



## Request for Private Sector Participation

### Requesting Team/Organization

Safety Working Group (WG)

### WG Co-Leads (Name and Phone)

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### Brief Description of the Team's Task

The Joint Planning and Development Office (JPDO) Safety WG's mission is to support the development of an integrated Next Generation Air Transportation System (NextGen), with the goal to improve the current level of safety of the air transportation system while supporting increased demand for and use of the system.

The objectives of the Safety WG mission are to:

- Create a national-level integrated safety management approach that addresses all facets of the air transportation system and build safety design assurances into operations and products
- Establish an ongoing, integrated, operational information analysis capability to proactively identify and resolve safety concerns before incidents occur
- Establish and track a safety improvement culture where safety and its continuous improvement are seen as the primary goals
- Lead and manage research efforts to determine national safety strategy
- Establish the safety management practices that will be adhered to by the JPDO Working Groups and divisions in the planning and development of NextGen concepts and products.

In order to fulfill its mission, the Safety WG has created three subgroups to focus on framework elements: Aviation Safety Strategic Plan (ASSP) Standing Committee (SC), Aviation Safety Information Analysis and Sharing (ASIAS) SC, and Safety Management System (SMS) SC.

The SME SC has two Study Teams (ST) requiring additional expertise with broad safety related backgrounds in either the academic environment or in the practical application of safety principles within an aviation related field, or a field with translatable safety skills.

### Tasks and Timeframes

FY08 tasks include:

1. Develop the Aviation Safety Strategic Plan (ASSP) for SPC approval (Oct 08)
2. Develop the Safety Management System (SMS) Standard for SPC approval (Jul 08)
3. Develop Safety Culture Improvement Plan (Sep 08)
4. Sponsor/support further research to refine safety culture recommendations (Sep 08)
5. Support high-level NextGen integrated assessments (ongoing)
6. Perform safety assessments of NextGen concepts, products and operational improvements (ongoing)
7. Conduct outreach to promote Safety WG products (ongoing)

## Required Expertise and Skill Mix

The WG requires individuals with the following expertise or perspectives:

- Representative(s) from academia involved in aviation research (e.g. software safety, weather, air traffic and organizational culture) or safety assessment/analysis
- Experience in performing technical safety assessments of operational concepts and systems proposed for NextGen. Preferably with an engineering or technical background who are experienced and knowledgeable with air traffic management and/or flight operations and associated systems.
- Human Factors expert(s) with experience in aviation safety
- Extensive aircraft and system safety experience
- Keen knowledge of voluntary safety information process (e.g., ASIAs)
- Keen knowledge of aircraft certification, especially as related to safety
- Expert on using subject matter expertise and modeling to identify key problems and solutions

Skills:

- Successful leadership of small to medium size teams of multi-discipline engineers and operators
- Success in resolving complex problems and issues that involve technical, political, economic, and social impacts
- Applying the tools and techniques of aerospace system safety to find, communicate, analyze, and mitigate hazards and their risks

Attributes:

- Knowledge of industry best practices
- Connections to industry leadership
- Knowledge of own company's concerns, leanings, internal/external workings, and desires
- Access to safety relevant data and information (culture, safety assessments, "failure" data, etc.)
- Leadership
- Teamwork
- Ability to prioritize competing issues
- Ability to focus on the most important issues
- Mission oriented
- Integrity
- Proactive
- Principled

### **Expected Time Commitment of Participant– duration and level of effort**

Level of Effort: The WG has one 2-day meeting per month. SC meeting schedules vary but average twice per month, including face-to-face meetings and teleconferences. Attendance at the monthly full WG face-to-face meeting is not mandatory as some team members perform most of their work at the SC and ST level. Participants will need to spend time outside of meetings reading WG e-mails and preparing materials for teleconferences/meetings that are expected to occupy about one day per week or less depending on events. Participants may also need to interface with other WGs, develop training material, conduct training, and perform/lead Safety analyses and other activities. Duration: Participants are asked to commit to serve a minimum term of one year.

### **Additional Information**

Required attributes of WG, SC, ST members: [WG or SC members?]

- Able to share their expertise on stakeholder perspectives (includes direct access to key leaders in represented constituency)
- Able to support the WG in external forums, journals and papers as it pertains to their area of expertise and stakeholder background
- Able to transcend parochial interests of represented constituency and take a national/international perspective
- Willing to challenge/test their own beliefs and assumptions
- Commitment to maintain privacy of WG work products until release by the WG/JPDO
- Able to attend (or participate via teleconference) most WG meetings (during the first year)

Preferred attributes of WG members

- First priority assignment of individual
- Believes in the need for transformation

More information on the NextGen JPDO can be found at <http://www.jpdo.gov>

## **Attachment 1: Transformation direction**

### **Safety WG Transformation Direction**

- Develop a comprehensive approach to safety across the system-of-systems at the national level
- Develop a comprehensive set of safety management principles and practices to establish a common framework for the aviation community:
  - Create an integrated safety doctrine and program standards, and define a national comprehensive safety management doctrine and terms of reference
  - Develop the means to forecast and manage safety risks; apply advanced safety/risk analysis methodologies, including those from other industries, to design new operations and systems to target levels of safety; identify and model accident precursors; identify and model incident investigations as they apply to the safety management system — how incident investigations are used to identify hazards
- Ensure an evolution of present certification, testing, and inspection of individual system elements to comprehensive approvals of operators' and manufacturers' safety management programs:
  - Compliance with regulations is still the basis for future system safety management
  - Promote the evolution to a comprehensive system management approach to certification
  - Once safety management systems programs are approved, the industry and government users are responsible for safety assurance for products, policies, procedures, practices, and training. The regulatory authority does not abdicate its public safety obligations but rather, shifts regulatory focus to proactive implementation of corrective measures based on hazard analysis, operational data analysis, and risk modeling and monitoring
- Promote safety through training, sharing of safety information, and dissemination of lessons learned:
  - Create a standardized information integration capability to be shared among the aviation community
- Establish a non-punitive reporting system relieving concerns of corrective action processes