible for executing ARP SMS policy, and every ARP employee is responsible for putting it into practice.

ARP has prepared guidance documents to supplement this Order:

- a. SMS Desk Reference
- b. Standard Operating Procedure for SRM Under the FAA Office of Airports SMS

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Chapter 1. General Information

1-1. Purpose of This Order.

This Order defines SMS requirements for the FAA's Airports (ARP) line of business. It identifies the responsibilities and authority of all offices within ARP for integrating the SMS into our programs. It also explains the roles other lines of business (LOBs) play in the ARP SMS.

1-2. Audience.

This Order applies to all ARP personnel. This Order may have relevance to applicable offices in the FAA Air Traffic Organization (ATO), Aviation Safety (AVS), and the Office of Commercial Space Transportation (AST) as well as other FAA offices as needed.

1-3. Availability.

You can find this Order on the FAA Employees website at <u>https://employees.faa.gov/tools_resources/orders_notices/</u>.

1-4. Effective Date.

This Order and any potential changes are effective on signature.

1-5. Cancellation.

This Order cancels Order 5200.11, FAA Airports (ARP) Safety Management System, dated August 10, 2011.

1-6. Principal Changes.

This Order incorporates the following principal changes:

a. Updated and changed flowchart diagrams for Safety Assessment Screening (SAS) forms (Figures 4-2, 4-3, and 4-4).

b. Updated the Safety Assurance Process flowchart (Figure 5-1).

c. Added frequency of when SMS program audits will occur (paragraph <u>5-3</u>).

d. Revised the Associated Administrator for Airports (ARP-1) roles and responsibilities (paragraph <u>7-2</u>).

e. Adds escalation language for situations when two separate panels are being convened for the same or similar hazard(s) (paragraphs 7-5 and 7-7).

f. Redefined/added new information on other FAA LOBs and Offices (paragraph 7-9).

g. Removed, except in <u>Appendix B</u>, all references to <u>Part 150</u>, *Airport Noise Compatibility Planning*, trigger requirements as they relate to Safety Risk Assessment.

h. Revised/changed all references to a Safety Management Division and replaced it with Safety Management Cadre.

i. Added new terms to the glossary (<u>Appendix A</u>).

j. Updated/added a new Risk Matrix (<u>Appendix C</u>).

k. Revised/updated the SAS-1 form and instructions (<u>Appendix D</u>).

1. Revised/updated the SAS-2 form with the addition of Airport Data and Information Portal (ADIP) to the existing Modifications of Standards (MOS) tool and updated instructions (<u>Appendix D</u>).

m. Revised the SAS-3 form and instructions (<u>Appendix D</u>).

n. Updated/revised the curriculum matrix (<u>Appendix E</u>).

1-7. Safety Risk Management (SRM) Applicability Triggers.

See paragraph 4-3 for more complete information.

a. FAA approval of new or updated Airport Layout Plans (ALPs).

b. FAA approval of Construction Safety Phasing Plans (CSPPs).

c. FAA airspace determinations for airport sponsor requests for non-construction airport changes. See paragraph 4-3e.

d. FAA approval of an airport sponsor's request for a Modification of Standards.

e. Final FAA approval of new and updated airport planning, design, or construction standards.

1-8. Applicability.

This Order and SRM process is applicable to all processes and procedures managed by all levels of ARP staff (i.e., both HQ and field). This generally includes oversight of all 14 Code of Federal Regulations (CFR) <u>Part 139</u>, *Certification of Airports*,¹ and National Program of Integrated Airport System (NPIAS). However, small, medium, and large hub airports shall incorporate all aspects, with smaller airports incorporating aspects of this Order when deemed appropriate by the responsible FAA ARP representative. The regional Airports office or Airports District Offices (ADOs) may elect to conduct SRM at non hub airports and non-primary (general aviation) airports where it is deemed beneficial and appropriate.

1-9. Application Exceptions.

This Order applies to all ARP standards and approvals except:

¹ This Order defines the FAA's responsibilities related to SRM associated with airport development projects, including all airports included in the National Plan of Integrated Airport Systems (NPIAS), regardless of whether the airport is certificated under <u>Part 139</u>.

a. Regulation of airports under <u>Part 139</u>. ARP is engaged in a rulemaking project to develop standards for implementing SMS at certificated airports. Once the FAA completes its rulemaking under <u>Part 139</u>, ARP may synchronize its SMS efforts both internally and externally to the extent practicable. This Order applies to applicable Federal approvals and projects at certificated airports regardless of the rulemaking.

b. Occupational Safety and Health Administration (OSHA) requirements and FAA Order 3900.19, *FAA Occupational Safety and Health Program*.

1-10. Integration and Coordination.

a. FAA Order 8000.369, *Safety Management System Guidance*, provides the FAA standards for SMS guidance.

b. The ARP SMS is one of many the FAA has developed. While each SMS addresses organization-specific needs, they must all work together under a common framework to ensure an efficient and effective approach. The ARP SMS will support interaction among organizations, critical for achieving our common safety goals, such as:

(1) ATO, including Terminal, Technical Operations, System Operations–Flight Procedures, Service Centers, and Safety;

(2) AVS;

(3) Airport sponsors and industry groups;

(4) Aircraft operators and manufacturers (for issues related to planning and design standards); and

(5) AST, including launch site sponsors and industry groups, and launch vehicle developers and operators (for issues related to planning and design standards).

c. As described in FAA Order 8000.369, the FAA Safety Management System Committee provides advice and guidance to LOBs on development, implementation, and interoperability of SMS throughout the FAA. The committee also ensures harmonization of all FAA SMS efforts and serves as a forum for discussing Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion across all FAA organizations.

1-11. Related Documents and Publications.

ARP SMS principles and standards were formulated using information and ideals from the current versions of these publications:

a. **FAA Order 8000.369**, *Safety Management System*. Provides the requirements for FAA organizations incorporating SMS. [See https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/docume_ntNumber/8000.369.]

b. **FAA Order 8040.4**, *Safety Risk Management Policy*. Provides risk management policy for FAA LOBs to follow when hazards, risks, and associated safety analyses affects multiple LOBs. [See

<u>https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/docu</u>

c. International Civil Aviation Organization Safety Management Manual, Doc 9859. Provides countries with guidance to develop the regulatory framework and supporting documents for implementing safety management systems by service providers and developing of state safety programs for regulators. [See

https://www.icao.int/safety/SafetyManagement/Pages/GuidanceMaterial.aspx.]

d. Air Traffic Order JO 1000.37, *Air Traffic Organization Safety Management System.* Describes the roles and responsibilities for implementing SMS within the Air Traffic Organization. [See

http://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/docume ntNumber/1000.37.]

e. Air Traffic Organization SMS Manual. Provides guidance, processes, and tools to ATO personnel for managing the safety of the National Airspace System (NAS), building on ATO safety management capabilities. [See <u>https://www.faa.gov/air_traffic/publications/</u>.]

f. Safety Risk Management Guidance to System Acquisition (SRMGSA). Provides guidance to ATO on conducting SRM. [See <u>https://www.faa.gov/air_traffic/publications/</u>.]

g. ARP Standard Operating Procedure (SOP) 4.0, Standard Operating Procedure for Safety Risk Management (SRM) Under the FAA Office of Airports Safety Management System (SMS). Evaluated and updated as required when changes to the Order occurs. [See https://www.faa.gov/airports/resources/sops/.]

h. **FAA Office of Airports Safety Management System (SMS) Desk Reference.** Evaluated and updated as required when changes to the Order occurs. [See <u>https://www.faa.gov/airports/airport_safety/safety_management_systems/internal/.</u>]

i. AVS SMS Order VS 8000.367, Aviation Safety (AVS) Safety Management System Requirements. Provides the means for continued evolution of a proactive approach to improving safety performance through requirements for AVS services and offices. [See <u>https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/docume</u> <u>ntNumber/8000.367.]</u>

Chapter 2. Safety Management Systems

2-1. General.

a. An SMS is a formalized and proactive approach to system safety applied through an integrated collection of practices, procedures, and programs through risk management. ARP affirms its continued commitment to safety by introducing and upholding SMS standards in this Order through the process of:

(1) Directly supporting the FAA's mission, which is to provide the safest, most efficient aerospace system in the world;

(2) Recognizing the SMS set of defined processes that enables ARP to anticipate and adapt to changes and continuously improve airport safety;

(3) Ensuring documentation of all system changes and tracking of all problems and issues to conclusion;

(4) Creating a safety philosophy throughout the organization leading to effective monitoring and continuous safety improvement; and

(5) Appropriately applying SMS principles to identify, analyze, and mitigate system hazards and risks without a negative effect on the overall mission.

b. The FAA uses SMS to oversee and uphold safety throughout the NAS. SMS uses a risk management approach for decisions. It establishes suitable policies and methods of feedback and evaluations to ensure an acceptable level of safety when planning and carrying out any potential changes to the NAS. FAA Order 8000.369 identifies four components of an SMS:

- (1) Safety Policy,
- (2) Safety Risk Management (SRM),
- (3) Safety Assurance, and
- (4) Safety Promotion.

2-2. Guidelines.

The ARP SMS aligns with FAA Order 8000.369. Additionally, the following principles ensure it also meets ARP'S specific needs:

a. ARP's SMS intent is to improve existing ARP practices and to create new procedures when the ARP Safety Review Board recommends such improvements are necessary. (See paragraph 7-3.)

b. Management is informed of the safety risk associated with decisions and possible alternatives.

c. Safety hazards, their associated risks, and mitigations are properly documented.

d. ARP is committed to an integrated approach to SMS; therefore, the SMS must share common features with other FAA LOBs, including:

(1) Common definitions and understanding of risk application,

(2) Common collaborative approaches to satisfy SRM panel requirements impacting multiple LOBs,

(3) Consistent methods for analyzing and assessing safety risks associated with hazards,

- (4) Common SRM techniques,
- (5) Consistent Safety Assurance procedures, and
- (6) Common approaches to defining acceptable levels of risk.

2-3. Roles.

As a whole, the FAA plays the dual roles of service provider (as with air traffic services) and development stakeholder/safety oversight (through Airport Improvement Program (AIP); CFR Parts <u>139</u>, <u>21</u>, <u>91</u>, <u>121</u>, and <u>135</u>; and other regulations).

a. Service providers directly control risks through the control of resources, personnel, and operational procedures. ATO is a service provider for air traffic control services. Individual airports are also service providers because they develop, operate, and maintain the airport infrastructure and facilities, and control airfield and airport operations. ARP partners with airports in the provision of those services by providing standards for and approval of airport projects.

b. The FAA provides safety oversight for industry participants, such as:

- (1) 14 CFR Part 21, Certification Procedures for Products and Articles
- (2) 14 CFR Part 91, General Operating and Flight Rules

(3) 14 CFR <u>Part 121</u>, Operating Requirements: Domestic, Flag, and Supplemental Operation

(4) 14 CFR <u>Part 135</u>, Operating Requirements: Commuter and On Demand Operations and Rules Governing Persons On Board Such Aircraft

c. Safety oversight of airports is provided through <u>Part 139</u>, *Certification of Airports*, for certificated airports and through Federal obligations and grant assurances for all airports accepting Federal financial assistance.

d. ARP is not a service provider; therefore, it is only able to control safety risk in the NAS through a unique set of standards, approvals, and oversight to the airport industry:

(1) Standards, including but not limited to airport design, planning, construction safety, airport operations, visual aids, navigation aids, and others. Some examples are:

(a) Airport planning, design, and construction standards published in FAA Advisory Circulars (ACs) such as 150/5070-6, *Airport Master Plan*; 150/5300-13, *Airport Design*; and 150/5370-2, *Operational Safety on Airports During Construction*.

(b) Airport operation and maintenance standards published in FAA ACs such as 150/5340-30, *Design and Installation for Airport Visual Aids*; and 150/5345-44, *Specification for Runway and Taxiway Signs*.

(2) Review and approval, as required, of proposed facility changes such as:

(a) Approval of ALPs, including all associated revisions (FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, airspace approvals, updates, etc.).

(b) Approval of Federally assisted construction projects.

(c) Review and coordination of non-Federally assisted construction projects, including projects funded by Passenger Facility Charges (PFCs) (14 CFR <u>Part 158</u>, *Passenger Facility Charges (PFCs)*).

(d) Approval or disapproval of requested project-specific MOSs.

e. Safety Oversight as it relates to:

(1) Administration of airport regulations, including <u>Part 139</u> (certification of airports supporting certain types and levels of commercial air service).

(2) Monitoring design and construction phases of projects funded under the Airport Improvement Program (AIP) and with PFCs.

Chapter 3. Safety Policy

3-1. Purpose.

Safety policy provides the foundation for SMS. It is the documented organizational policy that defines management's commitment, responsibility, and accountability for safety. Additionally, it outlines the overall goals, needs, resources, priorities, methods, and tools for achieving management desired safety objectives and outcomes.

3-2. Safety Policy.

ARP is committed to sustaining SMS throughout the organization. The Associate Administrator for Airports develops and documents the ARP safety policy. The ARP safety policy helps management and employees alike to:

a. Provide a common framework to proactively identify and address safety hazards and risks associated with airport planning, procedures, and operations.

b. Continuously improve and uphold safety as the highest priority.

c. Encourage both internal and external stakeholders to work together early in all applicable processes.

d. Facilitate and promote a continuous effort of assessing, correcting/mitigating, and monitoring airports safety culture.

e. Consistently evaluate hazards and decisions to remove, control, and mitigate those hazards and their associated safety risks.

f. Promote an environment where safety is our first concern when considering a change to the NAS.

g. Enable measurement of achievement through performance analysis and matrices.

3-3. Supporting Requirements.

ARP management will ensure:

a. Measurable, attainable, relevant, and time-bound safety objectives, and promoting a positive safety culture.

b. Supporting safety objectives by clear methods, procedures, and guidance in each ARP program area as required by this Order. All SMS guidance will be clear, comprehensive, and concise.

c. ARP SMS employs integrated data-driven risk management to the maximum practicable extent. The reasonable use of data may include the SME's perspective, creditable data, and historical information to support efforts to determine potential hazards.

d. ARP uses transparent, unambiguous safety performance measurement, including documentation of safety risk and mitigation actions.

e. ARP's SMS features organization-wide understanding and application of SMS principles, including comprehensive and thorough training as necessary.

f. ARP provides outreach to our external stakeholders explaining the benefits of SMS. Outreach may include the maintenance of a website for lessons learned and best practices. See <u>https://www.faa.gov/airports/airport_safety/safety_management_systems/</u>.

Chapter 4. Safety Risk Management

4-1. Introduction.

SRM is a formalized approach to safety. It ensures sound safety decisions by identifying and examining hazards as early as possible. When hazards are recognized, the groundwork for effective risk mitigations should be based on well-documented data. Based on any review and resulting data documentation, this process becomes what ARP SMS identifies as a Safety Assessment (SA). For supplemental guidance on applying the aspects of ARP SRM, review the following guidance:

a. ARP SOP 4.0, Standard Operating Procedure for Safety Risk Management (SRM) Under the FAA Office of Airports Safety Management System (SMS).

b. ARP SMS Desk Reference.

4-2. Purpose.

SRM enables ARP to:

a. Identify hazards and analyze and assess the risk associated with airport planning, construction, modification to standards, and the implementation of new/updated FAA standards.

b. Outline safety requirements to reduce risk to acceptable levels and document the safety decisions.

c. Coordinate with stakeholders who have operational responsibilities.

d. Utilize a system-wide communication tool for airports to document hazards and mitigations to ensure expected risk levels are met and maintained.

e. Foster and maintain a positive safety culture.

4-3. Scope of SRM Triggers.

Within ARP, SRM applies to ARP-produced airport standards and project-specific approvals having a direct impact on aviation safety. ARP standards and approvals include:

a. Development of and updates to airport planning, environmental, engineering, construction, operations, and maintenance standards published in ACs.

b. FAA review of new or updated ALPs.

c. Construction project coordination, action, or approval for federally obligated airports, including final approval of Construction Safety and Phasing Plans.

d. Approval of requests for project-specific MOSs (excludes AC 150/5370-10, *Standard Specifications for Construction of Airports*).

e. Other than physical construction changes which includes non-construction changes, including runway and taxiway designations, airfield pavement marking and signage (excluding normal maintenance), runway categories (design aircraft), and, in coordination with other LOBs, planned approach or departure procedure changes.

f. Modification or update to any action representing a material change from a previous SRM review or Safety Assessment.

4-4. ARP Actions Not Requiring an SRM Panel.

<u>Appendix B</u>, *Airport Project Approvals Not Typically Requiring Safety Risk Management Panels*, provides a list of projects and actions that typically do not require an SRM panel.

4-5. Safety Baseline.

A safety baseline of June 1, 2011 was established for the ARP SMS. A safety baseline is a pointin-time description of system (facility) safety, reflecting existing conditions. A baseline does not mean the existing system or facility is hazard-free, but rather provides a concise description of the "as-is" safety condition at a specific time. Changes to that system have the potential to introduce hazards. The introduced change will be compared against the safety baseline to identify any hazards introduced or altered by the change. Acceptance of the baseline did not imply or state that the NAS was or was not inherently safe as established on June 1, 2011, nor did it imply that the NAS had no existing risks. Prior approvals and standards existing before this date did not automatically require a retroactive Safety Assessment. However, the FAA may require a Safety Assessment of existing standards or conditions for new or revised airport standards and MOS in accordance with FAA Order 5300.1, *Modification to Agency Airport Design, Construction, and Equipment Standards*, or when reviewing existing conditions (such as during an ALP review) that are known to include previously unidentified hazards even if those conditions were previously approved by the FAA.

4-6. Safety Assessment Process.

a. The ADO or Project Manager (PM) initiates the SA process for an applicable project (see paragraph <u>4-3</u>). This order uses the term "ARP PM" to refer to the ARP planner, engineer, or environmental specialist who is assigned responsibility for the ARP approval action. ARP uses the SA process to evaluate projects during the screening and assessment phase or during a Safety Risk Management Panel (SRMP). The process can apply to planning and development projects, MOSs, and new or updated ACs and standards.

b. The typical SA process is as follows:

(1) The PM screens the project to determine if an SA is needed using the appropriate SAS form (see paragraph 4-7 and <u>Appendix D</u>).

(a) SAS forms provide the formal and acceptable method of documenting the screening process.

(b) If an SAS form is required, the PM initiates filling out the SAS form any time during the SA process but completes it before the approval action is complete.

(2) If the SAS form indicates a safety assessment is necessary, the PM will proceed through the remaining portions of the appropriate form.

(a) The SAS might indicate that an SRMP is necessary.

(b) If the PM determines no SRMP is required, the PM will:

(i) Document the no SRMP required action on the SAS form and include the rationale used to make the no SRMP determination.

(ii) Complete and sign the appropriate SAS form.

- (c) If the PM determines an SRMP is required, the PM will:
 - (i) Consult with the appropriate airport sponsor.

(ii) Recommend to the airport sponsor a panel of subject matter experts (SMEs) and stakeholders, with operational and safety responsibilities, who are knowledgeable about the action or activity about to be assessed.

(iii) Include representatives from the airport sponsor, industry groups, and other FAA LOBs. The goal is to generate a well-rounded safety analysis that accurately depicts the safety risk associated with the safety issue and/or change being assessed.

(iv) Ensure the SRMP analyzes and considers all relevant and available data to form a sound basis and rationale for its deliberations. Additional data and analysis, including modeling and simulations, may also be appropriate for larger projects and complex operating environments.

c. The SA process follows and is depicted in Figure 4-1.

(1) **Describe the Facility or System.** Identify the operating environment, scope, and objectives of the facility or system affected. For construction projects, use the scope of the proposed change as the starting point. Develop a detailed description of the proposed change and its affected elements. Include related systems the proposal may affect. Consider operational, procedural, organizational, and environmental factors as well as physical characteristics.

(2) *Identify Hazards.* Identify any realistic or reasonable condition or situation creating adverse safety outcomes for the airport, users, and surrounding community. Use a structural approach. Seek a comprehensive inclusive approach to avoid dismissing potential hazards prematurely. Be sure to consider operational, procedural, personnel, organizational, and environmental factors that create hazards. Employ lessons learned and experience supplemented by relevant guidance documents.

(3) *Analyze Risks.* For each hazard, identify the worst-case outcomes that are reasonable or credible within the operational lifetime of the system. Identify existing controls or mitigations that reduce a hazard's causes or effects. Determine the severity and likelihood of the

hazard's effect. Use the <u>Safety Assessment Tables</u> to identify the category for severity and likelihood and complete the analyze risk stage.

(4) *Assess Risks.* Assign a risk level for each hazard based on severity and likelihood. Severity and likelihood are assessed to determine and plot each hazard and associated risk using the Predictive Risk Matrix in <u>Appendix C</u>. Results include high initial risk, medium initial risk, or low initial risk.

(5) *Mitigate Risks.* Identify appropriate means to mitigate or manage risk. For risk higher than acceptable levels, eliminate or reduce risk to the lowest residual level (also known as residual risk). Techniques to lower risk to acceptable levels may include a combination of planning and design modifications or mitigation measures. A mitigation is a mean to reduce or eliminate the effects of hazards. Mitigations to be implemented beyond the triggering approval must be verified, monitored, and tracked to ensure they are properly implemented and effectively reducing the risks associated with the hazards. *The FAA requires the mitigation of high-initial risk.* Medium and low initial risks are acceptable but may require modification of the proposed change and/or mitigation and tracking.

Figure 4-1. SRM Safety Assessment Process



4-7. Documentation.

Use the proper SAS form in <u>Appendix D</u>, with attachments, to document SRM findings and approvals. For documented ARP SAs, the SAS form serves a function similar to the ATO Safety Risk Management document. The SRM document is a safety analysis for a proposed NAS change or an existing safety issue. It documents the evidence to support whether or not the proposed NAS change/existing safety issue is mitigated to an acceptable level from a safety risk perspective.

a. For proposed airport planning and development projects, the PM should consider and plan SRM activities in both the Scope of Work and decision-making process. The PM should also acknowledge relevant timelines in line with any expected FAA approval. Use SAS-1 and follow the general workflow in Figure 4-2 for the following types of projects:

(1) FAA approval of new or updated ALPs (including any associated environmental review),

(2) FAA approval of construction safety phasing plans (CSPPs), and

(3) Other than physical construction change which includes non-construction airport changes.

b. For proposed project-specific MOSs, use SAS-2 and follow the general workflow in Figure 4-3.

c. For new or updated planning, design, or construction design standards to be published in ACs, use SAS-3 and follow the general workflow in <u>Figure 4-4</u>.



Figure 4-2. Airport Planning and Development Projects (SAS-1)



Figure 4-3. Modification of Standards (SAS-2)



Figure 4-4. Airport Standards Development (SAS-3)

Use FAA Form 5210-10. See Appendix D.

4-8. SRM Panels.

SRM panels are an effective tool for providing a thorough examination of hazards and risk associated with any proposal. However, they are labor-intensive and should be used judiciously, on the most safety-critical decisions. Additionally, although exclusive ATO SRM panels may not fulfill the scope of ARP SRM requirements, results of ATO SRM panels should be considered when conducting any ARP safety assessment and determining the need for an ARP SRM panel. ARP personnel should attempt to mitigate any discovered hazards using the tools assigned to them. If unable to mitigate, use the following guidance to ensure the timely and effective panel formation:

a. **Project Managers.** PMs anticipate the need for an SRM panel and begin planning and scheduling as early as possible to ensure the panel does not jeopardize the approval or determination associated with the triggering action. Panel formation can be considered as soon as the PM becomes aware of an intended objection during the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) review. The PM should consult with the regional SMS coordinator when considering forming an SRM panel. Limit panels to those identified as necessary by the applicable SAS form and as described in paragraph <u>4-7</u>. If an action will not have an impact outside of ARP, a team of ARP SMEs may conduct the assessment and complete the needed documentation. Otherwise, a formal SRM panel will be required.

b. **Panel Members.** Select panel members or SMEs based on their technical expertise or operational responsibilities for the proposal, facility, or system under review or consideration and their authority to make decisions for their respective organizations. Typically, SRM panel members include representatives from the airport sponsor, industry groups, FAA LOBs, and other relevant stakeholders. Limit the SRM panel to a sufficient number of participants that the facilitator(s) can manage without being overwhelmed in order to accomplish the goal of the SRM panel. Consultation with the regional SMS coordinator well in advance of convening an SRM panel will promote a balanced panel representation of both internal and external stakeholders.

c. **Panel Facilitator.** All SRM panels are required to have a panel facilitator or a team of facilitators trained and qualified in facilitation and SRM. The airport sponsor selects the facilitator in consultation with the regional SMS coordinators. The facilitator helps scope the safety analysis and moderate the deliberations of the SRM panel. The facilitator engages the panel to develop a thorough SA by becoming well-versed in the subject matter (e.g., by requesting briefings and collecting all available and relevant safety information), as necessary, before the SRM panel convenes. The facilitator cultivates discussion among panel members about potential hazards, risks, and mitigations. An effective SRM panel facilitator ensures the SRM process is followed in an unbiased manner and works to achieve consensus. He or she captures opinions and remains neutral throughout the process by not advocating for a specific outcome. Facilitators should complete the Office of Airports SRM Panel Facilitation Course before leading an ARP SRM panel. Where an SRM panel involves multiple LOBs, facilitators from other LOBs are acceptable and the regional SMS coordinator should consider recommending one, in consultation with the airport sponsor, from a pool of FAA facilitators. If one of these facilitators is used, other FAA equivalent facilitation courses will fulfill the training requirement. (See Appendix E, ARP SMS Curriculum Matrix, and the ARP SMS Desk Reference.) Other duties of the facilitator include:

(1) Select and notify panel members.² The facilitator, in consultation with the airport sponsor, ADO, and regional SMS coordinator, must identify the appropriate SMEs for the panel from applicable organizations and industry agencies. The size and composition of the SRM panel will vary with the type and complexity of the proposed SA or change being considered. The SRM panel should be limited to an appropriately sized team of stakeholders and SMEs. A co-facilitator can help when the panel size exceeds 12 members and/or the subject matter is complex. Organizations or industry agencies should identify panel members or SMEs within 30 business days of the request. The facilitator should let the organization or industry agencies know if the panel would need multiple meetings. In situations where an organization or industry agency either does not respond to the request or fails to provide an SME, the facilitator should consider seeking members from the following groups:

(a) Airport sponsor (including airport operations, airport maintenance, aircraft rescue and fire fighting, planning, and airport tenants if required).

(b) Air Traffic Control Tower (ATCT) manager (or ATO District Office/Air Route Traffic Control Center/Terminal Radar Approach Control for a non-towered airport) and National Air Traffic Control Association union representative as required.

- (c) ATO-Technical Operations.
- (d) ATO-Safety (Regional Runway Safety Office).
- (e) Flight Standards District Office.

(2) Complete pre-meeting logistics and documentation.

(a) Orchestrate the meeting time, location, and tools. The facilitator(s) will arrange a location for the panel to meet and discuss the SA. Facilitators should be aware of travel schedules and budgets. If necessary, facilitators can use online meetings, telephone or video conferencing, and other collaboration technologies.

(b) Create pre-meeting documentation. The airport sponsor in collaboration with the facilitator will prepare a description of the system, its current state, and the proposed change. ARP developed the Project Proposal Summary (PPS) format to standardize this first step of the SRM panel.

(i) For describing the system, including documenting the baseline conditions (existing facilities or system), summarizing the proposed action, and explaining any impacts to facilities, use the PPS sample in the ARP SMS Desk Reference.

 $^{^{2}}$ In cases where the facilitator is not an FAA employee, the FAA office responsible for the Safety Assessment will collaborate with the facilitator to select panel members.

(ii) The facilitator will document this information and send it to the panel members at least 5 business days before the first meeting so all members understand the issues and change that will be analyzed during the meeting.

(3) Facilitate during panel meetings.

(a) Provide guidance on ARP SMS and SRM requirements. The facilitator should be familiar with SRM and the requirements for conducting and documenting SAs. Since some panel members will be from organizations other than ARP, they may need a summary of ARP requirements. The facilitator should choose someone to take notes during the panel meetings if the facilitator is unable to do so. On the first day of the SRM panel meeting, the facilitator should present an SRM panel orientation that includes:

(i) A briefing on the agenda for the meeting.

- (ii) A summary of the goals and objectives for the SRM panel.
- (iii) A brief review of the SRM process.
- (iv) SRM panel ground rules.

 $(v) \ \ \, \mbox{The assessment method}(s)$ by which the SRM panel will identify and evaluate potential hazards.

(vi) A copy of the PPS and a breakdown of the description of the change as well as any preliminary data collection and analysis.

(b) Keep the panel focused on the scope. The facilitator should moderate and control the panel discussion so it remains focused on the reasonableness and scope of the issues. The SRM panel facilitator may perform or delegate the function of timekeeper in order to manage start times and breaks. The panel should identify and analyze only those hazards for the described system or change. If the panel discovers issues outside the scope of the panel, the facilitator should document those issues and forward them to the office with primary responsibility. Failure to adequately describe the system and scope can negatively affect the risk analysis and potentially hinder the overall risk assessment.

(4) **Complete post-meeting documentation.** After the panel members meet, the facilitator will document the panel's findings in the applicable SAS for review and approval by all panel members and the airport sponsor's authorized representative, where applicable. The final report should document the SRMP results, PPS, discussion summary, assessment tools used, severity and likelihood conclusions and the rationale for those outcome classifications, and any alternative perspectives on the overall risk determinations. The SRM panel should strive to reach consensus, but there may be instances in which not all SRM panel members agree on the results of the safety analysis. In those cases, document the results of the analysis, and record the opinions of the dissenters. The dissenting panel member must provide their own written explanation of their dissent, with supporting data and/or evidence. The facilitator compiles it all and delivers the results as part of the overall SA. If accessible, the facilitator will use the Hazard Identification Risk Management and Tracking Tool (HIRMT) to record and track any hazards.

4-9. Risk Acceptance and Signature Requirements.

ARP is a partner in accepting risk with organizations responsible for the system under consideration. Various LOBs such as ATO or AST assess and accept risk differently for the operations under their jurisdiction. The airport sponsor accepts risks for the operation of the airfield. ARP has a stake in that risk acceptance by approving projects and requiring airport sponsors to meet FAA standards. All SRM documents, including but not limited to the SAS, ACs, and MOSs, will have one ARP signatory. Typically, that is the manager who has proper responsibility to accept the risk identified in the SA and documentation. ARP requires only one signature for SRM acceptance, while other LOBs may require one or more. Table 4-1 summarizes ARP acceptance signature requirements.

Project Type	High Initial Risk	Medium Initial Risk	Low Initial Risk
Airport Projects	Safety Review Board for review and ARP-1 for approval	Regional Division Directors who have authority over the change	ADO Managers who have authority over the change*
Modifications of Standards (MOSs)	Safety Review Board for review and ARP-1 for approval	AAS-1	Headquarters (HQ) Division Managers who have authority over the change (AAS-100 or AAS-300)
Advisory Circulars (ACs) (New and Updated Standards)	Safety Review Board for review and ARP-1 for approval	HQ Office Directors who have authority over the change (AAS-1 or APP- 1)	HQ Division Managers who have authority over the change (AAS-100 or AAS-300)

Table 4-1. Safety Assessment Acceptance and Signature Requirement

Acceptance authorities shown may not be delegated

* In regions without ADOs, the applicable Regional Branch Manager or Deputy Division Director holds signature authority.

4-10. National-Level Safety Assessments.

ARP may choose to complete national-level SAs for particular initiatives or programs where the SA outcome can be applied across the NAS. This may take the place of location-specific assessments as long as certain conditions are met. Regional Offices, ADOs, or other LOBs should coordinate requests for national-level SAs through the Safety Management Cadre, which will:

a. Escalate the request up through the Headquarters (HQ) SMS Committee and,

b. Form any potential panel with representatives from HQ Divisions, appropriate LOBs, and ARP field offices, where applicable.

4-11. Other Guidance for Conducting Safety Assessments and the SRM Process.

Any additional guidelines will be incorporated in AAS and Office of Airport Planning and Programming (APP) program guidance as applicable.

Chapter 5. Safety Assurance

5-1. Introduction.

a. **Purpose.** ARP's SMS includes formalized processes that proactively identify hazards and risks. Safety Assurance provides tools that allow ARP to track how the SMS performs, confirm the SMS is achieving intended outcomes (that is, mitigations developed through SRM are attaining the intended safety benefit), and continuously improve standards, operations, and practices to decrease safety risk. Safety Assurance is closely linked to SRM. It provides confidence that mitigations are having their intended effect and that newly identified hazards (from sources other than approvals or changes to standards) are properly evaluated through the SRM process.

b. **Background.** Safety Assurance relies on the analysis of safety-related information and data to draw conclusions about the effectiveness of the SMS. For example, information and data includes employee reports, agency safety databases, results from ARP-led Safety Assessments, investigations, and internal evaluations and audits. ARP analyzes this safety data and information to identify hazards and risks that require assessment and possible mitigations under SRM. ARP also analyzes the data to draw conclusions about the effectiveness of ARP's SMS, the status of implementation, and the general safety of those features of the national system of airports for which ARP is responsible.

5-2. Introduction to the Safety Assurance Process.

- a. The four steps of Safety Assurance are:
 - (1) Information acquisition.
 - (2) Analysis.
 - (3) System assessment.
 - (4) Continuous monitoring of preventive/corrective actions for non-conformance.

b. <u>Figure 5-1</u> shows how the steps of Safety Assurance align with SRM within ARP's SMS. Safety Assurance works with SRM. Safety Assurance ensures that risk mitigations continue to achieve their intended objectives. It also evaluates the need for new mitigations because of changes in the operational environment.



Figure 5-1. Safety Assurance Process and its Links to SRM

5-3. Information Acquisition.

Information gathering is the first step within the Safety Assurance process. It requires ARP to collect data and information to prove SMS effectiveness. Data and information will be gathered at a minimum from the following resources: employee reports, results from ARP-led SAs, agency safety databases or reports, investigations, and internal evaluations and audits.

a. **Employee Safety Reporting.** ARP established the Airports Voluntary Reporting System (AVRS) to equip employees with the capability to report on activities, situations, or occurrences, without the fear of retaliation, that they believe could become a hazard at an airport or within the NAS. AVRS enables FAA ARP employees to report hazards, safety-related issues, concerns, and incidents and a process in which they can provide recommended solutions and ideas for safety mitigations or improvements. The Safety Management Cadre is responsible for managing the AVRS for ARP. The AVRS process begins when an employee files a confidential report to raise a safety issue through an online reporting system. An AVRS Oversight Board composed of three FAA executives will then review, investigate, and help resolve the reported items. The Board will send recommendations to the appropriate manager and monitor the agreed-upon solution. The Board also will send a final report to the employee who raised the safety concern, after removing identifying information and posting a resolution report for all ARP employees to view. The board members must sign a confidentiality agreement. The AVRS can be accessed via the following link: <u>https://my.faa.gov/org/linebusiness/arp/programs/safety-certification/reporting.html</u>

(1) Accessibility and Purpose. The employee reports and database will be evaluated by the AVRS Oversight Board to determine if identified hazards require SRM. The reports and database will also be used to assess the effectiveness of the ARP SMS.

(2) Use by the Safety Management Cadre. The Safety Management Cadre, in collaboration with the Oversight Board, will analyze data collected by the AVRS. The Safety Management Cadre comprises the AAS-300 division manager, deputy division manager, and SMS coordinator(s) for the internal/external SMS effort. It will then compare that data to other safety data inventories while tracking all mitigations under ARP control, regulation, or oversight. The Safety Management Cadre will use the AVRS District Offices, HQ Offices and Divisions, and airport sponsors as sources for any potential data. The Safety Management Cadre will post lessons learned on the FAA public and employee websites as appropriate.

b. **ARP-led Safety Assessments.** SRM ensures that mitigations required for initial high and medium risk actions are put into place to address the risk. The mitigation or monitoring plan should be comprehensive to verify the predicted residual risk. The monitoring organization must verify that the controls and/or safety requirements were indeed put in place and are functioning as designed. While this function may be considered a part of SRM, it is also a function of Safety Assurance and can provide essential information about the effectiveness of mitigations in improving safety. Therefore, any office that conducts SAs will periodically confirm the implementation and assess the effectiveness of mitigations required under SAs they lead. The Regional Directors manager may delegate this periodic confirmation and review to the Regional SMS Coordinator (see paragraph 7-7f(4)). The Safety Management Cadre will also review a sampling of ARP SAs to assess compliance with SMS requirements.

c. Agency Safety Databases or Reports. Safety data housed in agency safety databases may also provide key indicators about how well the SMS is performing. Such databases include the Certification and Compliance Management Information System (CCMIS), Air Traffic Quality Assurance System (ATQA), Aviation System Information Analysis and Sharing (ASIAS) System, and HIRMT. Other sources such as Runway Safety Action Team (RSAT) reports and Runway Safety Action (RSA) Plans can provide SRMPs with useful information such as vehicle/pedestrian deviation data. The Safety Management Cadre will periodically check these databases and gather relevant safety data for analysis.

d. **Investigations.** Information gained through investigating incidents or accidents provides much insight into the safety of the NAS. As required by FAA Order 2150.3, *FAA Compliance and Enforcement Program*, and FAA Order 5280.5, *Airport Certification Program Handbook*, ARP will aid or lead in the investigation of accidents and incidents, where necessary. The findings of these investigations may identify potential hazards or ineffective risk mitigations employed through SRM.

e. **Internal Evaluations and Audits.** Internal evaluations and audits also provide information for analysis. This data contributes to Safety Assurance by providing information on performance, compliance, and status of SMS implementation within ARP.

(1) **Internal Evaluations.** To assess whether the organization is following SMS policies, any HQ Division, Regional Office, or ADO may conduct internal evaluations. The office's staff or manager may conduct these evaluations. Managers may also request help from the regional SMS coordinator or Safety Management Cadre.

(a) **Subject Functions.** An internal evaluation may include assessing all or some of these safety management components:

- (i) Safety Policy.
- (ii) Safety Risk Management.
- (iii) Safety Assurance.
- (iv) Safety Promotion.

(b) Means.

- (i) Collecting data.
- (ii) Analyzing data.
- (iii) Providing a system evaluation.
- (iv) Taking corrective actions when non-conformity is identified.
- (c) Scope and Frequency. Internal evaluations will be conducted as needed.

(2) **Internal Audits.** To ensure a more formalized evaluation procedure, ARP will conduct internal audits of Regional Offices and HQ Division with roles and responsibilities under the ARP SMS. The Safety Management Cadre, with oversight from the ARP Safety Review Board, will conduct the internal audits for the organization.

(a) **Purpose and Scope.** Internal audits will formally assess performance and compliance with the ARP SMS. Reviews include all SMS requirements applicable to the audited office.

(b) **Means.** Internal audits will include reviews of related SMS documentation, training records, and implementation methods from a sampling of offices under the control of the Regional Office or HQ Division.

(c) **Reporting.** The Safety Management Cadre will send a final report documenting the findings of each internal audit to the ARP Safety Review Board within 3 months of audit completion. Once reviewed by the ARP Safety Review Board, the Safety Management Cadre will send the Final Report to the audited office. The audited office may provide written comments to the Safety Management Cadre within 30 business days of receipt. Comments will be attached to the Final Report and forwarded to the ARP Safety Review Board for final disposition. The ARP Safety Review Board may change the Final Report based on comments received. Copies of the Final Report and attachments will be provided to members of the ARP Safety Review Board, the Safety Management Cadre, and the audited office.

(d) **Frequency.** The Safety Management Cadre will conduct audits as required, but at least one each year (Regional Office or Headquarters Division). Audits may be conducted in person or through virtual communication tools.

5-4. Analysis.

The second step of Safety Assurance is analysis. In this step, the data and information gathered from information acquisition is analyzed to enable conclusions to be drawn in the next step of the process, which is the system assessment. The Safety Management Cadre has primary responsibility for data analysis under the ARP SMS; however, any office with roles or responsibilities under the ARP SMS can conduct analysis.

a. Purpose. Safety data and information is analyzed to:

(1) Identify potential hazards and risks not associated with current Safety Assessments.

(2) Improve ARP's awareness of potential hazards.

(3) Assess the overall safety of those areas of the NAS for which ARP is

responsible.

(4) Identify lessons learned and best practices resulting from Safety Assessments and analysis.

(5) Review Safety Assessment outcomes to identify trends and recommendations appropriate for changes to policies, procedures, or airport standards.

b. **Reporting.** Conclusions that signal new safety issues or ineffective mitigations of initial high-risk hazards will be reported immediately to the Safety Management Cadre. The Safety Management Cadre will review the issue or mitigation and recommend actions to the ARP Safety Review Board.

5-5. System Assessment.

The third step of Safety Assurance is system assessment. System assessment is a practice performed by the Safety Management Cadre.

a. Assessment Criteria.

- (1) Unbiased.
- (2) Inclusive of all relevant data.

(3) Conservative (that is, err on the side of safety), if specific information is not readily available.

- (4) Capable of reintroducing the SRM process when new hazards are discovered.
- b. Resources. Resources used in system assessment include but are not limited to:
 - (1) Employee reports.
 - (2) Agency safety databases.
 - (3) Internal evaluations.
 - (4) Internal audits.

c. **Continuous Monitoring.** The Safety Management Cadre will provide oversight of SMS and offer technical support to HQ Divisions, Regional Offices, and ADOs. Continuous monitoring will include review of the hazard tracking system, agency safety databases, and employee reports.

5-6. Development of Preventive and Corrective Actions for Non-Conformance.

The Safety Assurance process will include procedures to ensure ARP develops preventive and corrective actions when needed.

- a. Criteria. These actions will:
 - (1) Respond to the findings of audits, evaluations, or employee reports.
 - (2) Remove the causes of non-conformance identified during analysis.

- (3) Prevent recurrences.
- (4) Ensure timely implementation.

b. **Monitoring Initial High-Risk Hazards.** The Safety Management Cadre will monitor the implementation of mitigations associated with initial high-risk hazards along with the ARP office responsible for the applicable Safety Assessment. When mitigations are judged ineffective, the applicable ARP office will identify corrective actions.

c. **ARP Safety Management Cadre.** The Safety Management Cadre will provide guidance to ARP Managers with preventive and corrective action for SMS non-conformance.

5-7. Hazard Tracking System.

Safety Assessments hazards are tracked in the HIRMT system.

a. If the safety hazard meets Aerospace Level (ASL) criteria, the information must be entered into HIRMT. A safety hazard that meets one or more of the following criteria is considered an ASL issue and must be reported in and managed through FAA's HIRMT:

(1) The safety issue is tracked and managed by the FAA SMS Committee;

(2) The safety issue is present in the NAS, its safety risk has not been accepted, and it is expected to have high risk (e.g., it is identified as a result of an accident or incident or it is assumed to have high risk but an assessment has not been completed);

(3) The safety issue has high risk and has a potentially systemic outcome (e.g., the outcome crosses LOBs or the outcome impacts an industry segment rather than an individual certificate holder); or

(4) Any safety issue that an FAA organization's management elects to track in HIRMT.

b. Access and use of HIRMT can be coordinated through Accident Investigations and Prevention AVP-300, the organization that manages the FAA's SMS Program and provides agency oversight of HIRMT. The purpose and use of HIRMT can also be found in FAA Order 8040.4, *Safety Risk Management (SRM) Policy*. There may also be hazards identified outside the SA or SRM processes. If deemed ASL, these hazards should also be documented in HIRMT. This will enable tracking and accountability, increase safety awareness, and strengthen the ARP SMS. The Safety Management Cadre will be responsible for using the hazard tracking system data to identify safety concerns that might affect areas of ARP responsibility.

Chapter 6. Safety Promotion

6-1. Introduction.

a. **Overview.** Safety Promotion includes the actions to create a work environment where SMS objectives can be achieved. The key objective is a positive safety culture. All levels of management will actively promote and provide leadership to ensure a positive safety culture throughout ARP.

b. **Purpose.** A positive safety culture keeps the organization focused on common goals that ARP can act on every day. Focus brings cohesion to the workplace and enables better-coordinated actions. By eliminating ambiguity, the positive safety culture allows employees to make safe choices. When personnel understand the values and goals of the organization, they are empowered to identify and mitigate safety hazards.

6-2. Positive Safety Culture.

Promotion of a positive safety culture is essential to Safety Promotion in an SMS. A positive safety culture relies on open communication channels, individual group values, attitudes, competencies, and patterns of behavior that work in a cyclical fashion as shown in <u>Figure 6-1</u>.



Figure 6-1. Positive Safety Culture Cycle

6-3. Features of the ARP Positive Safety Culture.

ARP management will promote a positive safety culture throughout the organization. Management will do this by increasing open lines of communication, sharing lessons learned, projecting our SMS in a positive light, and personally embracing its fundamental ideas. Our positive safety culture will have the following features:

a. Competent personnel who understand hazards and associated risks, have proper training, have the skills and experience to work safely, and ensure safe approvals or standards are produced.

b. Value for individual opinion and encouragement to identify threats to safety and seek the changes necessary to overcome them.

c. Encouragement and support of a reporting culture where employees are willing and able to report safety hazards and concerns.

d. Assurances of no repercussions for accessing the AVRS.

e. Effective communication, including an open environment for reporting safety concerns.

f. Enough resources to support the commitment to safety.

g. A method for sharing safety information to develop and apply lessons learned and best practices for hazard identification, SAs and mitigations, and other SRM responses. Encouragement to share information about corrective actions and results of management reviews.

h. Willingness to recognize when to challenge basic assumptions and make changes—an adaptive and agile organization.

6-4. Key Managerial Behaviors.

Responsibility for Safety Promotion rests with ARP management. Management will express this responsibility through communication methods and training that include:

a. Ensuring ARP has the appropriate staff with appropriate competencies, skills, and training to perform their functions under the ARP SMS.

b. Ensuring employees receive training and instruction in SMS and safety requirements.

c. Providing a means for communicating safety issues and responding to safety-related reports.

d. Sharing safety information among the LOBs.

e. Permitting SMS coordinators opportunities to cite examples of recent SRM panels' conclusions and lessons learned to senior management.

f. Adding to existing management meetings on a periodic basis a standing agenda item on Safety Promotion.
6-5. Communications.

ARP uses various internal and external communication methods, including print publications, the website, and social and multimedia platforms. These methods are crafted to improve the ARP positive safety culture.

a. **Internal Communications.** ARP has developed effective internal communications that include the employee safety reporting system described in <u>Chapter 5</u>. Additionally, ARP continues to work with other LOBs to improve information sharing across organizational lines. ARP routinely applies lessons learned about hazard identification, Safety Assessments, and other SRM processes. Internal methods of communications will include:

- (1) Employee safety reports
- (2) Newsletters
- (3) Program Guidance Letters
- (4) FAA's public and employees' websites
- (5) Multimedia
- (6) Internal social media tools
- (7) SMS training

b. **Internal Communication Responsibilities.** The Safety Management Cadre has the responsibility to communicate lessons learned and best practices periodically to increase awareness of and reinforce the positive safety culture. The Safety Management Cadre shares safety data to promote best practices and lessons learned to all ARP employees. ARP management promotes the use of employee safety reporting.

c. **External Communication and Responsibilities.** ARP SMS communication to industry is coordinated with the Safety Management Cadre to help identify opportunities to reinforce the core objectives of SMS. External communications methods include:

- (1) Advisory Circulars
- (2) Engineering Briefs
- (3) Program Guidance Letters
- (4) FAA's public website

(5) Multimedia presentations, including those given at regional, state, and industry association conferences

(6) Available and accessible social media

6-6. SMS Training.

All ARP personnel are responsible for knowing and understanding their roles and responsibilities in support of the ARP SMS. ARP develops training tools for employees on SMS policies, procedures, and requirements. The training plays a key role in reinforcing our positive safety culture. ARP ensures personnel receive suitable initial and advanced training on our SMS and its features.

a. **SMS Training Responsibilities.** The Safety Management Cadre manages the SMS training program and develops suitable training materials.

- b. ARP SMS Curriculum. ARP offers the following courses relevant to the ARP SMS:
 - (1) SMS Overview
 - (2) SRM Practitioner Course
 - (3) SRM Panel Facilitation

c. Course Descriptions, Objectives, Prerequisites, and Medium. <u>Appendix E</u> provides relevant details on ARP SMS-related courses.

Chapter 7. Roles and Responsibilities

7-1. Introduction.

This chapter defines roles and responsibilities for ARP and other FAA LOBs that typically provide support and take part in ARP SMS-related activities.

One of the steps to ensure that SMS is set up properly and procedures are correctly applied is to identify who has responsibility for actions under the Safety Policy, SRM, Safety Assurance, and Safety Promotion. ARP Managers have the authority to delegate tasks, except where specifically assigned to ARP-1 or the ARP Safety Review Board or in cases where delegation is expressly prohibited. However, delegation does not relieve the manager of responsibility for accomplishment of that task and ensuring its final approval or acceptance (that is, Safety Assessment approval and risk acceptance).

The ARP SMS defines requirements from the top down. This approach provides structure and prevents repeating requirements among the different levels of the LOB.

7-2. Associate Administrator for Airports (ARP-1).

ARP-1 is the organization's top executive, with full authority for all organizational resources. ARP-1 has direct responsibility for the organization's affairs and is accountable for oversight of system safety under ARP's control. ARP-1 must:

a. Promote a positive safety culture and ensure all ARP personnel do the same. A positive safety culture keeps the organization focused on common goals that ARP can act on every day. The positive safety culture empowers employees to share successes and lessons learned in order to identify and mitigate safety hazards.

b. Provide the funding, personnel, and support necessary to create an effective SMS within ARP.

c. Require the entire organization to follow all policies, procedures, guidance, and standards needed to sustain an effective SMS.

d. Approve this Order and supporting documentation.

e. Approve Safety Assessments (or other SRM documentation) with initial high-risk hazards.

f. Represent ARP on the FAA SMS Executive Council and, when unable to attend a council meeting, delegate attendance to an ARP representative.

7-3. ARP Safety Review Board.

a. Charter.

(1) Review all SAs that have initial high risk or that have system-wide safety implications.

(2) Provide recommendations to ARP-1 about initial high-risk SAs.

(3) Recommend national-level SAs, when needed, be conducted by the HQ Division responsible for the safety issue.

(4) Recommend SAs that cross or impact other LOBs to the FAA's Safety committee.

b. Members.³

- (1) Deputy Associate Administrator for Airports (ARP-2) Chair.
- (2) Director of Airport Safety and Standards (AAS-1).
- (3) Director of Airport Planning and Programming (APP-1).
- (4) Three Regional Division Directors, as determined by ARP-1.
- (5) Safety Management Cadre (see paragraph <u>7-5m</u>).
- (6) Other members required periodically, as designated by ARP-1.

7-4. ARP Directors (AAS-1, APP-1).

The AAS and APP Directors share the following SMS roles and responsibilities:

- a. Hold all supervisors and managers accountable for implementation of SMS.
- b. Ensure SMS is incorporated into the policy, guidance, and practices of their offices.
- c. Set up criteria for identifying personnel who must take SMS training.
- d. Ensure initial SMS training is provided for identified personnel.
- e. Actively promote a positive safety culture throughout their offices and ARP.

7-5. Office of Airport Safety and Standards (AAS).

AAS is responsible for overall guidance and realization of SMS across ARP in close coordination with APP.⁴ AAS also has program responsibilities affected by the ARP SMS, including developing new standards and approving Modifications of Standards. Therefore, as well as overseeing the SMS, AAS must incorporate the requirements of SMS into its programs and practices. Further, AAS must:

³ Membership and decisions made by this Board may not be delegated to subordinate divisions.

⁴ AAS-1 will delegate the roles and responsibilities of the Safety Management Cadre to the Airport Safety and Operations Manager (AAS-300). See paragraph <u>7-5m</u> for more information about the Safety Management Cadre.

a. Develop and keep current policies, procedures, guidance, and standards needed to manage and operate Airports SMS.

b. Keep this Order current and send any changes to ARP-1 for approval.

c. Review and coordinate on other LOB's SMS guidance documents to ensure consistency in SMS application.

d. Adjudicate with affected HQ LOBs situations when the ARP regional office escalates concerns when two separate SRM panels are being convened for the same or similar hazard(s).

e. Keep ARP SMS guidance current and send any changes to the ARP Safety Review Board for approval.

f. Ensure the ARP SMS is consistent with FAA SMS policy and requirements.

g. Incorporate SMS requirements into programmatic policies, procedures, and guidance, including new and updated Orders, Advisory Circulars, and other documents.

h. Ensure that applicable ARP employees complete SMS training, as defined in the ARP SMS supporting guidance.

i. Direct national-level SAs as needed (see paragraph <u>4-10</u>).

j. Require ARP offices to analyze safety data, hazards, and the effects of selected mitigations and conduct SAs when suitable.

k. Represent ARP on the FAA SMS Committee.

l. Provide SMEs, as instructors, for the FAA Academy in-residence SRM Practitioner Course.

m. Lead a Safety Management Cadre responsible for creating and interpreting guidance to ensure successful management of the SMS throughout ARP, providing general program oversight, and offering technical support to individuals throughout ARP. The Safety Management Cadre will also serve as the ARP point of contact for ARP SMS issues.⁵ A member of the Safety Management Cadre will represent ARP at interagency meetings for SMS. Additionally, the Safety Management Cadre must:

- (1) Provide program oversight of the ARP SMS.
- (2) Coordinate the tasks of the ARP Safety Review Board.

⁵ The Airport Safety and Operations Division (AAS-300) will continue to hold responsibility for and serve as point of contact on <u>Part 139</u> SMS (external SMS).

(3) Oversee a hazard tracking system for ARP employees to enter hazards and mitigations developed through ARP-led SAs. This includes facilitating access and use of HIRMT and any other FAA equivalent hazard tracking tools.

(4) Assess relevant safety data from agency safety databases, including the hazard tracking system, to draw conclusions about the effectiveness of SMS policies, procedures, or results and to assess the effectiveness of mitigations used in ARP-led SAs.

(5) Oversee the ARP employee safety reporting system through which personnel can confidentially report safety issues, including hazards, concerns, and incidents that affect operational safety, and propose safety solutions or improvements. The Safety Management Cadre may work with other LOBs to monitor cross-LOB hazards through the using HIRMT.

(6) Oversee SMS initial training (including resolving how to integrate SMS training with existing programmatic training).

- (7) Support SRM actions when asked.
- (8) Provide technical support to ARP offices.

(9) Conduct internal audits of HQ Divisions and Regional Airports Division Offices to ensure the compliance with ARP SMS and report findings to the ARP Safety Review Board.

(10) Develop SMS-related communications and policies.

(11) Coordinate with other LOBs to ensure ARP SMS policies and procedures are interoperable.

(12) Set up and chair the ARP SMS Working Group:

- (a) Working Group Charter.
 - (i) Provide working-level assessment of the ARP SMS.
 - (ii) Recommend SMS changes to AAS-1.
 - (iii) Help with updates to ARP SMS policies, procedures, and guidance.
 - (iv) Meet periodically via teleconference and, when feasible, in person.

(b) **Members.** The ARP SMS Working Group will include representatives from the following offices and groups:

- (i) Airport Safety and Operations Division (AAS-300) Chair.
- (ii) Safety Management Cadre.
- (iii) Airport Engineering Division (AAS-100).

- (iv) Airport Planning and Environmental Division (APP-400).
- (v) Regional SMS coordinators.

7-6. Office of Airport Planning and Programming (APP).

APP must:

a. Incorporate SMS requirements into policies, procedures, and guidance used to manage airport planning, environmental, and financial programs. APP coordinates these actions with AAS and Regional Division Directors.

b. Select an individual to serve as the APP point of contact for national SMS policy development and implementation (with a particular focus on SRM).

c. Support the Regional Offices in fulfilling all SMS responsibilities for APP programs and responsibilities as described in ARP supporting documents and this Order.

d. Take part in national-level SAs as needed (see paragraph 4-10).

e. Provide a SME in support of the in-residence SRM Practitioner Course.

7-7. Regional Offices.

Regional ADOs must incorporate SMS into their areas of responsibility. Regional Offices may further delegate this responsibility to ADOs where applicable. Regional Offices must:

a. Set up, take part in, or appoint ARP personnel to sit on SRM panels (ARP, ATO, AST, or AVS panels) as needed.

b. Escalate to the Safety Management Cadre, as soon as practical, situations when competing LOBs (e.g., ARP vs ATO) are convening an SRM panel for the same or similar hazard(s).

c. Ensure personnel selected to participate on SRM panels complete the available SMS Electronic Learning Management System (eLMS) course.

d. Review SRM documentation for compliance with SRM policies.

e. Work with the Safety Management Cadre to address the findings of internal evaluations and audits.

f. Appoint a Regional SMS coordinator who:

(1) Reviews requests for ARP participation on SRM panels. Requests may come from ATO, AVS, AST, ARP HQ Offices, or airport sponsors.

(2) In coordination with ADO and Regional program offices, recommends participants for SRM panels to panel facilitators.

(3) Through close coordination with the Regional Branch offices and ADOs, alert regional management of known situations when two separate SRM panels; from competing LOBs (e.g., ARP vs ATO) are being considered for the same or similar hazard(s).

(4) Provides support to Regional Offices and ADOs as needed in carrying out their SMS responsibilities.

(5) Works closely with the Safety Management Cadre and provide support to AAS by ensuring data developed through the SMS is entered, tracked, and analyzed.

(6) Serves as the point of contact for Safety Assurance and other regional SMS issues.

(7) Uploads hazards, any required mitigations identified by regional or ADO SAs into the hazard tracking system or HIRMT, or other tracking systems available to ARP.

(8) Provides the Safety Management Cadre, when requested, the number of SRM panels convened and overall results by region according to large, medium, and small hub airports.

(9) Coordinates Regional recommendations for improvements to SMS policies, procedures, and guidance and presents them to the Safety Management Cadre.

(10) Represents the Region in the ARP SMS Working Group as requested by the Safety Management Cadre.

(11) Assists SRM panel facilitators, as necessary, with ATO, AST, and AVS to get the support needed for conducting ARP-led SRM panels.

(12) Participate in at least one SRM panel every two years. Even though ARP panels are preferred to meet this requirement, it can include participation on other LOBs' SRM panels.

7-8. ARP Employees.

All ARP employees play a role in ensuring the national system of airports is safe. Some ARP employees will have prominent roles in the ARP SMS. Employees with prominent or minor roles in ARP SMS can voluntarily report safety issues or concerns using the AVRS. Those ARP employees with a SMS prominent role have a responsibility to ensure system safety and are responsible for understanding ARP's SMS requirements. ARP employees with prominent SMS roles will:

- a. Comply with all terms of the ARP SMS.
- b. Complete the eLMS SMS Overview course, when required.

c. Participate as SMEs, as needed, on SRM panels formed by ARP or other FAA LOBs. More than one ARP employee may need to serve on a given panel to make certain all ARP

interests are represented (for example, planning, certification, environmental). While representing ARP on an SRM panel, the employee must:

(1) Ensure that hazards and effects are properly identified and mitigated in SRM documentation, based on ARP regulations, standards, policies, procedures, and guidance.

(2) Review SAs, based on the project or situation under review, to ensure they properly document the processes used, hazards identified, and risks analyzed. This review does not amount to acceptance of the SA.

d. Begin SAs when initiating approvals or changes to standards based on the trigger that caused the SA.

7-9. Other FAA LOBs and Offices.

a. **Background.** The goal of ARP's SRM is to identify hazards and safety concerns early in the planning phase of airport projects and when developing airport-related standards. This will involve a formalized safety assessment during the design stage and/or prior to reviewing any Construction Safety Phasing Plans to ensure hazards are eliminated or mitigated to an acceptable level before large investments are made. ARP requests ATO, AVS, and AST involvement in ARP SRM panels when there could be an impact to ATO, AST, or AVS operations or procedures.⁶ Panels would be formed to identify and assess hazards for individual airport projects or for the development of national airport standards. Such requests for participation may extend to other FAA offices as needed.

b. Air Traffic Organization. Per Order JO 7210.3, *Facility Operation and Administration*, and FAA Order JO 1000.37, *Air Traffic Organization Safety Management System*, to the extent feasible, to support ARP SMS criteria, ARP requests ATO:

(1) Increase communication with ARP and collaborate on safety concerns shared by their respective Safety Management Systems.

(2) When resources are available, participate⁷ in ARP-led SRM panels so hazards are identified and eliminated or mitigated during the design. ATO panel participation means acceptance or registering of any dissensions of results from any ARP panel or SRM activities. ARP may request participation as follows:

(a) During the early design, planning or environmental stage (as applicable).

⁶ The rate and levels of participation from other LOBs are described in the ARP SMS Desk Reference and/or specific Standard Operating Procedures (SOPs).

⁷ Participation can include reviewing ARP SRM documentation, being a panel member, or acting as a signatory on ARP SRM panels.

(b) During engineering design for complex projects or if there are material changes from the planning stage.

(c) During review of the Construction Safety and Phasing Plan.

(d) As requested by ARP for the review of Modifications of Standards or the development or revision of national standards.

(3) To the extent possible, coordinate for ARP participation in all ATO panels involving construction activities.

(a) ARP approval is required prior to acceptance or implementation of changes in an ATO panel Safety Requirement if said changes impact/involve ARP policies, procedures, and operations⁸.

(4) Provide timely and complete response (in accordance with Order JO 7400.2, *Procedures for Handling Airspace Matters*) to ARP inquiries and Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) coordination requests.

<u>Table 7-1</u> provides examples of some expectations of ATO Service Units taking part in the ARP SMS.

⁸ For National NAS changes, coordinate with ARP Headquarters Offices. For all other changes, coordinate with ARP Regional Offices.

Fask/Office Air Traffic Services		ATO – Technic Operati	cal ions	ATO – Flight Program Operations	ATO – Safety Services				
	ATCT/FCT Facilities*	HQ Offices	En Route and Oceanic Operations	Service Area	HQ Offices		Regional Runway Safety Offices	HQ Runway Safety Office	Safety Management Systems Office
Participate in ARP-led SRM panels for airport projects or modifications of standards	x			x		x	x		
Participate in ARP-led SRM panels for changes to airport standards		x	x		x	x		x	
Develop guidance for Air Traffic Service Units and Offices about participation on ARP-led SRM panels									x
All other ATO offices not spe applicable. ATO panel partici	cifically r pation m	eferen leans a	ced in th	is chart	will sup gisterin	port ARP-led g of any disse	SRM pa	inels as	from

Table 7-1.	Examples	of ATO	Participation	with ARP	SMS
1 abic 7-1.	Examples	011110	1 al ucipation		DIVID

*Airport Traffic Control Tower and Federal Contract Tower facilities.

any ARP panel or SRM activities. This list is not all inclusive.

c. Aviation Safety Organization (AVS). To support the ARP SMS, ARP requests AVS:

(1) Increase communication with ARP and collaborate on safety concerns shared by the two safety management systems.

(2) Participate on ARP SRM panels so hazards are identified and eliminated or mitigated during the design. ARP will request participation as follows:

(a) Typically, during the planning or environmental stage.

(b) During engineering design only if there are material changes from the

planning stage.

(c) During review of the Construction Safety and Phasing Plan.

(d) As requested by ARP for the review of Modifications of Standards or the development or revision of national standards.

(3) Coordinate with ARP Regional Offices when scheduling AVS-led SRM panels for changes that will affect the airport or AVS operations or oversight.

(4) Collaborate with the ARP SMS Cadre and ARP Regional Offices to assist in obtaining the use of AVS-trained facilitators.

(5) Collaborate with the ARP SMS Cadre and ARP Regional Offices to align ARP SMS documentation with AVS documentation requirements when SRM panels are led by AVS.

(6) Coordinate with ARP Regional Offices to develop preventive and corrective actions for identified safety issues.

(7) Coordinate with ARP HQ Offices when scheduling AVS-led SRM panels for system-wide changes.

(8) Provide access to AVS hazard tracking software so ARP can conduct Safety Assurance to identify common safety issues that affect ARP.

(9) Provide timely responses to ARP inquiries and OE/AAA coordination requests.

Task/Office	Flight Sta	ndards	Accident Investigation and Prevention	
	District Offices (FSDOs)	HQ Offices	Safety Mgmt and Research Planning Division (AVP-300)	
Participate in ARP-led SRM panels for airport projects or modifications of standards	x			
Participate in ARP-led SRM panels for changes to airport standards		x		
Develop guidance for AVS Offices about participation on ARP SRM panels			X	

 Table 7-2. Examples of AVS Participation in ARP SMS

All other AVS offices not specifically referenced in this chart will support ARP-led SRM panels as needed. This list is not all inclusive.

d. **Commercial Space Organization (AST).** To support the ARP SMS, ARP requests AST:

(1) Collaborate on safety concerns shared by the two LOBs.

(2) Alert and invite ARP to any AST-led SRM panels associated with commercial space operations at particularly <u>Part 139</u> airports, as well as other NPIAS airports.

(3) Participate on ARP SRM panels, as required, so hazards are identified and eliminated or mitigated during the earliest stage of review. ARP will request participation as follows:

(a) Typically, during the planning or environmental stage.

(b) During engineering design only if there are material changes from the

planning stage.

(c) During review of the Construction Safety and Phasing Plan.

(d) As requested by ARP for the review of Modifications of Standards or the development or revision of national standards.

(4) Coordinate with ARP Regional Offices when scheduling AST-led SRM panels for changes that will affect airport or ARP operations or oversight.

(5) Collaborate with the ARP SMS Cadre and ARP Regional Offices to align ARP SMS documentation with AST documentation requirements when SRM panels are led by AST.

(6) Coordinate with ARP Regional Offices to develop preventive and corrective actions for identified safety issues.

(7) Coordinate with ARP HQ Offices when scheduling AST-led SRM panels for system-wide changes.

(8) Provide timely response to ARP inquiries and OE/AAA coordination requests.

7-10. Airport Sponsors.

a. Airport sponsors are considered the change agent or proponent for airport projects and are responsible for verifying coordination with affected stakeholders based on the triggering action. (See paragraph 4-3.) Therefore, airport sponsors will be expected to:

(1) Provide required planning data.

(2) Participate as requested in SRM panels.

(3) Sign the associated documentation and comply with any risk mitigation measures that may fall within their purview.

Note: Additional guidance on these processes can be found in the ARP SMS Desk Reference, which explains in greater detail eligible AIP funding for additional planning-related analysis.

b. Airport sponsors maintain operational responsibilities and the requirements to comply with applicable statutory and regulatory obligations, including applicable ACs, in accordance with existing AIP and PFC assurances. This includes:

(1) Requiring sponsors to prevent the establishment or creation of airport hazards.

(2) Preventing the sponsor from making or permitting changes or alterations that do not comply with the approved ALP and that might, in the opinion of the Secretary, adversely affect the safety, utility, or efficiency of the airport.

(3) Accessing applicable ACs, including (among others) the current version of AC 150/5370-2, *Operational Safety on Airports During Construction*.

c. Airport sponsors are expected to provide timely, complete, and accurate information necessary to enable the FAA to evaluate proposed changes to ALPs and Construction Safety Phasing Plans where required and must comply with any risk mitigation measures required by the FAA.

Appendix A. Glossary

Air Transportation System: Entirety of the aviation system, including the FAA; entities that design, manufacture, or operate aircraft or components of aircraft; training entities; people; infrastructure; and other systems and subsystems.

Aircraft Accident: As defined by National Transportation Safety Board (NTSB) Part 830, 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 until all such persons have disembarked and in which any person suffers death or serious injury or the aircraft receives substantial damage.

Aircraft Incident: As defined by NTSB Part 830, an occurrence other than an accident that is associated with the operation of an aircraft and that affects or could affect the safety of operations.

Airport Project: For purposes of this Order, defined as an airport construction project that affects the physical characteristics of the airport, ALP approvals, or review of Construction Safety Phasing Plans.

Approval: Formal act of approving a change sent by a requesting organization. Required before the proposed change is implemented.

Aviation Safety: The state of an aviation system or organization in which risks associated with aviation activities, related to, or in direct support of, the operation of aircraft, are reduced and controlled to an acceptable level.

Common Cause Failure: A failure that occurs when a single fault results in the corresponding failure of multiple system components or functions.

Construction Safety and Phasing Plan (CSPP): A document that outlines procedures, coordination, and control of safety issues during construction activity on an airport. Advisory Circular 150/5370-2, *Operational Safety on Airports During Construction*, lists the requirements for the CSPP. Other names for the CSPP are Construction Safety Plan, Safety Plan, and Change Proposal.

Control: Anything that mitigates the risk of a hazard's effect. Same as a safety requirement. All controls must be written in requirements language. There are three types of controls:

Validated: Unambiguous, correct, complete, and verifiable.

Verified: Objectively determined to meet the design solution.

Recommended: Has the potential to mitigate a hazard or risk but is not yet validated as part of the system or its requirements.

Credible: Refers to a specific system state and sequence of events supported by data and expert opinion that clearly describes the outcome. It implies that it is reasonable to expect the assumed combination of extreme conditions will occur within the operational lifetime of the system.

Hazard: Any existing or potential condition that can lead to injury, illness, or death to people; damage to or loss of a system, equipment, or property; or damage to the environment. A hazard is a condition that is a prerequisite of an accident or incident. A hazard might or might not result in a situation of high risk.

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

Material Change: Any change that in the opinion of the project manager could introduce new safety risks (that is, any change that is a result of the environmental or design process, alternative selection that changes the physical layout).

National Airspace System (NAS): The common network of U.S. airspace; air navigation facilities; equipment and services; airports or landing areas; aeronautical charts and information services; rules, regulations, and procedures; technical information; and labor and material. Includes system components shared with the military.

Project Proposal Summary: A clear, concise description of the airport and proposed change. Used by stakeholders and SRM panel members (if needed) to quickly understand relevant safety and operational factors.

Reasonable: Not extreme or excessive.

Risk: The composite of predicted severity and likelihood of the potential effect of a hazard in the worst credible system state. There are three types of risk:

Initial: The severity and likelihood of a hazard when it is first identified and assessed, including the effects of preexisting risk controls in the environment at that time. For safety issues, this represents the "do nothing" scenario. For changes, this represents the "before the change" scenario.

Current: The predicted severity and likelihood of a hazard at the current time. For both safety issues and changes, this is a snapshot of risk at the present moment.

Residual: The remaining risk that exists after all risk mitigations have been implemented or exhausted and all risk mitigations have been verified.

Risk Assessment: The process by which the results of risk analysis are used to make decisions. The process of combining the impacts of risk elements discovered in risk analysis and comparing them against some acceptability criteria. Risk assessment can include consolidating risks into risk sets that can be jointly mitigated and combined and then used in decision making.

Risk Mitigations: Anything that reduces or eliminates the risk of a hazard's effect. A control is the same as a safety requirement.

Safety Assessment (SA): A sequence of actions, ranging from project screening to holding a Safety Risk Management Panel, along with associated documentation, used by ARP to determine proper application of ARP SRM. The ARP Project Manager typically initiates the SA for

projects requiring an FAA approval action. A safety analysis and/or assessment is typically performed early in the planning process before preparing a draft Airport Layout Plan, but it does not include mitigations, and often makes recommendations for further safety analysis. It is not a full ATO-compliant Safety Risk Management document, but it supports the requirements whenever it is needed by ATO.

Safety Assessment Screening (SAS): An ARP-specified description of the safety analysis for a proposed action. It documents the evidence to support whether the proposed action is acceptable from a safety risk perspective. There are three versions of the SAS: one for Airport Planning and Development Projects, Modification of Standards⁹, and Airport Standards Development.

Safety Risk Management document: An ATO-specified description of the safety analysis for a given proposed change. It documents the evidence to support whether the proposed change to the system is acceptable from a safety risk perspective. SRM documents are maintained by the organization responsible for the change for the life cycle of the system or change.

Safety Risk Management Panel: A group of SMEs and stakeholders assembled to assess the safety risk associated with a change or safety issue. Applies SRM methodology to ensure hazards and unacceptable risk are identified and mitigated. Identifies methodology to ensure hazards and associated safety risk are tracked throughout its life cycle.

Severity: The consequence or impact of a hazard's effect or outcome in terms of degree of loss or harm. Severity is determined by the worst credible outcome.

Single Point Failure: An element of a system or operation for which no backup (i.e., redundancy) or alternative operational procedure exists.

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, equipment, information, procedures, facilities, services, and other support services.

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

Validation: The process of proving the functions, procedures, controls, and safety standards are correct and the right system is being built (that is, the requirements are unambiguous, correct, complete, and verifiable).

⁹ See FAA Order 5300.1, Modifications to Agency Airport Design, Construction, and Equipment Standards, at http://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/documentNumber/5300.1.

Appendix B. Airport Project Approvals Not Typically Requiring Safety Risk Management Panels

1. Administrative approvals such as the award of grants for planning studies, system plans, pavement management, environmental reviews, wildlife hazard assessment, or wildlife hazard management plans.

2. Purchase of mobile vehicles and equipment. This includes Aircraft Rescue and Fire Fighting (ARFF) vehicles, snow removal equipment, mobile ARFF training equipment, ARFF turn-out gear, handicap lift devices, passenger load bridges, low emission airport equipment (Voluntary Airport Low Emissions Program), driver increased vision equipment, mobile deicing equipment, friction measuring equipment, foreign object debris sweepers, and interactive training systems.

3. Airport Improvement Program grant for reimbursement of a completed project.

4. Land acquisition for any purpose. (Land acquisitions only results in a change in paperwork and names on a deed. The purpose of the land acquisition or use of acquired land may require further safety risk review.)

5. Residential and public building sound insulation.

6. Installation of landside or off-airport noise mitigation actions, in accordance with <u>Part</u> <u>150</u>, *Airport Noise Compatibility Planning*, such as land use controls, noise monitoring system or acoustical treatments.

7. Construction, rehabilitation, or change of any facility that is entirely outside the air operations area, does not involve any expansion of the facility envelope, and does not involve construction equipment, haul routes or placement of material in locations that require access to the air operations area, increase the facility envelope, or impact line-of-sight. Such facilities may include passenger terminals and parking or other structures. Project managers must examine such projects carefully (including construction logistics) to identify extraordinary circumstances that could trigger the need for a Safety Assessment.

8. Projects depicted on an Airport Layout Plan (ALP) that are not expected to be under construction within 15 years from the ALP approval date.

9. Approval of a Passenger Facility Charge for 'impose only'.

Appendix C. Safety Assessment Tables

Effect	Minimal	Minor	Maior	Hazardous	Catastrophic
On:	5	4	3	2	1
Airports	No damage to aircraft but minimal injury or discomfort of little consequence to passenger(s) or worker(s)	-Minimal damage to aircraft, or -Minor injury to passengers, or -Minimal unplanned airport operations limitations (i.e. taxiway closure), or -Minor incident involving the use of airport emergency procedures	-Major damage to aircraft and/or minor injury to passenger(s)/worker(s), or -Major unplanned disruption to airport operations, or -Serious incident, or -Deduction on the airport's ability to deal with adverse conditions	-Severe damage to aircraft and/or serious injury to passenger(s)/worker(s); or -Complete unplanned airport closure, or -Major unplanned operations limitations (i.e., runway closure), or -Major airport damage to equipment and facilities	-Complete loss of aircraft and/or facilities or fatal injury in passenger(s)/worker(s); or -Complete unplanned airport closure and destruction of critical facilities; or -Airport facilities and equipment destroyed
Services	A minimal reduction in ATC services CAT D runway incursion ¹ Proximity Event,	Low Risk Analysis Event severity, ³ two or fewer indicators fail CAT C runway incursion	Medium Risk Analysis Event severity, three indicators fail CAT B runway incursion	High Risk Analysis Event severity, four indicators fail CAT A runway incursion	Ground collision ⁵ Mid-air collision Controlled flight into terrain or obstacles
АТС	Operational Deviation, or measure of compliance greater than or equal to 66 percent ²				
Flying Public	Minimal injury or discomfort to persons on board	Physical discomfort to passenger(s) (e.g., extreme braking action, clear air turbulence causing unexpected movement of aircraft resulting in injuries to one or two passengers out of their seats) Minor injury to less than or equal to 10 percent of person on board ⁶	Physical distress to passengers (e.g., abrupt evasive action, severe turbulence causing unexpected aircraft movements) Minor injury to greater than 10 percent of persons on board	Serious injury to persons onboard ⁷	Fatal injuries to persons onboard ⁸
Flight Crew	Pilot is aware of traffic (identified by Traffic Collision Avoidance System traffic alert, issued by ATC, or observed by flight crew) in close enough proximity to require focused attention, but no action is required Pilot deviation ⁹ where loss of airborne separation falls within the same parameters of a Proximity Event or measure of compliance	Pilot deviation where loss of airborne separation falls within the same parameters of a low Risk Analysis Event severity Reduction of functional capability of aircraft, but overall safety not affected (e.g., normal procedures as per Airplane Flight Manuals) Circumstances requiring a flight crew to abort takeoff (rejected takeoff); however, the	Pilot deviation where loss of airborne separation falls within the same parameters of a medium Risk Analysis Event severity Reduction in safety margin or functional capability of the aircraft, requiring crew to follow abnormal procedures as per Airplane Flight Manuals Circumstances requiring a flight crew to reject landing (i.e., balked	Pilot deviation where loss of airborne separation falls within the same parameters of a high Risk Analysis Event severity Reduction in safety margin and functional capability of the aircraft requiring crew to follow emergency procedures as per Airplane Flight Manuals Near mid-air collision encounters with	Ground collision Mid-air collision Controlled flight into terrain or obstacles Hull loss to manned aircraft Failure conditions that would prevent continued safe flight and landing

Hazard Severity Classification

Effect On:	Minimal 5	Minor 4	Major 3	Hazardous 2	Catastrophic 1
	greater than or equal to 66 percent Circumstances requiring a flight crew to initiate a go-around	act of aborting takeoff does not degrade the aircraft performance capability Near mid-air collision encounters with separation greater than 500 feet ¹⁰	landing) at or near the runway threshold Circumstances requiring a flight crew to abort takeoff (i.e., rejected takeoff); the act of aborting takeoff degrades the aircraft performance capability Near mid-air collision encounters with separation less than 500 feet ¹⁰	separation less than 100 feet ¹⁰	
Unmanned Aircraft Svstems	Discomfort to those on the ground Loss of separation leading to a measure of compliance greater than or equal to 66 percent	Low Risk Analysis Event severity, two or fewer indicators fail Non-serious injury to three or fewer people on the ground	Medium Risk Analysis Event severity, three indicators fail Non-serious injury to more than three people on the ground A reduced ability of the crew to cope with adverse operating conditions to the extent that there would be a significant reduction in safety margins Manned aircraft making an evasive maneuver, but proximity from unmanned aircraft remains greater than 500 feet	High Risk Analysis Event severity, four indicators fail Incapacitation to unmanned aircraft system crew Proximity of less than 500 feet to a manned aircraft Serious injury to persons other than the unmanned aircraft System crew	A collision with a manned aircraft Fatality or fatal injury to persons other than the unmanned aircraft system crew

Notes:

- 1. Refer to the current version of FAA Order 7050.1, Runway Safety Program.
- 2. Proximity Events and Operational Deviations are no longer used to measure losses of separation, but they are applicable when validating old data. The minimal loss of standard separation is now represented as a measure of compliance of greater than or equal to 66 percent.
- 3. Risk Analysis Event severity indicators are as follows:
 - a. **Proximity.** Failure transition point of 50 percent of required separation or less.
 - b. **Rate of Closure.** Failure transition point greater than 205 knots or 2,000 feet per minute (consider both aspects and utilize the higher of the two if only one lies above the transition point).
 - c. ATC Mitigation. ATC able to implement separation actions in a timely manner
 - d. Pilot Mitigation. Pilot executed ATC mitigation in a timely manner.
- 4. An effect categorized as catastrophic is one that results in a fatality or fatal injury.
- 5. Ground Collision. An airplane on the ground collides with an object or person.
- 6. Minor Injury. Any injury that is neither fatal nor serious.
- 7. Serious Injury. Any injury that:
 - a. Requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received;
 - b. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
 - c. Causes severe hemorrhages, nerve, muscle, or tendon damage;
 - d. Involves any internal organ; or
 - e. Involves second- or third-degree burns, or any burns affecting more than five percent of the body's surface.

- 8. Fatal Injury. Any injury that results in death within 30 days of the accident.
- 9. Refer to FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting, for more information about pilot deviations.
- Near mid-air collision definitions are derived from FAA Order 8900.1, *Flight Standards Information Management System*, Volume 7, which defines the following categories: critical, potential, and low potential. Refer to Section 9 for the complete definitions of these categories.

	Airport Specific	Quantitative (ATC/Flight Procedures/Systems Engineering)	Domain-wide: NAS-wide, Terminal, or En route
A Frequent	Expected to occur more than once per week or every 2500 departures, whichever occurs sooner	(Probability) ≥ 1 per 1000	Equal to or more than once per week
B Probable	Expected to occur about once every month or 250,000 departures, whichever occurs sooner	1 per 1000 > (Probability) ≥ 1 per 100,000	Less than once per week and equal to more than once per three months
C Remote	Expected to occur about once every year or 2.5 million departures, whichever occurs sooner	1 per 100,000 > (Probability) ≥ 1 per 10,000,000	Less than once per three months and equal to more than once per three years
D Extremely Remote	Expected to occur once every 10-100 years or 25 million departures, whichever occurs sooner	1 per 10,000,000 > (Probability) ≥ 1 per 1,000,000,000	Less than once per three years and equal to or more than once per 30 years.
E Extremely Improbable	Expected to occur less than every 100 years	1 per 1,000,000,000 > (Probability) ≥ 1 per 10 ¹⁴	Less than once per 30 years

Likelihood Definitions

Note: A cutoff point of 10^{-14} was established to define the boundaries of credible events for the purpose of calculating likelihood.

Risk Matrix

High Risk – High risk is unacceptable within the ARP SMS. If a hazard presents a high initial risk, the proposal cannot be carried out unless hazards are further mitigated so risk is reduced to medium or low level and the ARP Safety Review Board recommends that ARP-1 approve the mitigations. Tracking and management of high-risk hazards and controls are required.

Medium Risk – Medium risk is acceptable within the ARP SMS. A medium risk is the minimum acceptable safety objective. With medium risk, the proposal may be carried out as long as the risk is tracked and managed.

Low Risk – Within the ARP SMS, low risk is the target. Low risk is acceptable without restriction. Low-risk hazards do not need to be actively managed but must be recorded in the SRM documentation.

Severity Likelihood	Minimal 5	Minor 4	Major 3	Hazardous 2	Catastrophic 1
Frequent A	[Green]	[Yellow]	[Red]	[Red]	[Red]
Probably B	[Green]	[Yellow]	[Red]	[Red]	[Red]
Remote C	[Green]	[Yellow]	[Yellow]	[Red]	[Red]
Extremely Remote D	[Green]	[Green]	[Yellow]	[Yellow]	[Red]
Extremely Improbably E	[Green]	[Green]	[Green]	[Yellow]	[Red] * [Yellow]

* High Risk with Single Point and/or Common Cause Failures

Key:

High Risk [Red] Medium Risk [Yellow] Low Risk [Green]

Appendix D. Safety Assessment Screening (SAS)

SAS-1: Airport Planning and Development Projects

- 1. ALP approvals (including any associated environmental review)
- 2. Airport construction

3. Other than physical construction changes which includes non-construction airport changes

U.S. Department of Transportation Federal Aviation Administration

FAA Form 5200-8, Safety Assessment Screening for Airport Planning and Development Projects (SAS-1)

ARP SMS ID:

1. Project Location
LOCID:
Airport Name:
Airport City, State:
Airport Sponsor Name:
Project Name & Description:
2. Safety Assessment Screening (SAS) – FAA Approval Action Type (Triggering Event)
A Safety Assessment (Form 5200-8, SAS-1) is necessary for these triggering event types. Choose all applicable triggering events that apply (Reference FAA Order 5200.11A Par. 4-3):
Airport Layout Plan

Airport construction coordination, action, and approval

Other airport changes not involving construction

ARP requires a Safety Assessment

Proceed to Item 3.

3. Safety Assessment (SA) – ARP System Safety Impact Checklist

Choose all that apply:

- None An SRM panel is *not* required. No further review is necessary. Proceed to Item 6.
- The Proposed action may increase aviation safety risks, with existing controls in place.
- The Proposed action may adversely affect aviation operations with existing controls in place.
- The Proposed action may pose an un-mitigatable effect on navigational aids.
- The Proposed action may impact TERPS surfaces.
- An aeronautical study (OE/AAA review) for this proposal indicates an objection to the proposal.
- Other safety impact (describe):

The Safety Impact Checklist indicates an SRM panel is warranted. Proceed to Item 4.

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4. Safety Risk Management Panel

Date:

Identify the required FAA approval level for Item 7 (Reference FAA Order 5200.11A Table 4-1). Attach copy of SRMP Report to this SAS-1 Form.

Highest Initial Risk Identified:	Low	🗌 Medium	🗌 High
Highest Residual Risk Identified:	Low	☐ Medium	🗌 High

Proceed to Item 5.

5. Airport Certification and Acceptance

As the airport sponsor or duly authorized representative, I hereby certify that I have reviewed and understand the Safety Assessment and Safety Risk Management processes and outcomes applied to this proposal and referenced in this Safety Assessment Screening form. I accept responsibility for the timely application of all mitigations measures identified in this assessment. I understand that the FAA considers acceptance of this assessment and its outcomes an obligation under Federal Grant assurances, regardless of FAA participation in the subject proposal. No measure contained in this assessment or its outcomes relieves the sponsor of its legal obligation under applicable FAA regulations and requirements.

Name			
Title:			
Signature:	Date:		

6. Aeronautical	Study	Data	
-----------------	-------	------	--

Aeronautical Study (NRA) Number(s):

Determination Letter Date(s):

Proceed to Item 7.

7. FAA SA / SRM Approval

The proposed action was reviewed with respect to known hazards and existing controls. Potential hazards were evaluated with appropriate FAA personnel, airport operations and other aviation officials with safety responsibilities. SRM activities, when conducted, identified and evaluated hazards using procedures and processes in accordance with FAA Order 5200-11A. Documentation of SA and SRM process, when applicable, are retained with the FAA approval action documentation. All measures ensure that the project will not increase risk to the National Airspace System during the project life cycle and after the change associated with the project is complete.

Name:		
Title:		
Signature:	Date:	

FAA Form 5200-8 (9/20) SUPERSEDES PREVIOUS EDITION

Instructions for FAA Form 5200-8 ARP Safety Assessment Screening for Airport Planning and Development Projects (SAS-1)

General

Use Form 5200-8 (SAS-1) to document the Safety Risk Management (SRM) process for airport planning and development projects. Consult the SAS-1 during the project life cycle as needed to determine and document Safety Assessment (SA) and Safety Risk Management Panel (SRMP) requirements.

Use the SAS-1 form for:

- Airport Layout Plan (ALP) approvals.
- Airport construction project review, coordination, action and/or approval for Federally obligated airports. This includes review of Construction Safety and Phasing Plans (CSPP) in accordance with Advisory Circular 150/5370-2, Operational Safety on Airports During Construction.
- Other than physical construction changes, which includes non-construction airport changes, including runway and taxiway designations, and changes to airfield marking, lighting, or signage. These reviews are required when the change is not part of a draft ALP submittal.
- Any project requiring an SA as determined by FAA Airports (ARP).

These instructions may be supplemented or replaced by program guidance for the specific triggering event. For example, more detailed instructions for completing the SAS for ALP approvals may be included in AC 150/5070-6, Airport Master Plans, or FAA Order 5100.38, Airport Improvement Program Handbook.

Purpose

A completed and signed SAS-1 documents the FAA (ARP Internal SMS SRM process. This documentation helps ensure that ARP program decisions (identified above as triggering events) properly consider safety. It will also help staff determine when an SRM panel is required.

Timing

The SAS-1 should be completed prior to the final ARP action (approval, determination, etc.) for the triggering event. An Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) airspace study, if applicable, should be completed prior to completion of the SAS-1. When OE/AAA is used for coordination, then the SAS-1 needs to be completed prior to approval in OE/AAA (i.e. ALP and CSPP).

Availability

This form is available electronically at http://www.faa.gov/airports/resources/forms/.

Data Block Instructions

Block 1. Project Information. Identify the project location, airport, and the airport sponsor responsible for executing the project.

ARP SMS ID is a unique number that identifies the proposed action. It will be used to identify and coordinate the SAS-1 and for future reference. Do not use the AIP grant

number, OE/AAA Non-rule Making Airport (NRA) case number, or any other existing number. Consult program guidance, regional SMS Coordinator, or the ARP Safety Management Cadre for specific instructions on assigning the Project ID. Project ID is assigned based on Fiscal Year, Region, and assigned sequence number (2019AGLXXXX).

Project Name, Description: Provide a general project type and location on the airfield. Reference detailed project information by entering "See aeronautical study information" to reference the data entered in Block 6, or an AIP grant number (for federally funded projects).

- Block 2. Safety Assessment Screening FAA Approval Action Type. Select the triggering event(s) for the proposed action, indicating why an SA is required.
 - If no triggering event applies to the project, STOP. You do NOT need to fill out an SAS-1 Form. See paragraph <u>4-3</u> and <u>Appendix B</u>.
 - *If a triggering event applies, check the appropriate box and* continue with the SA. Proceed to Block 3.
- Block 3. Safety Assessment ARP System Safety Impact Checklist.
 - If the NONE box is checked, an SRM Panel is not required. Proceed to Block 6.
 - *If any boxes are checked,* an SRM panel is warranted. Consult ARP SOP 4.0 and the ARP SMS Desk Reference for convening, conducting, and documenting an SRM Panel. After the SRM Panel is conducted, proceed to Block 4.
- **Block 4.** Safety Risk Management Panel. Identify the required ARP approval level for Block 7 by indicating the Initial and Residual Risk levels identified by the SRM Panel.
 - a. See 5200.11A, <u>Table 4-1</u>.
 - b. Attach a copy of the SRM Panel report, including the panel member sign-in sheet and hazard assessment materials.
- **Block 5. Airport Certification and Acceptance.** If an SRM Panel is convened, the airport sponsor must sign Block 5. Airport sponsors have direct control for controlling hazards and mitigating risks associated with airport operations. Airport sponsor signature indicates acceptance of the panel results contained in the SRM Panel report and any associated mitigation actions or plans.
- **Block 6.** Aeronautical Study Data. The aeronautical study provides the review and determination documentation for the proposal.

Enter the study data from the Internet Obstruction External User Guide Evaluation / Airport Airspace Analysis (iOEAAA):

- Aeronautical study (NRA case) number(s).
- FAA Determination Letter date.
- **Block 7. FAA SA / SRM Approval.** An FAA ARP representative signs the SAS. FAA approval represents an endorsement that all identified hazards have been considered and that risk levels will remain acceptable provided that risk mitigations remain in-place. Obtain the appropriate signature based on the approval level determined in Block 4.

SAS-2: ADIP Modification of Standards (MOS) Tool

U.S. Department of Trans Federal Aviation Admini	portation stration			
Safety Ass	essment Scree	ning for Modifi	cation to Standards (S	SAS-2)
. Project Location				
LOCID:			SMS ID:	
Airport:				
City:				
State:				
Sponsor:				
Service level:				
CFR 139 date:				
CFR 139 type:				
AC Number	Chantor	Daragraphi	Page Number	
AC Number.	Chapter.	Paragraph.	Page Number.	
Standards Type				
This modification appl Construction, and Equ	lies only to the follow uipment Standards),	ing (See Order 5300 Choose all that apply	.1, Modification to Agency Air y:	port Design,
Dimensional sta	andards for Runway	Safety Area (AC 150	/5300-13, paragraph 305)	
Regional or stat	te standards			
🗌 Material standa	rds			
Construction sta	andards			
. Proposal Screening	g			
A preliminary ar	nalysis indicates that	an SRM review is re	equired. (Complete pages 2 ar	nd 3)
🗌 The proposal do	ces not require furthe	er SRM review. (Disc	ard pages 2 and 3)	

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5. Justification
(Include economy, durability, and aviation demand to be satisfied by the proposed modification)
Regional Review:
AAS Review:
6. Was the proposal reviewed by OE/AAA?
Yes No - Skip to block 7 (Review in OE/AAA is required whenever the proposed MOS involves fixed or movable objects, or if airfield layout or dimensional standards are impacted.)
Case Number (Ex: 2008-ASW-1234-NRA):
Determination Date:
OE/AAA review comments are attached
OE/AAA review indicates an objection to the proposal
7. A review of the proposal indicates the following:
The OF/AAA review indicates that an SRM panel is required
\square A review of the justification indicates that an SRM panel is required
An SRM panel is not required. No further review is necessary. Complete and sign block 7. discard
page 3.
8. SRM Panel and Findings
Report date:
9. Initial Risk Determination
Low Initial Risk. Attach supporting documentation.
Medium Initial Risk. Attach detailed explanation of hazards.
High Initial Risk. Attach detailed explanation of hazards. Requires review by the ARP Safety Review Board.
10. Final Risk Determination
Attach initial risk supporting document.
Medium Initial Risk. Attach detailed explanation of mitigation measures, including NOTAM requirements.
requirements.
High Initial Risk. The project proposal with risk mitigation in place is unacceptable.

FAA Form 5200-9 (8/20) SUPERSEDES PREVIOUS EDITION

11. Safety Risk Management (SRM) Panel Members and Certification

We certify that we have reviewed the project documentation and have fully considered the potential hazards (and any proposed mitigation measures) before reaching this determination. Dissenting opinions concerning the determination are included in the report.

FAA Office:	
Name:	
Title:	
Signature:	

12. Airport Sponsor Certification and Acceptance

As a duly authorized representative of the sponsor of the airport identified above, I hereby certify that I have reviewed and understand the hazards and mitigation measures identified in the attached documentation. I further certify that I understand it is our legal duty, as sponsor, to ensure that any and all airport-related mitigation measures are fulfilled and documented in a timely manner. Any such commitments on our part represent an obligation under our Federal grant assurances, regardless of whether the FAA participates in the funding of any part of the Proposed Action. Nothing in the FAA's review may be deemed as relieving the sponsor of its legal obligations as owner and operator of the airport.

Accept

13. FAA Safety Risk Management Approval

Hazards were identified and analyzed using standard procedures and processes in accordance with FAA Order 5200.11A. Mitigation measures, including draft NOTAM requirements, if necessary, are attached and are included with the formal FAA project approval action. These measures will help ensure safety levels are maintained at acceptable levels both during and after the proposed construction and non-construction airport changes.

Accept

Instructions for FAA Form 5200-9 ARP Safety Assessment Screening for Modification of Standards (SAS-2)

General

Use Form 5200-9 (SAS-2) to document the Safety Risk Management (SRM) process for Modification Of Standards (MOS) approvals. The SAS should be completed and signed as part of the workflow in the Airport Data and Information Portal (ADIP) MOS Tool. ADO completes SAS-2 and forwards to the Region. The Region accomplishes coordination with HQ for final disposition. Regardless of whether the Region or HQ is final approving authority, the SAS-2 is completed by the ADO. Access the tool and instructions under quick links online help at <u>https://adip.faa.gov/agis/</u>. These instructions may be supplemented or replaced by program guidance for the Modification of Standards process. See FAA Order 5300.1 (latest version), Modifications to Agency Airport Design, Construction, and Equipment Standards.

Purpose

A completed SAS-2 documents the SRM process for the FAA Office of the Associate Administrator for Airports (ARP). It is intended to ensure that ARP program decisions, including final approval of MOS, properly consider safety. It will also help staff determine when a project requires an SRM panel.

Timing

Complete the SAS-2 in the ADIP MOS Tool as part of the MOS workflow. ADIP will store Safety Assessment data. Hard copies are optional. Note: Completion of the SAS-2 includes uploading the SAS-2 document or completing the SAS-2 form within the MOS project.

Availability

This form is available electronically only through the ADIP MOS Tool at <u>https://adip.faa.gov/agis/</u>.

SAS-3: Airport Standards Development

U.S. Department of Transportation Federal Aviation Administration

FAA Form 5200-10, Safety Assessment Screening for Airport Standards Development (SAS-3)

SMS ID:

1. Advisory Circular

2. Standards Included in the AC (List by paragraph)

3. ARP System	n Safety Impact Checklist (Choose all that apply)			
The proposed standards may deviate from applicable FAA standards.				
The prop	The proposed standards may affect aviation safety.			
The prop	The proposed standards may impact aviation operations.			
The prop	osed standards may affect navigational aids.			
The prop	osed standards may impact TERPS surfaces.			
Other sa	fety impact:			
4. Proposed St	tandard Screening			
The Safe	ety Impact Checklist indicates that an SRM panel is required. (Complete Sec	ction 2.)		
The Safe	ty Impact Checklist indicates that an SRM panel is not required. (Discard S	section 2.)		
Prepared by:				
Name:	Signature:			
Office:				
Title:	Date:			
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Section 2: Airports Safety Risk Management (SRM)				
	SMS ID:			
5. Was the proposal reviewed internally within FAA?				
☐ Yes (Enter the clearance record date and check first box below)	☐ No (Skip to item 6)			
Clearance Record Date:				
Review comments and adjudication are attached.				
Review indicates an objection to the proposal.				
6. SRM Panel and Findings				
Report date: Report is attached.				
7. Initial Risk Determination				
Low Initial Risk. Attach supporting documentation.				
Medium Initial Risk. Attach detailed explanation of hazards.				
High Initial Risk. Attach detailed explanation of hazards. (Requires review by the ARP Safety Review Board.)				
8. Final Risk Determination				
Low Risk. Attach detailed explanation of mitigation measures.				
Medium Risk. Attach detailed explanation of mitigation measures.				

9. SRM Panel Members and Certification

We certify that we have reviewed the project documentation and have fully considered the potential hazards (and any proposed mitigation measures) before reaching this determination. Dissenting opinions concerning the determination are included in the report.

FAA Office	Name and Title	Date	Signature

FAA Form 5200-10 (9/20) SUPERSEDES PREVIOUS EDITION

FAA Office	Name and Title	Date	Signature

FAA Form 5200-10 (9/20) SUPERSEDES PREVIOUS EDITION

10. FAA SRM Approval

Hazards were identified and analyzed using standard procedures and processes in accordance with FAA Order 5200.11A. Mitigation measures, if necessary, are attached and are included with the formal FAA project approval action. These measures will help ensure safety levels are maintained at acceptable levels both during and after the proposed construction and non-construction airport changes.

Name:		
Title:		
Signature:	Date:	

FAA Form 5200-10 (9/20) SUPERSEDES PREVIOUS EDITION

Instructions for FAA Form 5200-10 ARP Safety Assessment Screening for Airport Standards Development (SAS-3)

General

Use Form 5200-10 (SAS-3) to document the Safety Risk Management (SRM) process for new and revised airport standards. The SAS should be completed and signed prior to final FAA approval for publication of the standard.

These instructions may be supplemented or replaced by program guidance for the development of new and revised airport standards.

Purpose

A completed and signed SAS-3 documents the SRM process for the FAA Office of the Associate Administrator for Airports (ARP). This documentation helps ensure that ARP program decisions, including final approval of new and revised airport standards, properly consider safety. It will also help staff determine when a proposed standard requires an SRM panel.

Timing

The SAS-3 should be completed prior to the final standard approval. An internal FAA clearance record, if applicable, should be completed prior to completion of the SAS.

Availability

This form is available from the Office of Airports, Safety and Standards Branch, AAS-300.

Data Block Instructions

Block 1. Advisory Circular (AC). Enter the name and number of the Advisory Circular(s), which will include the new/revised standard.

Project ID is a unique number that identifies the proposed standard(s) (block 2). It will be used to identify and coordinate the SAS and for future reference. Consult program guidance, if available, or ARP Safety Management Cadre for specific instructions on assigning the Project ID. Project ID is assigned based on Fiscal Year, Region, and assigned sequence number (2019AWAXXXX).

- **Block 2.** Standards included in the AC. List each standard under consideration by paragraph and provide a sufficient description to identify the purpose of the standard. Be as specific as possible about the airfield components and systems affected by the proposed standard.
- Block 3. Safety Impact Checklist. Select all items that apply. Supplemental program guidance (if available) may provide additional instructions for completing the Safety Impact Checklist.
- Block 4. Proposed Standard Screening.
 - a. **If any items in Block 3 are checked**, then select the safety impact checklist indicating that an SRM panel is required. Complete section 2.
 - b. **If no Block 3 items are checked**, then no further SRM review is required. Discard section 2, and complete and sign Block 4. The form should be signed by
the individual responsible for writing the new or revised standard, unless otherwise required by supplemental program guidance.

- Block 5. FAA Internal Review. Complete each line item as follows:
 - a. Indicate whether a clearance record has been completed. If yes, enter the clearance record date and check item C. If no, proceed to Block 6.
 - b. It may be useful to attach the clearance record to expedite review and approval of the proposed standard.
 - c. Select item D if the review resulted in an objection or non-concurrence.
- **Block 6.** Add the date of the final SRM panel report and indicate if the report is attached to the SAS.
- **Block 7.** Indicate the SRM Panel's initial risk determination. This is the unmitigated risk associated with the proposed standard. Select that highest initial risk found for each of the hazards identified by the panel. Use <u>Appendix C</u> to select the appropriate initial risk level.
- **Block 8.** Indicate the SRM Panel's Residual Final Risk determination. This is the estimated residual risk after all mitigations proposed by the SRM panel are in-place. Use <u>Appendix C</u> to select the appropriate final risk level.
- **Block 9.** Have each panel member certify that all appropriate hazards are identified and that reasonable mitigation measures were considered by the panel. This certification is **not** an agreement to the findings of the panel (risk level), but an indication that each panel member believes that the panel performed a thorough job of identifying hazards and considering appropriate mitigations.
- **Block 10.** Obtain the correct signature. FAA approval represents an endorsement that all hazards have been considered and that risk levels will remain acceptable provided that risk mitigations remain in-place. The FAA signature level for approval is determined by the panel's initial risk level findings as follows:
 - a. High Initial Risk. ARP Safety Review Board review and ARP-1 approval.
 - b. **Medium Initial Risk**. ARP Safety and Standards (AAS-1) or Planning and Programming (APP-1) manager with ever is responsible for the standard.
 - c. **Low Initial Risk**. ARP headquarters division manager with authority over the change (i.e. AAS-100, AAS-300, APP-400, or APP-500).

ARP SMS Curriculum MatrixCourse Name	Objectives	Prerequisites	Medium	Recommended Audience
OVERVIEW OF SAFETY MANAGEMENT SYSTEM (SMS) Course Number (30200994)	Define SMS		eLMS course	All ARP employees
	List four components of SMS			Employees from other LOBs
	Define positive safety culture			
	Identify the benefits of an SMS			
SRM PRACTITIONER COURSE FAA AIRPORTS (ARP) Course Number (FAA06000006)	Define SRM	SMS Overview	Classroom Instructor-led Training	All ARP employees required to participate in or facilitate SRM Panels
	Define SRMD			
	Define Preliminary Hazard List (PHL)			
	Define Preliminary Hazard Analysis (PHA)			
	Conduct a Preliminary Hazard Analysis Case Studies and Student Participation Exercises			
SAFETY RISK MANAGEMENT (SRM) PANEL FACILITATION	Facilitate an SRM panel	SMS Overview	eLMS course	Facilitators
		SRM Practitioner Course	ARP employees responsible for	
Course Number (30201003)				facilitators

Appendix E. ARP SMS Curriculum Matrix