



**FAA
Airports**

ARP SOP 4.00

Effective Date:

September 1, 2014

Standard Operating Procedure (SOP)

Safety Risk Management (SRM) Under the FAA Office of Airports Safety Management System (SMS)

A. PURPOSE

This SOP establishes uniform procedures for conducting the Safety Risk Management (SRM) component of the ARP Safety Management System (SMS) for certain ARP approval actions.

B. SCOPE

This SOP applies to ARP approval of certain Airport Sponsor-generated changes and documents as required by Paragraph 4-3 of FAA Order 5200.11, FAA Airports (ARP) Safety Management System (SMS). ARP approval for these actions can only be given after completing the Safety Assessment (SA) in accordance with the SRM component. For 14 CFR Part 150 Noise Compatibility Program measures, the proposed measures may only be implemented after completion of a Safety Assessment (SA). See FAA Order 5200.11, para. 4-3d.

C. CANCELLATION

This SOP does not cancel a previous version.

D. LIMITATIONS OF THIS SOP

The following limitations apply to this SOP:

1. The SA procedures outlined in this SOP address steps necessary to comply with Order 5200.11 (latest edition with changes) for conducting a SA before granting certain FAA approvals. Refer to Order 5200.11 for the SA Applicability and FAA approval actions that trigger the SRM/SA requirement.
2. This SOP addresses procedures for complying with existing FAA policy. This SOP does not establish or modify FAA policy.

E. APPLICABLE REGULATIONS, POLICY, AND GUIDANCE

Requirements identified within this SOP originate in or are further described in various FAA publications including Orders, regulations, and Advisory Circulars. See the current versions.

1. [FAA Order 5200.11, FAA Airports \(ARP\) Safety Management System \(SMS\)](#).
2. [Office of Airports Safety Management System \(SMS\) Desk Reference](#).
3. Regional policies and procedures memorandums clarifying unique SMS coordination, signature, and communication processes within the Region.

F. SMS AND SRM REQUIREMENTS AND OBJECTIVES

SMS is a “system” that includes several components; however, this SOP focuses on the Safety Risk Management (SRM) component of the ARP SMS. At the Regional and Airports District Office level, most of the SMS-related work will involve the SRM component.

G. IMPLEMENTATION

This SOP summarizes the steps required to implement the SRM component of the ARP SMS as required by FAA Order 5200.11.

H. DISTRIBUTION

This SOP is distributed to the FAA Airports Organization (ARP) and all interested parties. The SOP will be available electronically on the Airports section of the FAA website.

I. CHANGE TABLE

Date of Change	SOP Version	Page Changed	Reason for Change



Michael J. O'Donnell
Director, Office of Airport Safety and Standards

8/1/14

Date



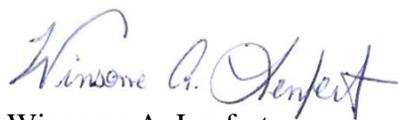
Byron K. Huffman
Manager, Alaskan Region Airports Division



Sarah P. Dalton
Manager, Northwest Mountain Region
Airports Division



Jim A. Johnson
Manager, Central Region Airports Division



Winsome A. Lenfert
Manager, Southern Region Airports Division



Debbie Roth
Manager, Eastern Region Airports Division



Kelvin L. Solco
Manager, Southwest Region Airports Division



Susan Mowery-Schalk
Manager, Great Lakes Region Airports
Division



Mark A. McClardy
Manager, Western-Pacific Region Airports
Division



Mary T. Walsh
Manager, New England Region Airports
Division

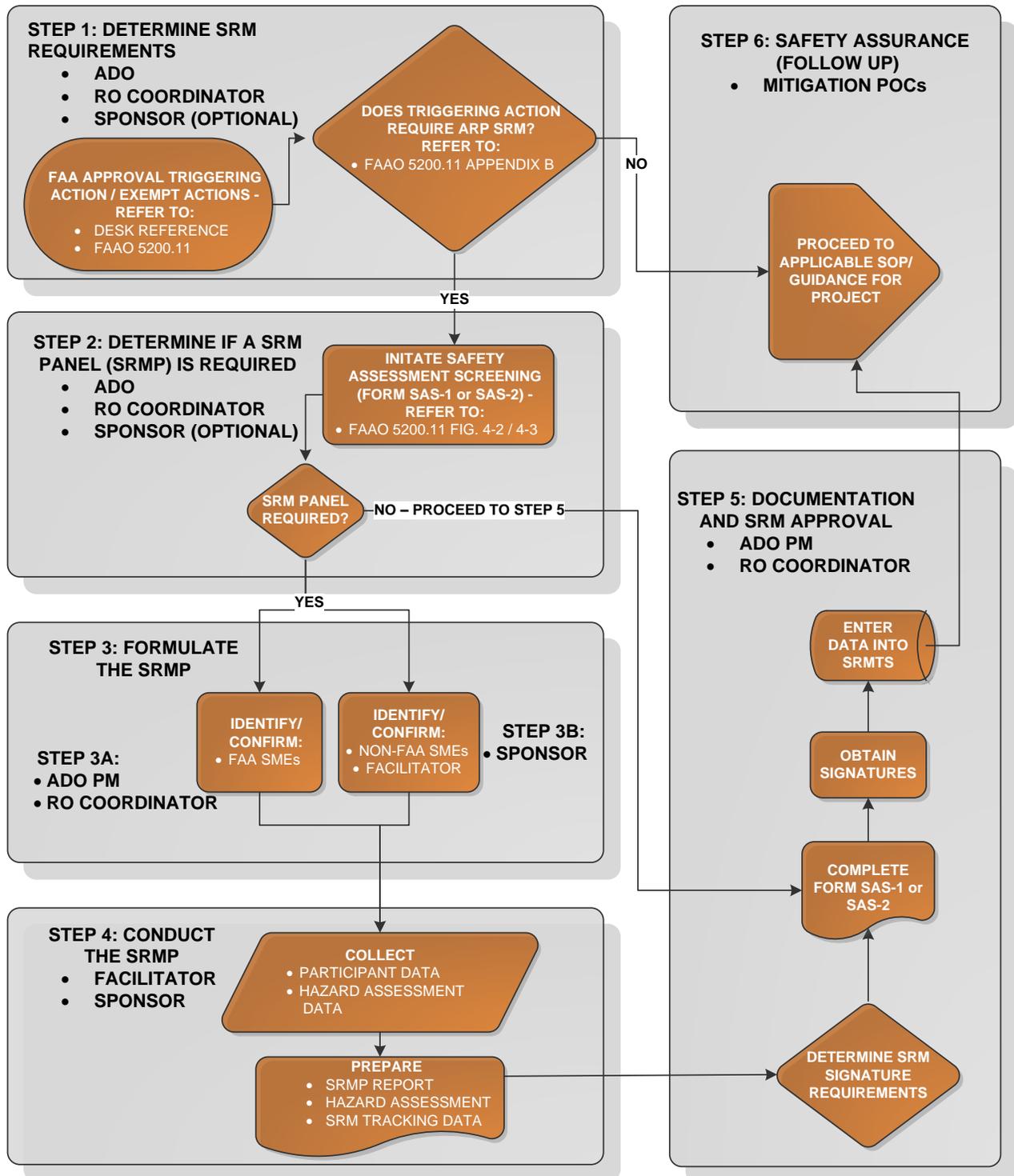
Table of Contents

1. Key ARP SA Understandings	1
2. The ARP SA Process.....	3
2.1. Step 1: Determine SA Requirements.....	3
2.1.1. General	3
2.1.2. References.....	3
2.1.3. Prerequisites.....	3
2.1.4. Required Steps	3
2.1.5. Output/Products	3
2.2. Step 2: Determine if an SRM Panel (SRMP) Is Required	3
2.2.1. General	3
2.2.2. References.....	4
2.2.3. Prerequisites.....	4
2.2.4. Required Steps	4
2.2.5. Output/Products	4
2.3. Step 3: Formulate the SRMP.....	4
2.3.1. General	4
2.3.2. References.....	5
2.3.3. Prerequisites.....	5
2.3.4. Required Steps	5
2.3.5. Output/Products	6
2.4. Step 4: Conduct the SRMP	6
2.4.1. General	6
2.4.2. References.....	6
2.4.3. Prerequisites.....	6
2.4.4. Required Steps	6
2.4.5. Output/Products	8
2.5. Step 5: Documentation and SA Approval.....	8
2.5.1. General	8
2.5.2. References.....	8
2.5.3. Prerequisites.....	8
2.5.4. Required Steps	8
2.5.5. Output/Products	9
2.6. Step 6: Safety Assurance	9
2.6.1. General	9
2.6.2. Reference	9
2.6.3. Entrance Criteria	9
2.6.4. Required Steps	9
2.6.5. Output/Products	10
3. Availability of ARP SMS/SRM Training.....	10

1. KEY ARP SA UNDERSTANDINGS

1. This document uses the term “ARP Project Manager” to refer to the ARP planner, engineer, or environmental specialist who is assigned responsibility for the ARP approval action.
2. This document uses the term “ARP approval action” to mean the FAA approval of certain Sponsor requests that trigger the requirement to initiate the SA process. See Order 5200.11, Paragraphs 1-4.a. and 4-3, for a list of ARP approvals that trigger SA.
3. The ARP SRM review and resulting document(s) are referred to as the Safety Assessment (SA).
4. Only certain ARP approval actions require SA. These ARP approval actions are listed in Section 4-3 of Order 5200.11. If there is no ARP approval action required, then SA is not required.
5. Certain ARP approval actions will not result in an increased risk and typically do not require SA. Consult FAA Order 5200.11, Appendix B, for a list of these actions.
6. Currently, ARP SA is not required for all airports. Refer to Order 5200.11, including any subsequent changes, for information on ARP Applicability to different airports.
7. ARP SA is not directly connected to any Airport Improvement Program (AIP) project eligibility determination or grant action.
8. The Region or Airports District Office (ADO) may include an AIP grant special condition to require Sponsors to participate in the SA process, to implement risk mitigation measures, and to track and report on risk mitigation on certain projects. (See the ARP SMS Desk Reference, Section 5.8)
9. ARP SRM review and approval is an internal ARP requirement, but the Airport Sponsor may be required to participate. (See the ARP SMS Desk Reference, Sections 4.3 and 7.1, for more information on the Sponsor’s role in SA.)
10. When ARP SA is required, an ARP manager must sign the final approval document. (See Order 5200.11, Table 4-1, for the necessary ARP signature level.)
11. This SOP only discusses Safety Assessment Screening for Projects (SAS-1) and Modification of Standards (SAS-2). It does not discuss Safety Assessment Screening for Standards (SAS-3), which FAA Headquarters uses for internal FAA proposals for new or revised Advisory Circulars.
12. Completed Safety Assessments should be filed at the Region or ADO with the ARP approval action that triggers the SA requirement and on the national shared drive located in the national shared “Q” drive.

Figure 1. The ARP SA Process Flowchart



2. THE ARP SA PROCESS

2.1. Step 1: Determine SA Requirements

2.1.1. General

The triggering actions and the airport classifications where SA is required are defined in Order 5200.11, Chapters 1 and 4. (Not all ARP approval actions require SA.)

2.1.2. References

- Order 5200.11, (latest version incorporating changes), Chapter 4, Appendix B and Appendix D
- ARP SMS Desk Reference, Section 3

2.1.3. Prerequisites

The ARP Project Manager should evaluate the airport sponsor's requested approval action for SMS applicability and complete the applicable Safety Assessment Screening (SAS) form. Refer to FAA Order 5200.11, Appendix D. SAS forms are available from your Regional SMS Coordinator or on the national shared "Q" drive.

2.1.4. Required Steps

For ARP approval actions at applicable airports, the ARP Project Manager must:

1. Complete the applicable SAS form for the ARP approval action under consideration.
 - a. Use the SAS-1 form for construction safety/phasing plans, new/revised ALPs, Part 150 changes, and non-construction airport changes.
 - b. Use the SAS-2 form for modifications of airport design standards.
2. Use the SAS form results to determine whether SA is required. If SA is required, go to step 2.

2.1.5. Output/Products

For triggering actions, the ARP Project Manager must complete Blocks 1-4 of the SAS form.

1. If SA **is not needed**, complete the SAS form by signing Block 4, file accordingly, and continue to step 6 below.
2. If SA **is needed**, complete Block 4 and continue to Step 2 below.
3. Consult with the Regional SMS Coordinator or the Airport Sponsor as required.

2.2. Step 2: Determine if an SRM Panel (SRMP) Is Required

2.2.1. General

Conducting SA for an ARP approval action does not always mean a panel of subject matter experts (SMEs) is required. SA can be successfully conducted by an ARP Project Manager, a

few SMEs, or a formal panel. Use the SAS forms in Order 5200.11 to help determine the appropriate level of SA for the ARP approval action.

2.2.2. References

- Order 5200.11, (latest version incorporating changes), Chapter 4, Appendix B and Appendix D
- ARP SMS Desk Reference, Sections 5.1 through 5.3

2.2.3. Prerequisites

Before beginning this step, the ARP Project Manager must have:

1. Output/products from Step 1 above.
2. The existing project files or background information, i.e., planning studies, proposed Airport Layout Plan (ALP) changes, draft Construction Safety and Phasing Plans (CSPP), airspace (OE/AAA) coordination results, Modification of Standards (MOS) requests, etc., that identify the scope of the project.

2.2.4. Required Steps

The ARP Project Manager must:

1. Review the partially completed SAS form for accuracy. If additional information is required, return to Step 1. See Order 5200.11, Appendix D.
2. Consider other information, such as airspace coordination comments, project complexity, and location on the airfield.
3. If there are questions while completing the SAS form, consult with the Regional SMS Coordinator.

2.2.5. Output/Products

This step should result in the successful completion of SAS form, Blocks 1 through 7. The Project Manager must include any information or documentation collected during this step with the SAS form and process it as explained below:

1. If SAS-1 Block 6 or SAS-2 Block 4 indicates a formal SRMP **is not required**, the Project Manager signs the SAS form and saves one copy on the national shared “Q” drive and one copy locally. This completes the SA process. Continue to Step 6 below.
2. If SAS-1 Block 6 or SAS-2 Block 4 indicates an SRMP **is required**, the Project Manager must notify the Airport Sponsor and the Regional SMS Coordinator that a panel must be convened before ARP can approve the triggering action. Continue to Step 3 below.

2.3. Step 3: Formulate the SRMP

2.3.1. General

If SAS-1 Block 6 or SAS-2 Block 4 indicates an SRMP is required, the ARP Project Manager must initiate the process, monitor the panel’s progress, and guide the Airport Sponsor through

the process. The SRMP is a panel of SMEs that evaluate the project proposal's effect on airport safety, identify potential hazards, assess the likelihood and severity of hazards, and suggest mitigation measures to reduce the risk to an acceptable level.

2.3.2. References

- ARP SMS Desk Reference, Section 5

2.3.3. Prerequisites

Before convening the SRMP, the Project Manager must have:

1. The output/products from Step 2 above.
2. The completed SAS form Blocks 1-7 and any associated documentation or information used to determine the need for the SRMP.

2.3.4. Required Steps

2.3.4.1. ARP Project Manager Responsibilities

The ARP Project Manager must:

1. Notify the Regional SMS Coordinator of the Sponsor's requested ARP approval action and that an SRMP is required before ARP can approve the action that triggered the SA requirement.
2. Notify the Airport Sponsor that an SRMP is required before the ARP approval action.
3. Advise the Airport Sponsor of the SRMP process and assist the Sponsor with the SRMP steps.
4. Recommend the FAA panel SMEs. (See ARP SMS Desk Reference, Sections 4.6 and 5.6.2, and consult with the Regional SMS Coordinator.)
5. Approve the Sponsor's selection for the SRMP facilitator. (See Desk Reference, Section 5.6 and Appendix F.)
6. Provide the electronic Hazard Assessment worksheet (usually a Preliminary Hazard Analysis or Comparative Safety Assessment spreadsheet) to the facilitator for use in capturing the panel comments and results. (The Hazard Assessment worksheet forms are included with each SAS-1 and SAS-2 form on the national shared drive.)
7. Provide the sample "ARP SRM Panel Briefing for Facilitators" presentation. (The presentation is located on the ARP national shared drive or available from the Regional SMS Coordinator.) The facilitator will adapt this presentation to fit the specific triggering action and present it at the beginning of the SRMP to explain the SA process to participants.

2.3.4.2. Airport Sponsor Responsibilities

The Airport Sponsor is responsible for:

1. Procuring the SRMP facilitator and providing logistics for the panel meeting. (See the ARP SMS Desk Reference, Section 5.6.1 and Appendix F, for facilitator information.)

2. Identifying Sponsor, airlines, tenants, and consultant SMEs as potential members of the panel.
3. Preparing a Project Proposal Summary for the panel to review. The Project Proposal Summary is the detailed explanation of the project that can be easily understood by the panel SMEs. (The Sponsor's consultant usually prepares this document.)

2.3.5. Output/Products

This step should result in identification of a panel facilitator, a list of panel SMEs, a Project Proposal Summary, and preparation for the SRMP meeting. Continue to Step 4.

2.4. Step 4: Conduct the SRMP

2.4.1. General

The SRMP facilitator must be a neutral party, responsible for conducting the panel and helping reach a consensus on the Hazard Assessment, the risk assessment, and appropriate mitigation. In addition, the panel facilitator should assemble all the documents necessary for the ARP approval. See the ARP SMS Desk Reference, Section 6, for a list of the documentation required for each of the ARP approval actions.

2.4.2. References

- Order 5200.11, Chapter 4
- ARP SMS Desk Reference, Sections 5 and 6

2.4.3. Prerequisites

This step requires:

1. The documentation collected in Steps 1-3.
2. A Project Proposal Summary that describes the requested ARP approval action.
3. A list of panel members.
4. A panel facilitator.

2.4.4. Required Steps

2.4.4.1. ARP Project Manager Responsibilities

The ARP Project Manager must:

1. Brief the facilitator before the meeting to ensure the facilitator is aware of his or her responsibilities and has SME contact information, the Project Proposal Summary, the panel briefing presentation, the Preliminary Hazard Analysis or Comparative Safety Assessment spreadsheet, the appropriate SAS form, and the Hazard Assessment Worksheet.
2. Coordinate with the Sponsor and/or the facilitator to ensure they understand the logistics responsibilities for the SRMP meeting.

3. Attend the SRMP and participate as a subject matter expert.

2.4.4.2. SRMP Facilitator Responsibilities

The SRMP facilitator must:

1. Provide a date, time, and location for the SRMP meeting.
2. Gather information required for the panel to convene. The required information will vary by project. The facilitator will work with the ARP Project Manager to ensure the project is properly described and that sufficient supporting information is available.
3. Coordinate with the airport sponsor and FAA project manager to develop a list of SRMP members and their contact information, including those attending via teleconference.
4. Convene the panel and provide an in-brief to panel members about the intent of the panel, rules of the panel, and what constitutes successful completion of the panel.
5. Lead the panel through the process of identifying hazards, identifying worst credible outcomes, and evaluating risk.
6. Fill in the Hazard Assessment Worksheet as the panel proceeds through the process.
7. Facilitate discussion among panel members to reach consensus on each identified element of the hazard assessment.
8. Obtain panel consensus on the initial risk determination.
9. Facilitate and document discussion on ways to mitigate unacceptable risk.
10. Facilitate panel discussion to reach consensus on the mitigated final risk level.
11. Prepare the final Safety Assessment document.
12. Obtain signatures of panel participants confirming the hazard assessment, risk levels, and mitigation steps described on the documentation accurately reflect the panel discussion. The facilitator should note any panel members participating by telephone. Scanned signatures submitted after the panel via e-mail are acceptable and should be included in the document. Documentation of panel member concurrence with the Safety Assessment document by e-mail is also acceptable.
13. Document any dissenting SME opinions.

2.4.4.3. Panel SME Responsibilities

Panel SMEs should:

1. Attend the panel in accordance with their FAA Line of Business (LOB), Sponsor, or business requirements.
2. Participate in the discussions as required to share their technical expertise.
 - a. Panel members are expected to defer to the expertise of the SME representing the FAA LOB or Sponsor entity that has authority over the hazard under discussion.
3. Sign the SAS form in the SA Panel Members and Certifications block.

2.4.5. Output/Products

This step should result in a completed SAS form, a Hazard Assessment Worksheet that identifies initial hazards and their risk (likelihood and severity), and a risk mitigation plan for the hazards (if required). If there are dissenting panel members, the SA documentation should include these dissensions. These materials, combined with the Project Proposal Summary, comprise the required ARP Safety Assessment (SA) documentation. Continue to Step 5.

2.5. Step 5: Documentation and SA Approval

2.5.1. General

The facilitator is responsible for assembling all the documentation needed for the ARP SA approval. The facilitator should complete these documents promptly after the panel meeting. The completed SA documentation for each of the ARP SA triggering actions is listed in Step 4 above and the ARP SMS Desk Reference, Chapter 6. Generally, the documentation consists of the SAS form, Project Proposal Summary, Hazard Assessment Worksheet, mitigation plan, notes or comments from the panel discussion, and dissenting panel member statement (if applicable).

2.5.2. References

- ARP SMS Desk Reference, Section 5.9 and Chapter 6

2.5.3. Prerequisites

This step requires all documentation from Step 4.

2.5.4. Required Steps

2.5.4.1. ARP Project Manager Responsibilities

The ARP Project Manager must:

1. Coordinate with the panel facilitator (and assist if necessary) to assemble the SA documentation.
2. Provide a copy of the SRMP documentation to the Airport Sponsor and obtain the Sponsor's signature on the SAS form.
3. Provide the complete SA panel documentation to the appropriate ARP manager (per Order 5200.11, Table 4-1) for signature. The ARP approval of the triggering action can be signed after the SRMP is complete and the Safety Assessment (SAS form) is signed by the ARP manager.
4. File the SRMP results with the ARP approval action that triggered the SA process and provide a copy to the Regional SMS Coordinator. For SRMPs conducted for Modification of Standards, attach the SRMP results to the MOS forms as documentation for the MOS approving official.
5. Upload the SA documentation into the SA hazard tracking system (SRMTS), currently saved on the national shared "Q" drive.
6. Provide the signed Safety Assessment document to the Airport Sponsor and any SRMP member who requests a copy.

2.5.4.2. Airport Sponsor Responsibilities

The Airport Sponsor must:

1. Review the results of the SRMP.
2. Sign the Airport Certification and Acceptance block of the SAS form.
3. Implement mitigation measures (if any) that result from the Safety Assessment.
4. Implement the hazard mitigation plan (if any) and monitor the result.

2.5.5. Output/Products

This step should result in a signed Safety Assessment document and, if applicable, a hazard mitigation plan agreed to by the parties responsible for the mitigation measures.

2.6. Step 6: Safety Assurance

2.6.1. General

The above steps complete the SRM component of SMS, but they do not mark the end of ARP SMS efforts. The Safety Assurance component of SMS requires Project Managers to monitor the project to ensure mitigation measures are implemented and evaluate the effectiveness of the mitigation measures.

2.6.2. Reference

- ARP SMS Desk Reference, Chapters 5 and 9

2.6.3. Entrance Criteria

Before starting this step, the ARP Project Manager must have:

1. A signed SAS form from Steps 1, 2, or 5.
2. If a panel was used, the SRMP documentation from Step 4.
3. If a panel was used and mitigations required, the hazard mitigation documentation.

2.6.4. Required Steps

The ARP Project Manager must:

1. Consider including any mitigation measures a Sponsor is required to implement, mitigation monitoring, and reporting in grants as special conditions (if applicable).
2. Conduct oversight to confirm the mitigation measures are being implemented. (Consider requiring the Sponsor or their construction manager/consultant to include the status of mitigation measures in the regular project reports.)
3. Reconvene the panel and reevaluate the mitigation plan if mitigation measures are found to be ineffective.
4. Reconvene the panel if changes in the project scope affect safety. (Reconvening the panel by a teleconference is an option.)
5. File the mitigation documentation in the appropriate location.

2.6.5. Output/Products

This step should result in document implementation, progress and completion of mitigation plans, and completion of the ARP SMS/SA process for the project.

3. AVAILABILITY OF ARP SMS/SRM TRAINING

The Office of Airports has developed the following training courses on ARP SMS requirements. See the ARP SMS Desk Reference, Chapter 10.

1. ARP SMS Overview – Course Number 06000005. Web-based course available internally to FAA staff through eLMS and externally to Sponsors and consultants through the Integrated Distance Learning Environment (IDLE).
2. ARP SRM Practitioners Course – Course Number 06000006. Resident course taught annually at the FAA Academy in Oklahoma City.
3. ARP SMS Facilitation – Web-based course available for potential SRM facilitators through IDLE.