

# U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

JO 1000.37C CHG 2

Effective Date: 11/08/2024

Air Traffic Organization Policy

SUBJ: Air Traffic Organization Safety Management System

- 1. Purpose. This change adds the Acceptable Level of Risk (ALR) to Federal Aviation Administration (FAA) Order JO 1000.37, *Air Traffic Organization Safety Management System*, as risk acceptance criteria for space missions in the National Airspace System (NAS). It also adds the Safety Risk Management Guidance for System Acquisitions (SRMGSA) to Paragraph 2-2a(3).
- **2.** Audience. This change applies to all Air Traffic Organization (ATO) employees and contractors.
- **3.** Where to Find This Order. This order is available on the <u>Federal Aviation Administration</u> (FAA) Orders and Notices webpage and on the <u>FAA Air Traffic Plans and Publications</u> webpage.
- **4. Explanation of Change.** The NAS is dynamic, evolving in ways that often affect aviation safety. The expansion of space operations increases the complexity of the system and, like every other operation in the NAS, requires the FAA's continued examination to ensure that safety risk is appropriately managed. Accommodating new entrants into the NAS, while maintaining the accepted level of safety, is a challenge and has led the FAA to take a closer look at its Safety Management System (SMS) and safety risk acceptance criteria.

Aviation and space safety methods and standards have developed over time through the work of different parties operating under different circumstances. The FAA Office of Commercial Space Transportation and the ATO have separately established public safety risk acceptance criteria that are expressed using different terminology and numerical values. ALR bridges these differences and accommodates the growth of space launches in the NAS.

FAA Notice JO 1000.31, Application of the Acceptable Level of Risk (ALR) to Space Missions in the National Airspace System (NAS), was published in February 2024 to establish the ATO's policy for applying ALR as risk acceptance criteria for space missions in the NAS. FAA Order JO 1000.45, Application of the Acceptable Level of Risk to Space Missions in the National Airspace System, was subsequently published. This change incorporates ALR and FAA Order JO 1000.45 into FAA Order JO 1000.37.

This change also adds the SRMGSA to Paragraph 2-2a(3) as an ATO SMS document with which the ATO must comply.

Distribution: Electronic Initiated By: AJI-0

## PAGE CHANGE CONTROL CHART

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10/1/21	1-4	11/08/2024
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# U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

JO 1000.37C CHG 1

Air Traffic Organization Policy

Effective Date: 05/10/2024

## **SUBJ:** Air Traffic Organization Safety Management System

- 1. **Purpose.** This change establishes the Safety Management System (SMS) training policy for all Air Traffic Organization (ATO) employees and contractors and for any participant on an ATO Safety Risk Management (SRM) panel. It defines the level of SMS training required depending on the safety role an employee is tasked to perform.
- **2. Audience.** This change applies to all ATO employees, contractors, and any non-ATO employees participating on ATO SRM panels.
- **3.** Where to Find This Order. This order is available on the <u>Federal Aviation</u> Administration (FAA) Orders and Notices webpage and on the <u>FAA Air Traffic Plans and Publications webpage</u>.
- **4. Explanation of Change.** Safety and Technical Training (AJI) is required to provide SRM training using trained SRM instructors. AJI is also required to develop and maintain ATO SMS training materials, requirements, and schedules. SMS and SRM training must be appropriate for each individual's involvement in the SMS. The ATO SMS Manual describes various roles and responsibilities the ATO must perform to support the SMS. This change identifies the training that is required for all ATO employees and contractors and the training recommended for non-ATO employees tasked to perform certain ATO SRM functions.

#### PAGE CHANGE CONTROL CHART

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2-12	10/01/2021	2-12	05/10/2024
		APPENDIX A	05/10/2024

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Distribution: Electronic 1 Initiated By: AJI-0



## U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

Air Traffic Organization Policy



Effective Date: 10/1/2021

SUBJ: Air Traffic Organization Safety Management System

The core business function of the Air Traffic Organization (ATO) is to provide safe and efficient Air Traffic Management (ATM) services in the National Airspace System (NAS) and in United States—controlled international/oceanic airspace. ATM services include communications, navigation, and surveillance services. Safety is fundamental to the provision of these services; the ATO develops, implements, and maintains processes, tools, and guiding principles within the framework of a Safety Management System (SMS) to ensure that performance-based NAS safety goals are achieved. The ATO ensures that the management of safety is a primary and defined responsibility of all managers and employees. This order establishes the SMS as the foundation upon which the ATO's safety efforts are conducted and measured.

All ATO employees must strive not only to maintain safety in the NAS for those services they provide but also to continuously improve the ATO SMS. The ATO must continually refine its SMS to maintain acceptable safety performance and support a positive safety culture. The Chief Operating Officer is accountable for the continued maturation of the SMS and its processes, tools, and initiatives to promote and improve safety.

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Distribution: Electronic Only Initiated By: AJI-0

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### **Chapter 1. General Information**

1. Purpose of This Order. This order establishes Safety Management System (SMS) policies for the Air Traffic Organization (ATO). It defines the scope, requirements, and applications of the SMS in the ATO and gives the responsibility for owning and executing the SMS to all employees at all levels of the ATO, from the ATO Chief Operating Officer (COO) to the individual air traffic controllers and airway transportation systems specialists at a Service Delivery Point (SDP). The ATO COO is the ultimate accountable executive for ensuring the effectiveness of the SMS.

Specifically, this order requires the ATO SMS to be the framework for the:

- Development of safety policy and processes;
- Promotion of a safety culture that identifies and reports activities that are potentially or actually detrimental to system safety;
- Identification, analysis, assessment, and treatment of safety risk within the National Airspace System (NAS) and United States—controlled international/oceanic airspace; and
- Continuous collection, analysis, and assessment of safety data to determine if the ATO is meeting or exceeding its safety performance objectives and to determine the effectiveness of safety risk controls.
- **2. Audience.** This order applies to all employees and contractors at all levels of the ATO to include its Service Units engaged in the provision of Air Traffic Management (ATM) and communication, navigation, and surveillance services.

#### NOTE-

The ATO Service Units include Safety and Technical Training (AJI); the Program Management Organization (AJM); Technical Operations (AJW) and Air Traffic Services to include Headquarters (HQ), the Service Areas, and SDPs; System Operations Services to include HQ and the Air Traffic Control System Command Center; Mission Support Services (AJV) to include HQ and the Service Center; and Management Services. Although Flight Program Operations, AJF, is an ATO Service Unit, it adheres to an SMS per Title 14 of the Code of Federal Regulations Part 5, SAFETY MANAGEMENT SYSTEMS.

- **3.** Where to Find This Order. This order is available on the Federal Aviation Administration (FAA) Orders and Notices webpage and on the FAA Air Traffic Plans and Publications webpage.
- **4.** Cancelation. This order cancels FAA Order JO 1000.37B, *Air Traffic Organization Safety Management System*, dated October 31, 2018.

**5.** Explanation of Policy Changes. This order includes revisions that address needed improvements to mature the ATO SMS and clarify requirements. Changes include:

- Clarifying AJI Safety Policy roles and responsibilities, including:
  - Reassignment of the roles previously carried out by the ATO Chief Safety Engineer, and
  - Removal of ATO Safety Manager designation and reassignment of the ATO Safety Manager roles and responsibilities to the Safety Management Group, AJI-31, Manager.
- Aligning SMS definitions with the ATO SMS Manual.
- **6. Authority to Supplement.** This order may be supplemented to add further detail and clarification; however, supplements may not subtract from, conflict with, or void the policy described herein. All supplements to this order must be approved by AJI in accordance with FAA Order JO 1030.1, *Air Traffic Organization Safety Guidance*.
- **7. Scope.** The ATO SMS focuses on the safe provision of ATM and communication, navigation, and surveillance services. Accordingly, this order does not directly apply to issues related to the environment, occupational safety and health, physical security, cybersecurity, or information security, unless those issues affect the operational safety of NAS services provided by the ATO.

## 8. Background.

- **a. About the SMS.** The SMS is a multidisciplinary, integrated, and closed-loop framework used to help maintain safe and efficient air navigation services and infrastructure throughout the NAS and in United States—controlled international/oceanic airspace. It supports International Civil Aviation Organization (ICAO) standards and recommended practices. The four components that make up the SMS are:
  - (1) **Safety Policy.** The documented organizational policy that defines management's commitment, responsibility, and accountability for safety. Safety Policy identifies and assigns responsibilities and accountabilities to key safety personnel.
  - (2) **Safety Risk Management.** A process within the SMS composed of describing the system; identifying the hazards; and analyzing, assessing, and treating risk. Safety Risk Management (SRM) includes requirements to define monitoring strategies for the identified safety risk in the NAS. SRM complements Safety Assurance.
  - (3) **Safety Assurance.** A set of processes within the SMS that verify that the organization meets or exceeds its safety performance objectives. These processes function systematically to determine the effectiveness of safety risk controls through the collection and analysis of data and assessment of information.

(4) **Safety Promotion.** The communication and distribution of information to improve the safety culture and the development and implementation of programs and/or processes that support the integration and continuous improvement of the SMS within the ATO. Safety Promotion allows the ATO to share and provide evidence of successes, best practices, and lessons learned.

- b. Establishment of the SMS. The ATO SMS, as approved by the Air Traffic Safety Oversight Service (AOV), has been implemented in accordance with FAA Order 1100.161, *Air Traffic Safety Oversight*, and FAA Order 8000.369, *Safety Management System*. It also complies with ICAO SMS standards and recommended practices, including those in ICAO Annex 19, *Safety Management*. The ATO SMS is executed in accordance with the ATO SMS Manual and the Safety Risk Management Guidance for System Acquisitions (SRMGSA) and through the concerted application of various FAA/ATO safety documents, including ATO Safety Guidance (ATO-SG) documents. Some of these safety documents are listed in Chapter 1, Paragraph 8e.
- c. Improvement of the SMS and Safety. The ATO is committed to continuously improving SMS processes used to identify and address safety issues associated with ATO-provided services and NAS equipment and infrastructure. To manage safety, the ATO utilizes available data to assess risk from multiple points of view, considering the combined effects of processes, human operators, hardware, and software. The ATO measures the performance of each of those system elements to ensure lapses do not create unacceptable risk or lead to accidents.
- **d. ATO Leadership Roles.** There are three key ATO safety leadership roles: the Vice President of Safety and Technical Training, AJI; the Director of Policy and Performance, AJI-3; and the AJI-31 Group Manager. They are responsible for overseeing the ATO SMS and ensuring that unacceptable risk is not introduced into the NAS.
- **e.** Relevant Safety Documents. Compliance with the current versions of the following documents is integral to and supports the successful execution of the ATO SMS:
  - (1) Safety Management and Risk Assessment
    - FAA Order 8000.369, Safety Management System
    - FAA Order 8040.4, Safety Risk Management Policy
    - The ATO SMS Manual
    - The SRMGSA
    - FAA Order JO 1030.1, Air Traffic Organization Safety Guidance
    - FAA Order 1100.161, Air Traffic Safety Oversight
    - FAA Order 8040.6, Unmanned Aircraft Systems Safety Risk Management Policy
    - FAA Order JO 1030.7, Air Traffic Organization Fatigue Risk Management

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- FAA Order JO 2900.2, Air Traffic Organization Audits and Assessments
- FAA Order JO 3000.57, Air Traffic Organization Technical Operations Training and Personnel Certification
- FAA Order JO 3120.4, Air Traffic Technical Training
- FAA Order JO 1000.45, Application of the Acceptable Level of Risk to Space Missions in the National Airspace System
- (2) Facilities and Equipment Management:
  - FAA Order JO 6000.50, National Airspace (NAS) Project Implementation Risk Management
  - FAA Order 6000.15, General Maintenance Handbook for NAS Facilities
- (3) Hardware and Software System Development:
  - The Reliability, Maintainability, and Availability (RMA) Handbook
  - FAA Acquisition Management System (AMS) Policy / FAA Acquisition System Toolset
- (4) Safety Reporting:
  - FAA Order JO 7200.20, Voluntary Safety Reporting Programs
  - FAA Order 7050.1, Runway Safety Program
  - FAA Order JO 7210.632, Air Traffic Organization Occurrence Reporting
  - FAA Order JO 7210.633, Air Traffic Organization (ATO) Quality Assurance (QA)
  - FAA Order JO 7210.634, Air Traffic Organization (ATO) Quality Control
  - FAA Order JO 7200.21, Partnership for Safety Program
  - FAA Order JO 1030.3, Initial Event Response
- (5) Directives Management:
  - FAA Order JO 7000.5, Procedures for Submitting Changes to Air Traffic Control Publications
  - FAA Order 1320.1, FAA Directives Management
  - FAA Order JO 1320.62, Air Traffic Organization Directives Management

#### Chapter 2. ATO SMS Roles and Responsibilities

#### 1. Safety Policy.

- **a. ATO Safety Policy Responsibilities.** The ATO must establish and maintain ATO safety policy, guidance, and processes that support mission requirements. Documents and processes must:
  - (1) Comply with FAA policy, requirements, and guidance (e.g., FAA Order 8040.4, FAA Order 8000.369, and the FAA AMS).
  - (2) Meet the NAS safety management requirements established by FAA Order 1100.161.
  - (3) Adhere to the basic principles and elements of safety management established by the ATO SMS Manual.
  - (4) Maintain required NAS service-level availability.

#### NOTE-

See the Reliability, Maintainability, and Availability (RMA) Handbook.

- **b. AJI Safety Policy Responsibilities.** The AJI Vice President is accountable for ensuring that the ATO SMS and supporting ATO safety policy are adhered to at all levels of the organization. Therefore, the AJI Vice President assigns roles and responsibilities to the following:
  - (1) **AJI-3 Director.** The AJI-3 Director is accountable for the management of the identification of operational safety risk in the services provided by the ATO. Among other duties, the AJI-3 Director must:
    - (a) Oversee the ATO SMS and ensure that unacceptable risk is:
      - Not introduced to the NAS
      - Mitigated to an acceptable level
    - (b) Approve safety documentation per the ATO SMS Manual guidelines.
    - (c) Represent the ATO at meetings concerning safety issues, including meetings of the Acquisition Safety Advisory Group, the Next Generation Air Transportation System (NextGen) Management Board, and the Joint Resources Council (JRC), when required. (Workgroups listed are not all-inclusive.)
    - (d) Ensure that safety risk is mitigated to an acceptable level in all stages of development of NAS equipment and systems.

(2) **AJI-31 Group Manager.** The AJI-31 Group Manager is accountable for maintaining and continuously improving the ATO SMS. Among other duties, the AJI-31 Group Manager must:

- (a) Serve as the ATO SMS liaison to the Service Units and other FAA Lines of Business (LOBs).
- (b) Develop, update, and approve ATO SMS policy, guidance, and processes needed to manage, implement, and apply best practices.
- (c) Develop, update, and approve ATO SMS policy, guidance, and processes that address ATO involvement in the integrated safety management of large, complex initiatives or capabilities that span multiple programs, Service Units, and/or FAA LOBs.
- (d) Manage the identification process for operational safety risk in the services provided by the ATO.
- (e) Review safety documentation per the ATO SMS Manual guidelines.
- (3) **AJI.** In support of the ATO SMS, AJI must:
  - (a) Maintain the ATO's SMS orders, ATO-SGs, the SRMGSA, the ATO SMS Manual, and associated guidance.
  - (b) Approve ATO safety input to the NAS Enterprise Architecture Safety Roadmap and the National Aviation Research Plan.
  - (c) Maintain the consistent application of safety and safety-related policy by reviewing all ATO Safety Orders and guidance materials.
  - (d) When other ATO policy includes integrated safety doctrine or processes within an order that is not otherwise focused on safety, ensure that the policy of the order aligns with the ATO safety policy.
  - (e) Provide guidance and input to the Service Units concerning their developed safety processes and standard operating procedures.
  - (f) Review any ATO notifications of proposed differences to be filed with ICAO and provide a statement of concurrence or non-concurrence from a safety perspective.
  - (g) Provide feedback on behalf of the ATO on draft FAA safety policy or safety policy proposed by other FAA LOBs, as requested.
- c. Service Unit Safety Policy Responsibilities. The ATO Service Unit Vice Presidents are accountable for ensuring that their Service Units' processes and procedures align with ATO safety policies and guidance. In addition, the ATO Service Units must:

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(1) Include safety considerations in business planning activities that are integrated into ATO strategic plans at all organizational levels.

- (2) Align individual business plans with ATO SMS initiatives.
- (3) Ensure that all orders for which the Service Unit is the Office of Primary Responsibility (e.g., orders that are not specifically focused on SMS) align with ATO safety policy.
- (4) Develop and maintain emergency response plans that provide for the safe transition between normal and emergency operations where applicable, as required by FAA Order 8000.369.
- (5) Ensure that safety responsibilities are included in employee performance plans so that ATO safety professionals can perform their SMS-related work functions.

#### 2. SRM.

#### **a. ATO SRM Responsibilities.** The ATO must:

- (1) Conduct SRM on ATO-provided NAS changes and improvements, as well as on existing safety issues with ATO operations, facilities, equipment, and systems identified through Safety Assurance, in accordance with FAA/ATO directives, the ATO SMS Manual, and the SRMGSA, if applicable.
- (2) Accept safety risk into the NAS per the requirements established in the ATO SMS Manual and, if applicable, FAA Order JO 1000.45.
- (3) Comply with the ATO SMS Manual, FAA Order JO 1000.45, and the SRMGSA. For a confirmed existing high-risk hazard, the ATO COO must:
  - (a) Approve interim mitigations along with an acceptable predicted residual risk, or
  - (b) Require the operation causing the high-risk hazard be stopped.

#### **b. AJI SRM Responsibilities.** AJI must:

- (1) Conduct cross-LOB SRM in accordance with FAA Order 8040.4, when applicable. In particular for ATO-led cross-LOB SRM efforts, AJI must:
  - (a) Coordinate hazards that cross between the ATO and other FAA LOBs.
  - (b) Invite other FAA LOBs to participate in ATO SRM efforts, as appropriate.
  - (c) Resolve disputes with other FAA LOBs or elevate them to the SMS Committee, when necessary.
  - (d) Inform each affected FAA LOB of any risks and/or safety requirements for which they are responsible.

(e) Coordinate with other FAA LOBs to verify that mitigations are approved by the appropriate management officials.

- (f) Coordinate with other FAA LOBs to ensure they have the opportunity to review SRM documents for accuracy and correctness with regard to the proposed change or existing safety issue and to facilitate their approval of the documents.
- (2) Participate in SRM efforts initiated by other FAA LOBs when requested and as resources permit.
- (3) Provide SRM expertise, guidance, review, and input to the Service Units to ensure compliance with ATO SMS policy.
- (4) Facilitate/conduct SRM for NAS changes, as directed by the AJI-31 Group Manager, and in accordance with the ATO SMS Manual and the SRMGSA, if applicable, for SRM that meet any of the following criteria:
  - (a) Air traffic operations and equipment and systems acquisition modifications.
  - (b) Changes and waivers associated with training requirements for air traffic control and airway transportation systems specialists.
  - (c) Changes to policies, procedures, or NAS equipment for which training was originally developed by AJI.
  - (d) Removal of or modifications/waivers to existing national and/or local training requirements that could affect the NAS or NAS operations, except for the purposes of individual performance management.
  - (e) Potential NAS-wide safety issues identified through safety data trends.
- (5) Input SRM documentation for which AJI facilitated/conducted the SRM process into the ATO Safety Management Tracking System (SMTS).
- (6) Review and approve SRM documentation of NAS changes that meet the criteria for AOV approval per the ATO SMS Manual. These documents must be reviewed by the AJI-31 Group Manager and approved by the AJI-3 Director.
- (7) Review and approve SRM documentation requiring the signature of the AJI-3 Director, per the ATO SMS Manual.
- (8) Provide safety input for JRC and In-Service Decisions. Review and approve SRM documentation as necessary per the ATO SMS Manual and the SRMGSA.
- (9) Review and approve SRM documentation for NAS changes that impact ATO-provided services and cross or impact other FAA LOBs. These documents must be approved in accordance with the ATO SMS Manual.

(10) Conduct SRM on existing safety issues and previous practices that may impact the safety of ATO-provided NAS systems and services. These issues may include those identified by the National Transportation Safety Board (NTSB), the Office of the Inspector General (OIG), or the Government Accountability Office (GAO). The SRM process should occur prior to the acceptance and implementation of a solution. This includes Safety Assurance Corrective Action Requests (CARs) generated as an output of processes defined in FAA Order JO 7210.633; safety issues identified through Voluntary Safety Reporting Programs (VSRPs), as identified in FAA Order JO 7200.20; or the findings of Runway Safety Action Teams, as identified in FAA Order 7050.1. For emergency modifications, the SRM process must be followed per the ATO SMS Manual.

- (11) Request AOV approval for safety requirements that mitigate initial or identified existing high-risk hazards to an acceptable level on behalf of the Service Units.
- (12) Provide safety advisory services and integrated safety management support related to systems acquisitions, operational procedures, and second-level engineering to NextGen portfolio managers and program/project teams throughout the FAA AMS lifecycle, as requested.
- (13) Review the safety assessments and plans contained in the NAS Segment Implementation Plan to ensure they meet the ATO's safety policy and standards before they are approved by the NextGen Management Board, as requested.
- (14) Conduct safety strategy meetings and review and approve SRM documents for changes or safety-related issues involving ATO-provided NAS services that require input and resolution from internal (i.e., within the ATO) and external organizations.
- (15) Enter the appropriate data into the FAA Hazard Identification, Risk Management, and Tracking (HIRMT) tool as required by FAA Order 8040.4 for SRM of operational changes led by AJI, field facilities, Service Centers, and District Offices.
- (16) Mediate disagreements among the Service Units and FAA LOBs with regard to ATO SMS policy and SRM guidance (e.g., approval, risk assessment, risk acceptance), as requested.
- (17) Collaborate with AOV, on behalf of the ATO Service Units, to determine the appropriate organizations outside of the ATO required to review and approve any SRM documentation for systems, services, operations, and products delivered to organizations outside of the ATO.

#### *NOTE*–

These organizations include the Office of Aviation Safety, the Office of Airports, the Office of Commercial Space Transportation, the Office of NextGen (ANG), non-federal facility owners and sponsors, the Department of Defense, and other non-FAA organizations.

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(18) Collaborate with AOV, on behalf of the ATO Service Units, to determine safety risk acceptance ownership and to obtain agreement with all applicable safety risk acceptance organizations outside of the ATO. These organizations include recipients or users of FAA NAS systems, services, or products.

- (19) Provide SRM training using trained SRM instructors.
- **c. Service Unit SRM Responsibilities.** The ATO Service Units are responsible for establishing and maintaining the safe provisioning of ATM services provided by the ATO. To do so, the ATO Service Units must:
  - (1) Conduct and/or ensure, as required, the completion of the SRM process, in accordance with the ATO SMS Manual and, if applicable, FAA Order JO 1000.45, for:
    - (a) Changes to ATO-provided air traffic services and infrastructure, including second-level engineering changes.
    - (b) Existing safety issues in ATO-provided air traffic services.
  - (2) Record SRM efforts for NAS changes / existing safety issues in SMTS in accordance with the ATO SMS Manual. Maintain this information in SMTS (including up-to-date risk tracking and monitoring information) until the monitoring has been completed, as dictated by the monitoring plan, per the ATO SMS Manual.
  - (3) Review and approve applicable SRM documentation and accept associated risk, if appropriate, in accordance with the ATO SMS Manual.
  - (4) Assist AJI with SRM efforts to determine the organizational review, approval, and risk acceptance responsibilities for all SRM documentation for systems, services, and products delivered to organizations outside of the ATO, as requested.
  - (5) Provide subject matter expertise for FAA/ATO SRM activities, as required.
- **d. AJV SRM Responsibilities.** In addition to the responsibilities outlined in Chapter 2, Paragraph 2c, AJV must:
  - (1) Provide trained SRM panel facilitators at the Service Center for Service Area use.
  - (2) Provide SRM expertise, guidance, review, and input to local Air Traffic Control (ATC) facilities and AJW districts to ensure compliance with SMS policy.
- **e. AJM SRM Responsibilities.** In addition to the responsibilities outlined in Chapter 2, Paragraph 2c, AJM must:
  - (1) Conduct SRM for ATO acquisition programs under the jurisdiction of the JRC in accordance with the SRMGSA.

(3) Enter the information required by FAA Order 8040.4 into HIRMT for acquisition SRM documents that are facilitated by AJM.

- (4) For all applicable investments and acquisition programs, conduct a development assurance program in accordance with RTCA DO-278, Software Integrity Assurance Considerations for Communication, Navigation, Surveillance and Air Traffic Management (CNS/ATM) Systems, or its equivalent.
- (5) Prepare and approve all required development assurance documentation, as applicable.

## 3. Safety Assurance.

#### a. ATO Safety Assurance Responsibilities. The ATO must:

- (1) Maintain and verify the safety performance of the organization and assess the effectiveness of safety risk control strategies by measuring the current/residual risk and examining indicators of potential safety risk.
  - (a) Determine whether NAS safety performance targets are met.
  - (b) Monitor the ATO's safety performance indicators and assess the maturity of the SMS and compliance with safety policy.
  - (c) Provide data-driven safety information to decision-makers in order to prioritize and focus resources according to areas of highest safety risk or safety concern.
  - (d) Support improvements to the SMS through continual verification of safety data and follow-up actions.
  - (e) Implement mitigations to manage safety risk when NAS operations, facilities, equipment, and systems do not perform as designed or expected. In keeping with this order (Chapter 2, Section 2, SRM), perform SRM on the mitigation plans prior to their implementation. Account for any end-state human or operational interface effects (i.e., human factors) after operations, facilities, equipment, and systems are fielded.

## b. AJI Safety Assurance Responsibilities. AJI must:

- (1) Manage the application of Safety Assurance processes in the NAS, including the application of the safety policies listed in Chapter 1, Paragraph 8e.
- (2) Monitor internal processes and operations to identify changes, deviations, or trends to ensure NAS safety.
- (3) Conduct both on-site and remote independent audits/assessments to evaluate:
  - (a) SMS and operational performance and compliance within the ATO.

(b) The effectiveness of the internal quality control efforts (e.g., operational skills assessments, system service reviews, certification, periodic maintenance, data integrity, modifications, and availability) in ATC facilities and the AJW districts.

- (c) Suspected trends identified from safety data analysis.
- (d) The effectiveness of safety-related policies and procedures in managing safety risk.
- (e) Compliance with the ATO SMS, FAA policies, Corrective Action Plans (CAPs), and other audits.
- (4) Periodically report to the AJI Vice President on the maturity of the ATO SMS.
- (5) Conduct independent operational assessments on selected acquisition systems and safety assessments on selected fielded systems. Ensure that the systems adhere to ATO SMS requirements and that safety hazards and concerns resulting from these assessments are managed.
- (6) Inform the ATO COO of SMS non-compliance by Service Units or other identified unsafe acts within the ATO, when necessary.
- (7) Analyze and/or respond to air traffic incidents and accidents with the goal of distributing information and improving NAS safety by employing best practices.
- (8) Analyze risk and determine causal factors of air traffic incidents and accidents.
- (9) Monitor NAS performance and identify potential trends and risks affecting changes to existing ATO operations and procedures.
- (10) Notify the responsible Service Unit when safety performance indicators show a NAS safety concern or issue, including those concerns and issues previously identified.
- (11) Audit and/or assess Service Units' actions taken to mitigate hazards identified during the SRM process and the safety performance of those actions at managing safety risk to an acceptable level.
- (12) Calculate and monitor the ATO Safety Performance Indicators.
- (13) Issue CARs in accordance with the requirements of FAA Order JO 7210.633. As appropriate, evaluate and concur with CAPs submitted in response to CARs. Assist with the development of CAPs resulting from CARs.
- (14) Support Post-Implementation Reviews, as requested.

(15) Develop, implement, and maintain tools that support data analysis (e.g., the Comprehensive Electronic Data Analysis and Reporting system) in conjunction with the Service Units.

- (16) Maintain safety management tracking tools to:
  - (a) Track and store SRM efforts and associated safety documentation.
  - (b) Track and store monitoring efforts resulting from the SRM process.
  - (c) Track Service Unit audits, assessments, SMS and safety non-compliance issues, and corrective actions.
  - (d) Track ATO-related responses to safety recommendations from the NTSB, the OIG, the GAO, other FAA LOBs, and other federal agencies.
- (17) Develop and distribute safety data analysis reports that indicate safety performance in the NAS.
- (18) Maintain processes to analyze risk and to produce safety information that allows the ATO to effectively prioritize actions and mitigations designed to reduce risk in the NAS.
- c. Service Unit Safety Assurance Responsibilities. The ATO Service Units must:
  - (1) Conduct quality control activities in accordance with FAA Order JO 7210.634.
  - (2) Report suspected air traffic and/or technical operation occurrences in accordance with FAA Order JO 7210.632.
  - (3) Implement mitigations (per SRM efforts) to manage safety risk to an acceptable level when NAS operations, facilities, equipment, and systems do not perform as designed or expected.
  - (4) Monitor safety performance to determine if the predicted residual risk identified in SRM documents is being met.
  - (5) Monitor and validate NAS service availability standards.
  - (6) Enter, track, and monitor hazards and associated mitigations on an ongoing basis using SMTS.

#### NOTE-

The risk-accepting Service Unit is responsible for completing this task. When AJI facilitates a national operations-based SRM panel, they may enter, track, and monitor residual risk. It is the responsibility of the risk-accepting organization to ensure this requirement is completed.

(7) Provide subject matter expertise to ATO Safety Assurance activities, as required.

(8) Support and facilitate safety assessments, audits, and evaluations conducted by the ATO, as requested.

- (9) Validate and verify that the safety requirements identified during the SRM process are implemented prior to or in conjunction with full implementation in the NAS by the appropriate ATO Service Unit.
- (10) Submit CAPs (with appropriate SRM efforts identified) in response to CARs, in accordance with the requirements of FAA Order JO 7210.633 and the ATO SMS Manual. Begin implementation of CAPs upon AJI concurrence.
- **d. AJV Responsibilities.** In addition to the responsibilities outlined in Chapter 2, Paragraph 3c, AJV must:
  - (1) Assess ATC facility and Technical Operations district compliance with tracking and implementation of safety requirements approved through SRM documents in accordance with the ATO SMS Manual when conducting External Compliance Verification (ECV) and other appropriate safety assessments, audits, and evaluations.
  - (2) Assess ATC facility and Technical Operations district compliance with monitoring, documenting, and responding to lower than expected results for required safety performance targets when conducting ECV and other appropriate safety assessments, audits, and evaluations.

## 4. Safety Promotion.

- **a. ATO Safety Promotion Responsibilities.** The ATO must promote a positive safety culture within its organization by:
  - (1) Complying with ATO SMS requirements.
  - (2) Allocating sufficient resources, funding, and personnel to operate and maintain the ATO SMS.
  - (3) Promoting ATO SMS policy and awareness within the ATO and across the FAA via SMS training, conferences/workshops, and other communications efforts.
  - (4) Fostering a voluntary, cooperative, non-punitive environment for the open reporting of safety concerns.

### b. AJI Safety Promotion Responsibilities. AJI must:

- (1) Develop and maintain ATO SMS training materials, requirements, and schedules.
- (2) Ensure that safety communication efforts are distributed, including a quarterly ATO SMS publication.

(3) Conduct safety awareness programs and promotional campaigns that are consistent with ATO SMS principles and safety culture principles, including ATO SMS training.

- (4) Make available best safety practices and lessons learned.
- (5) Maintain a VSRP database, in accordance with FAA Order JO 7200.20, through which ATO personnel can report potential NAS safety-related incidents, issues, unsafe acts, and hazardous conditions.
- (6) Establish a partnership for local collaborative efforts between FAA management and the National Air Traffic Controllers Association (NATCA) at the facility level in accordance with FAA Order JO 7200.21 and the ATO SMS Manual. Establish a similar partnership with the Professional Aviation Safety Specialists (PASS) as appropriate. This will facilitate risk identification through the use of collaborative safety councils and ATO SRM panels consisting of employees and management at facilities across the NAS.
- (7) Actively share safety-related information with other external parties (e.g., industry stakeholders, military, Air Navigation Service Providers (ANSPs), and other federal agencies), as appropriate.
- (8) Represent the ATO in matters related to NAS operational safety with organizations both internal and external to the FAA. This includes:
  - (a) Representing the ATO by resolving high-level safety issues at operational meetings and other decision forums.
  - (b) Coordinating ATO-related responses to safety recommendations and serving as the ATO's primary interface with AOV, the OIG, the GAO, the NTSB, other FAA LOBs, and other federal agencies.
  - (c) Facilitating intra— and inter—Service Unit coordination on operational safety issues.
  - (d) Participating in cross–FAA LOB meetings to resolve operational safety issues.
  - (e) Participating in cross–FAA LOB safety audits and assessments.
  - (f) Serving as the ATO representative on the FAA SMS Executive Council and the FAA SMS Committee and reporting to both forums on the status of the ATO SMS and other safety issues.
  - (g) Coordinating with international ANSPs, ICAO, the Civil Air Navigation Services Organisation, and others, as appropriate.

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**c. ATO Service Unit Safety Promotion Responsibilities.** To promote a safety culture that includes positive attitudes, processes, and structures affecting individuals and the organization, ATO Service Units must:

- (1) Require that management, personnel, and contractors:
- (a) Promote and abide by ATO SMS principles, processes, and policies and use ATO SMS tools to continuously improve the safety of the NAS.
- (b) Inform management of conditions or perceived issues that may impact the safety of the NAS using formal or informal reporting tools and processes such as those established in FAA Order JO 7200.20.
- (2) Allocate sufficient resources, funding, and personnel for the conduct of SRM and Safety Assurance activities within their span of control.
- (3) Support, as required, the ATO-managed Safety Assurance programs outlined in the following orders:
  - FAA Order JO 1030.7, Air Traffic Organization Fatigue Risk Management
  - FAA Order JO 2900.2, Air Traffic Organization Audits and Assessments
  - FAA Order 7050.1, Runway Safety Program
  - FAA Order JO 7210.633, Air Traffic Organization (ATO) Quality Assurance (QA)
  - FAA Order JO 7200.21, Partnership for Safety Program
  - (4) Promote the capture of safety best practices and lessons learned.
    - (a) Encourage the reporting of safety best practices and lessons learned.
    - (b) Use safety best practices and lessons learned to augment processes and procedures.
- (5) Foster an integrated organizational culture in which safety is a shared value that encourages everyone to work toward improving the safety of ATO-provided NAS services.
- (6) Ensure that Service Unit personnel complete the required SMS training outlined in Appendix A, as it relates to their assigned roles and responsibilities.

#### **Chapter 3. Administrative Information**

1. **Distribution.** This order is distributed to all levels of the ATO, including but not limited to the Service Units and FAA contract service providers. It is also distributed to ANG and AOV.

#### 2. Acronyms.

AJI Safety and Technical Training
AJM Program Management Organization

AJV Mission Support Services AJW Technical Operations

AMS Acquisition Management System

ANG NextGen

ANSP Air Navigation Service Provider AOV Air Traffic Safety Oversight Service

ATC Air Traffic Control
ATM Air Traffic Management
ATO Air Traffic Organization

ATO-SG Air Traffic Organization Safety Guidance

CAP Corrective Action Plan
CAR Corrective Action Request
COO Chief Operating Officer

ECV External Compliance Verification

FAA Federal Aviation Administration

GAO Government Accountability Office

HIRMT Hazard Identification, Risk Management, and Tracking

HQ Headquarters

ICAO International Civil Aviation Organization

JRC Joint Resources Council

LOB Line of Business

**OIG** 

NAS National Airspace System

NATCA National Air Traffic Controllers Association NextGen Next Generation Air Transportation System NTSB National Transportation Safety Board

Office of the Inspector General

PASS Professional Aviation Safety Specialists

RMA Reliability, Maintainability, and Availability

SDP Service Delivery Point SMS Safety Management System

SMTS Safety Management Tracking System

SRM Safety Risk Management

SRMGSA Safety Risk Management Guidance for System Acquisitions

VSRP Voluntary Safety Reporting Program

# Appendix A. Air Traffic Organization Safety Management System Training Requirements

**Table A.1: ATO SMS Training Matrix**<sup>1</sup>

	All ATO	ATO SRM Panel Role				
Training Title	Employees	Change Proponent	Facilitator	Panel Member	SME	Observer
Managing Safety	X					
ATO SMS and SRM						
for Safety		X	X	X	X	X
Stakeholders						
ATO SRM Panel				X		
Member Workshop				Λ		
ATO SRM			X			
Practitioner Course			Λ			
ATO SRM Panel		X				
Facilitation Course						
SRM Panel						
Facilitation Refresher			X			
Course						

## 1. Web-based Training.

#### a. Managing Safety (FAA50338003).

- (1) Overview. The Managing Safety briefing provides a high-level overview of the Air Traffic Organization (ATO) Safety Management System (SMS) and explains its key components. It describes the Safety Risk Management (SRM) process as an integral component of the SMS and presents strategies for promoting a robust safety culture within the ATO. The briefing features a short video illustrating the risks and consequences of non-compliance with safety management.
  - (2) Target Audience. This training is required for all ATO employees and contractors.
- (3) How to Obtain the Training. This briefing is automatically assigned to ATO Federal employees through the electronic Learning Management System (eLMS). All ATO contractors must access eLMS and self-assign the briefing.

Note: Federal Aviation Administration (FAA) employees and contractors can access the briefing video using the FAA YouTube channel, but completion credit can only be achieved through eLMS.

<sup>1.</sup> The matrix depicts required SMS and SRM training for ATO employees. In addition to the required training included in the matrix, the SRMGSA briefing is recommended for all acquisition change proponents. A full description of all training is included below.

- (4) Prerequisite. None.
- (5) Recurring Requirement. This briefing has a two-year recurring requirement.

## b. ATO Safety Management System (SMS) and Safety Risk Management (SRM) for Safety Stakeholders (FAA50338002).

- (1) Overview. The ATO Safety Management System (SMS) and Safety Risk Management (SRM) for Safety Stakeholders briefing provides an overview of the structure and requirements of the ATO SMS and describes how the ATO coordinates with safety stakeholders to execute the SRM component of the SMS. This briefing describes the SRM process as an integral part of the system and presents strategies for promoting a robust safety culture within the ATO. It provides safety stakeholders with an understanding of their roles and responsibilities when participating in the ATO SRM process. This briefing is a prerequisite for the ATO SRM Panel Member Workshop.
- (2) Target Audience. ATO employees and contractors serving in any ATO SRM panel role (e.g., change proponents, panel members, subject matter experts, and observers) are required to complete the briefing prior to participating on a panel.

Note: Safety and Technical Training (AJI) recommends that all non-ATO employees and contractors participating on an ATO SRM panel in any capacity complete the briefing video to gain a better understanding of the SRM process, roles, and responsibilities.

(3) How to Obtain the Training. ATO employees and contractors must access this briefing video through eLMS to receive completion credit. All non-ATO employees that have access to eLMS can receive completion credit if the briefing is accessed through eLMS.

Note: FAA employees and contractors can access the briefing video by using the FAA YouTube channel, but completion credit can only be achieved through eLMS.

- (4) Prerequisite. None.
- (5) Recurring Requirement. This briefing has a two-year recurring requirement.

#### c. ATO SRM Panel Member Workshop (FAA50338001).

- (1) Overview. The ATO SRM Panel Member Workshop is a web-based workshop that prepares SRM panel members to participate on ATO SRM panels. The workshop provides SRM panel members with a practical understanding of the ATO SRM process and describes what to expect before, during, and after participation on an SRM panel.
- (2) Target Audience. All ATO employees and contractors are required to complete the workshop prior to participating as a panel member on an ATO SRM panel.

Note: AJI recommends that non-ATO FAA employees and contractors and non-FAA employees that have access to eLMS complete the workshop prior to participating as a panel member.

- (3) How to Obtain the Training. This training is available on eLMS.
- (4) Prerequisite. ATO Safety Management System (SMS) and Safety Risk Management (SRM) for Safety Stakeholders (FAA50338002).
  - (5) Recurring Requirement. The workshop has a two-year recurring requirement.

## d. Safety Risk Management (SRM) Panel Facilitation Refresher Course (FAA50338021).

- (1) Overview. The Safety Risk Management (SRM) Panel Facilitation Refresher Course is a web-based course that provides continuous learning to ATO SRM panel facilitators. This training provides facilitators with a refresher on SRM pre-panel activities and responsibilities, the roles and duties associated with facilitating ATO SRM panels, and effective facilitation tools and techniques to apply to the SRM process during panels.
- (2) Target Audience. This training is required for all employees designated to perform ATO SRM panel facilitator and co-facilitator roles.
  - (3) How to Obtain the Training. This training is available on eLMS.
  - (4) Prerequisite. ATO SRM Panel Facilitation Course (FAA66000026).
  - (5) Recurring Requirement. This training has a two-year recurring requirement.

## 2. Instructor-Led Training.

- **a.** The training schedule for the instructor-led courses is available on the <u>ATO SMS</u> Toolbox.
- **b.** Participants must attend the entire training session and pass the end-of-course examination with a grade of 70 percent or higher to receive credit for each course.
- **c.** All contractors are required to complete and submit an approved and signed Support Contractor Authorization form to request FAA training in accordance with the Acquisition Management System (AMS). Contractors will NOT be enrolled in a course until the Safety Policy Team, AJI-311, has received the signed Support Contractor Authorization form.

#### d. ATO SRM Practitioner Course (FAA66000025).

- (1) Overview. The SRM Practitioner Course is an instructor-led course designed to provide participants with the knowledge, skills, and tools needed during the SRM process, which are derived from the SMS Manual. At the conclusion of the course, participants will be able to apply these skills when involved in SRM activities.
- (2) Target Audience. This training is required for employees and contractors designated to perform ATO SRM panel facilitator and co-facilitator roles and recommended for any ATO employees and contractors involved in the SRM process.

- (3) How to Obtain the Training. Federal employees and contractors must follow the <u>SRM Training Registration Process</u> available on the <u>ATO SMS Toolbox</u>.
- (4) Prerequisite. Managing Safety (FAA50338003) and ATO Safety Management System (SMS) and Safety Risk Management (SRM) for Safety Stakeholders (FAA50338002).
  - (5) Recurring Requirement. None.

### e. ATO SRM Panel Facilitation Course (FAA66000026).

- (1) Overview. The ATO SRM Panel Facilitation course is an instructor-led course designed to teach participants techniques for applying SRM concepts derived from the SMS Manual and facilitating SRM panels through the five-phase SRM process. This course provides the knowledge, skills, and techniques essential for facilitating SRM panels.
- (2) Target Audience. Required for employees designated to perform ATO SRM panel facilitator and co-facilitator roles.
- (3) How to Obtain the Training. Federal employees and contractors must follow the SRM Training Registration Process available on the ATO SMS Toolbox.
  - (4) Prerequisite. Prerequisites for this course include:
    - (a) ATO SRM Practitioner Course (FAA66000025).
- (b) Prior to registering for the ATO SRM Panel Facilitation course, employees must be recommended in writing by the appropriate Service Center Quality Control Group Manager or the Manager of the Safety Management Group, AJI-31.
  - (5) Recurring Requirement. None.

## f. Introduction to the ATO Safety Risk Management Guidance for System Acquisitions (SRMGSA) Briefing (FAA66000031).

- (1) Overview. The ATO Safety Risk Management Guidance for System Acquisitions (SRMGSA) Briefing provides an overview of the ATO SMS and reviews the key components of the SRMGSA.
- (2) Target Audience. FAA employees and contractors supporting programs going through the AMS.
- (3) How to Obtain the Training. Federal employees and contractors must follow the <u>SRM Training Registration Process</u> available on the <u>ATO SMS Toolbox</u>.
  - (4) Prerequisite. None.
  - (5) Recurring Requirement. None.

### 3. ATO SRM Panel Facilitator Requirements.

- **a.** Training Requirements. Employees must successfully complete the SRM Practitioner Course (FAA66000025) and the SRM Panel Facilitation Course (FAA66000026).
- **b.** On-the-Job Training. Employees must serve as a co-facilitator on one ATO SRM panel before serving as a facilitator.
- **c.** Refresher Requirement. Employees designated to perform ATO SRM panel facilitator and co-facilitator roles are required to complete the Safety Risk Management (SRM) Panel Facilitation Refresher Course (FAA50338021) through eLMS every two years after completing the SRM Panel Facilitation Course (FAA66000026).