U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Air Traffic Organization Policy

**ORDER
JO 1000.39A**

11/02/09

SUBJ: Air Traffic Organization En Route and Oceanic Services Safety Management System

The United States has the safest, yet most complex aviation system in the world. To maintain and improve the safety of the National Airspace System (NAS), the Federal Aviation Administration (FAA) assigns the highest priority to improving safety, with the fundamental purpose of minimizing unacceptable risk from the NAS. As changes to the NAS become more complex—involving more systems and cross-organizational relationships—safe Air Traffic Control (ATC) and navigation services become even more crucial. The introduction of new systems and technologies into the NAS and changes to existing systems will require new safety policies and processes. Accordingly, the FAA is implementing an integrated Safety Management System (SMS) within the Air Traffic Organization (ATO). The SMS integrates new safety elements into current ATO safety processes, procedures, policies, and programs. With the SMS, ATO can ensure the highest level of safety as it continues to improve services.

Three FAA Orders require the implementation and operation of SMS within the FAA and ATO: FAA Order 8000.369, *Safety Management System Guidance*, which provides guidance for implementation of a common SMS within the FAA; FAA Order 1100.161, *Air Traffic Safety Oversight,* which establishes the oversight relationship between the ATO and the Air Traffic Safety Oversight Service (AOV); and ATO Order JO 1000.37, *Air Traffic Organization, Safety Management System*, which defines the policy, application, and supporting documents of the SMS in the ATO. Key elements of the SMS are also required by the International Civil Aviation Organization (ICAO) Annex 11, to which the United States is a signatory. As an operational Service Unit in the ATO, En Route and Oceanic Services (AJE) is implementing the SMS to comply with the requirements of ICAO, the FAA, AOV, and ATO.

This order defines the policy, priorities, application, and supporting documents of the SMS within AJE to ensure its successful implementation by March 14, 2010 and to ensure we maintain SMS compliance as we move forward. The order identifies the strategic and tactical safety responsibilities of AJE employees and the safety processes involved with AJE navigation and ATC services. Finally, it discusses the SMS requirements and safety standards under which the AJE operates.

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Chapter 1. General Information

1. Purpose of this Order. This order provides guidance for completing the implementation and for continuous improvement of the Safety Management System (SMS) requirements within the Air Traffic Organization (ATO) En Route and Oceanic Services (AJE).

2. Audience. All En Route and Oceanic employees.

3. Where Can I Find this Order. You can find this order on My FAA website: https://employees.faa.gov/tools_resources/orders_notices/

4. Effective Date. This order is effective December 1, 2009.

5. Background.

   a. The Federal Aviation Administration (FAA), in accordance with its international civil aviation responsibilities, must implement formal SMS, including Safety Risk Management (SRM) procedures for evaluating potential safety hazards associated with changes to the National Airspace System (NAS). Each ATO Service Unit is tasked with the responsibility for establishing safety policy and procedures, promoting a positive safety culture, implementing SRM procedures, and ensuring and assessing the safety of the NAS

   b. This order recognizes FAA, Air Traffic Safety Oversight Service (AOV), and ATO orders, policies, procedures, the *ATO SMS Manual* and the *Safety Risk Management Guidance for System Acquisitions (SRMGSA)* as providing the standards and requirements for the SMS.NAS

6. Scope.

   a. The NAS comprises documents, personnel, procedures, systems, and services used to provide Air Traffic Control (ATC) and navigation services. This order applies to all components of the NAS owned and/or operated by AJE and to every level of AJE. SMS includes a monitoring function to ensure recommended safety mitigations are implemented and operate as expected (a process sometimes referred to as a closed-loop process). The analysis, treatment, and monitoring of hazards often require coordination among multiple organizations. SMS orders, guidance materials, and implementation plans developed within AJE detail the processes and interactions among Service Units, Service Areas, Service Centers, Air Route Traffic Control Centers (ARTCCs), Combined Center Radar Approach Controls (CERAPs), the William J. Hughes Technical Center (WJHTC) and other organizations necessary to meet the requirements of this order.

   b. SMS focuses on the safe provision of ATC and navigation services. SMS does not, however, address occupational safety, e.g., the Occupational Safety and Health Administration (OSHA), physical security, or information security, because the FAA has robust programs in place for those areas. Nevertheless, when an SRM panel identifies OSHA and/or security issues, the panel should report them to management for sending to the proper office those areas.

7. Purpose and Objectives. The purpose of SMS and this order is to ensure AJE accepts identified and adequately mitigated (accordant with the *ATO SMS Manual and SRMGSA)* risks into the NAS and, then, only after 1) those risks have been mitigated to an acceptable level and 2) plans have been developed for monitoring the mitigations as required by the *ATO SMS Manual and SRMGSA*. This order identifies four objectives to achieve its stated purpose. The objectives correspond to the four components of SMS, as detailed in ATO Order JO 1000.37. The objectives are summarized below:

   a. Safety Policy. AJE employees must understand and apply relevant safety policies. Implementation and support of these safety policies mandate that AJE managers at all levels commit to high safety performance. They must lead by example in AJE's efforts to continually improve safety in all aspects of providing ATC and navigation services. All AJE employees must establish and support safety objectives that are measurable and achievable. All AJE systems must follow the safety processes as required by the *ATO SMS Manual and the SRMGSA.*

   b. Safety Risk Management. AJE employees must assess for safety risks, prior to implementation, any changes to system design, operations, and/or procedures in the regular performance of their duties. They must incorporate safety risk assessments and mitigation strategies into their task performance. These assessments are required by, and must be compliant, with all elements of the SMS policies and procedures. These assessments must identify risks to safety and either eliminate those risks, or develop controls that will manage the risks to an acceptable level throughout the lifecycle of the system. System users must be involved in the decision process for risk identification and mitigation and must be kept informed on the status of safety considerations. When safety risks associated with proposed changes are identified, AJE employees must formally document the analysis and acceptance of these risks in a SRM Document (SRMD). The hazards must be entered into the hazard database provided by the ATO Office of Safety (AJS), accordant with the SMS requirements. If it is determined that no additional SRM analysis is required for the proposed change, AJE employees must document and justify this information in a SRM Decision Memorandum (SRMDM).

   c. Safety Assurance. Safety assurance facilitates the continuous improvement across the SMS. AJE employees must continuously assess and monitor operations and performance of systems, processes, and procedures in the NAS. This must be done to identify and report hazards, assess these hazards, maintain controls effectively throughout the system lifecycle, and ensure new hazards have not been introduced into the NAS. AJE employees must consider and use historical hazard data when available, including "lessons learned" from other applications, as well as current data points, to analyze and identify trends. Data gathering, tracking, and analysis should be conducted at the lowest possible level. If analysis of safety data identifies a concern, action must be taken to mitigate the issue, ongoing analysis must be performed to assess the effectiveness of that action, and if the action results in a change to the NAS, SRM must be conducted. AJE employees must also support SMS activities in order to maintain compliance, including general SMS roles and responsibilities, internal and external audits, and evaluations.

   d. Safety Promotion. AJE management must support awareness and the importance of complying with this order by all AJE employees. AJE management must sponsor and disseminate orders, policies, procedures, processes, training, and other activities that will

continuously improve safety. In addition, AJE management must support and encourage the use of a non-punitive reporting system for the identification of safety concerns. AJE employees must promote a positive safety culture by shaping new attitudes, processes, and structures affecting individuals and the organization. AJE employees must document "lessons learned" utilizing an ATO-wide database.

8. Requirements.

　　a.　Implementation of the SMS within AJE must be completed by March 14, 2010. The AJE Implementation Plan describes implementation activities and timeframes to achieve SMS compliance. Upon implementing SMS, a strategy will be developed to ensure continuous improvement of AJE's SMS. This strategy will support key objectives to ensure that we maintain and enhance AJE's SMS as well as increase the safety of the NAS.

　　b. While the ATO Order JO 1000.37 provides SMS implementation requirements, this order provides specific requirements for all levels of AJE to use the SMS. This order will be revised as the ATO SMS processes and requirements evolve and mature in accordance with FAA Order 1100.161, FAA Order 8000.369, ATO Order JO 1000.37, *ATO SMS Manual,* and the *SRMGSA*

Chapter 2. Responsibilities

1. The entire AJE Organization is responsible for implementing and improving the SMS. The AJE Safety and Operations Support Directorate manages and leads the AJE SMS implementation and continuous improvement effort. The Safety Director is responsible for ensuring all AJE organizations support and comply with the SMS. The Safety Manager is responsible for coordinating the SMS effort. The following are the AJE SMS roles and responsibilities:

    a. Vice President

        (1) Promote a safety culture that comprises new attitudes, processes, and structures affecting individuals and the organization

        (2) Allocate sufficient resources, funding, and personnel to implement and maintain the SMS

        (3) Accept risks for hazards assessed with an initial high risk accordant with the *ATO SMS Manual* and the *SRMGSA*

    b. Safety Director

        (1) Responsible for implementing and supporting the four elements of the SMS: Safety Policy, SRM, Safety Assurance, and Safety Promotion

        (2) Facilitate intra- and inter-Service Unit coordination on safety-related matters

        (3) Provide input and advice on safety to the Service Unit Vice President and other leaders

        (4) Act as the Service Unit's liaison with AJS

        (5) Direct resources (funding and personnel) for SMS implementation and operation

        (6) Accept risks for hazards assessed with initial low or medium risks accordant with the *ATO SMS Manual* and the *SRMGSA* for national changes

        (7) Promote a safety culture that comprises new attitudes, processes, and structures affecting individuals and the organization

        (8) Formulate safety policies and guidance for AJE

    c. Safety Manager

        (1) Monitor the AJE SMS Implementation Plan that supports the four elements of the SMS: Safety Policy, SRM, Safety Assurance, and Safety Promotion

(2) Conduct Service Unit safety planning and monitoring to ensure SMS compliance is maintained for AJE

(3) Promote a safety culture that comprises new attitudes, processes, and structures affecting individuals and the organization

(4) Provide support/consultation on safety management within the Service Unit to ensure proper implementation and application of the SMS

(5) Approve SRMDs accordant with the *ATO SMS Manual* and the *SRMGSA*

(6) Approve SRMDMs accordant with the *ATO SMS Manual* and the *SRMGSA*

(7) Facilitate intra- and inter-Service Unit coordination on safety-related matters

(8) Provide input and advice on safety to the AJE Safety Director

(9) Collect, track and analyze safety data applicable to AJE accordant with ATO Order JO 1000.37

(10) Monitor and track hazards and associated mitigations using the hazard tracking database provided by AJS

(11) Conduct internal SMS audits

(12) Attend and participate, as appropriate, in safety-related meetings with AJS

(13) Establish competency and/or training requirements as appropriate for Safety Engineers and SMS Points of Contact (POCs)

(14) Ensure all personnel complete applicable SMS training

(15) Develop and maintain an SMS improvement strategy

(16) Coordinate with AJS, AOV, International Civil Aviation Organization (ICAO), and other organizations that may audit the implementation and application of SMS within AJE

d. Safety Engineer

(1)   Support, advise, and assist program teams in applying SRM tools and techniques

(2)   Develop necessary process revisions, guidance materials, directive/handbook updates to apply the SRM process within AJE

(3) Meet the competency and training requirements established by the Safety Manager

(4) Ensure all applicable personnel participate in SRM training before they perform SRM assessments

(5) Review completed SRM documents (with all necessary supporting safety studies, reports, etc.) and coordinate with AJS and AOV, as appropriate

(6) Make recommendations to the Safety Manager on safety documents

e. **Directors**

(1) Responsible for implementing and supporting the four elements of the SMS: Safety Policy, SRM, Safety Assurance, and Safety Promotion within their areas of responsibility

(2) Monitor and account for the safety performance of the NAS in their areas of responsibility

(3) Approve SRMDs

(4) Encourage employees to report safety concerns

(5) Ensure their areas of responsibility meet the SMS requirements accordant with the *ATO SMS Manual*, *SRMGSA*, and related orders, processes, and documentation

(6) Promote a safety culture that comprises new attitudes, processes, and structures affecting individuals and the organization

(7) Provide support for internal audits and reviews conducted by the AJE Safety Manager, and for external audits conducted by AJS, AOV, and ICAO

(8) Identify an SMS POC and a backup

(9) Monitor and track hazards and associated mitigations using the hazard tracking database provided by AJS

(10) Provide signed copies of SRMDs and SRMDMs to the AJE Safety Engineer

(11) Establish a records retention process to ensure SRMDMs, SRMDs, and other relevant safety documents and updates are cataloged and saved

(12) Ensure all personnel complete applicable SMS training

f. **Air Traffic Managers**

(1) Responsible for implementing and supporting the four elements of the SMS: Safety Policy, SRM, Safety Assurance, and Safety Promotion within their areas of responsibility

(2) Monitor and account for the safety performance of the NAS in their areas of responsibility

(3) Approve SRMDMs

(4) Accept risks for hazards assessed with initial low or medium risks accordant with the *ATO SMS Manual*

(5) Ensure their areas of responsibility meet the SMS requirements accordant with the *ATO SMS Manual*, and related orders, processes, and documentation

(6) Monitor and track hazards and associated mitigations using the hazard tracking database provided by AJS

(7) Provide signed copies of SRMDs and SRMDMs to the AJE Safety Engineer

(8) Encourage employees to report safety concerns

(9) Promote a safety culture that comprises new attitudes, processes, and structures affecting individuals and the organization

(10) Establish a records retention process to ensure SRMDMs, SRMDs, and other relevant safety documents and updates are cataloged and saved

(11) Identify an SMS POC and a backup

(12) Work with the AJE Safety Engineer to ensure all technical personnel/specialists in their organizations have completed the training for SRM practitioners

(13) Ensure all personnel complete applicable SMS training

(14) Provide support for internal audits and reviews conducted by the AJE Safety Manager, and for external audits conducted by AJS, AOV, and ICAO

g. Headquarters/WJHTC Managers/Supervisors

(1) Responsible for implementing and supporting the four elements of the SMS: Safety Policy, SRM, Safety Assurance, and Safety Promotion within their areas of responsibility

(2) Work with the AJE Safety Engineer to ensure all technical personnel/specialists in their organizations have completed the training for SRM practitioners

(3) Ensure all personnel complete applicable SMS training

(4) Promote a safety culture that comprises new attitudes, processes, and structures affecting individuals and the organization

(5) Review SRMDs

(6) Approve SRMDMs

(7) Encourage employees to report safety concerns

(8) Provide support for internal audits and reviews conducted by the AJE Safety Manager and for external audits conducted by AJS, AOV, and ICAO

(9) Establish a records retention process to ensure SRMDMs, SRMDs, and other relevant safety documents and updates are cataloged and saved

(10) Provide signed copies of SRMDs and SRMDMs to the AJE Safety Engineer

(11) Monitor and track hazards and associated mitigations efforts using a hazard tracking database provided by AJS

h. SMS POCs

(1)   Support the four elements of the SMS: Safety Policy, SRM, Safety Assurance, and Safety Promotion

(2)   Promote a safety culture that comprises new attitudes, processes, and structures affecting individuals and the organization

(3)   Receive and disseminate SMS information and coordinate SMS activities

(4)   Participate in the AJE SMS POCs telecon as required

(5)   Provide support for internal audits and reviews conducted by the AJE Safety Manager, and for external audits conducted by AJS, AOV, and ICAO

(6)   Work with the AJE Safety Engineer to ensure all technical personnel/specialists in their organizations have completed the training for SRM practitioners

(7)   Ensure all personnel complete applicable SMS training

i. Employees

(1)   Comply with established safety standards, the SMS, and any safety directives issued by AJE, AJS, and/or AOV within their areas of responsibility

(2)   Promote a safety culture that comprises new attitudes, processes, and structures affecting individuals and the organization

(3)   Report safety concerns

(4)   Complete applicable SMS training

Chapter 3. Administrative Information

1. Distribution. The Office of AJE Safety and Operations Support will distribute this order to AJE Washington Headquarters, the WJHTC, Service Areas, Service Centers, ARTCCs, and CERAPs.