



**FAA**  
Air Traffic Organization

# Office of **Safety**



## Safety Blueprint

*April 2009*



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## Foreword

The safety of the National Airspace is our most important priority. Our objective is to continually improve our safety performance while we transition to the Next Generation Air Transportation System (NextGen). To do this, we will need a strong safety management system.

History demonstrates that we must be poised to handle future demand that will surely return as the nation's economy improves. In fact, the aviation sector will be an important factor in the nation's economic recovery. The FAA estimates that in 2006, civil aviation accounted for 11 million jobs and represented 5.6 percent of the gross domestic product. At \$61 billion, aerospace products and parts contributed more to the positive balance of trade than any other sector—\$32 billion more than the next highest contributor.

With so much riding on our service, we are constantly working to increase the safety of an already exceedingly safe system. To do this, we are making a transition from the traditional forensic investigations of accidents and incidents to a prognostic approach to improving safety. We are committed to building a positive safety culture, with an open exchange of pertinent safety information. Transparency has never been more important.

This Safety Blueprint outlines our commitment to safety during this critical transition.

Sincerely,



Hank Krakowski, Chief Operating Officer  
Air Traffic Organization



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## 1.0 Safety Commitment

The primary service of the Air Traffic Organization (ATO) is to move air traffic safely and efficiently. Our customers are commercial, general aviation and the military. Our employees are the service providers—the controllers, technicians, engineers and support personnel whose daily efforts keep aviation moving.

We pride ourselves on our safety record. With more than 7,000 takeoffs and landings per hour, and more than 660 million passengers and 37 billion cargo revenue ton miles of freight a year, the men and women of the ATO safely guide approximately 50,000 aircraft through the National Airspace System (NAS) every day.

## 2.0 Safety Performance

We are committed to introducing new technologies to facilitate and record our safety performance. We are also committed to improving our comprehensive incident reporting and investigation processes and to reduce risk through continuous improvement in our Safety Management System. Current operational error and runway incursion metrics do not distinguish between improved reporting and a degradation of safety.

As better technology and reporting systems are introduced we will develop a more comprehensive system to measure safety performance. Beginning in fiscal year 2010, these new safety performance metrics will enable us to better distinguish between improved reporting and a decline in safety.

In the next few months, we will introduce new safety performance metrics to change the current focus on the number of Category A and Category B errors, based on distance between targets, to a more robust metric that focuses not only on the percentage of separation loss but also on risk and incident rates. Such a change to a more sophisticated and risk-based metric will require enhanced event analysis and a link between risk data and correction of causal and contributing factors.

## 3.0 Safety Blueprint: The Air Traffic Organization's Strategic Plan For Safety

The safety level of America's air traffic system today reflects nearly 100 years of continual improvement in performance, technologies, and procedures. The FAA's goal is to make this system even safer. The ATO is committed to supporting that goal through the provision of safe and efficient air navigation services.

This document demonstrates that our commitment to safety is stronger than ever and describes what we need to accomplish in the upcoming years. Our Safety Blueprint is intended to keep our employees, customers and stakeholders informed of how we manage safety.

“The safety of the  
National  
Airspace  
is our most  
important priority.”

— *Hank Krakowski, COO  
Air Traffic Organization*



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### 3.1 Safety Strategy

Our strategy is to make the air traffic system even safer by improving our Safety Management System and, where appropriate, improving standards to achieve an even higher level of safety performance. We will focus on improving our understanding of risk through comprehensive incident and data analysis, and the establishment of voluntary reporting systems such as the Air Traffic Safety Action Program (ATSAP). We will also apply safety risk management principles to the introduction of new systems and procedures.

### 3.2 Summary Of Strategic Activities

Our activities focus on three themes.

1. Integrating Safety Management System (SMS) throughout the ATO.
2. Continuous Safety Improvement. This includes targeted activities that have immediate and direct impact on future safety performance as we proactively search for improvement and initiate corrective actions where appropriate.
3. Ensuring the Safe Transition to NextGen. This requires us to actively manage and help implement new technologies that improve safety performance.

To do this, we will strive to accomplish the following objectives, which will be supplemented with service unit level initiatives:

### Integrating SMS throughout the ATO

We commit to:

1. Improving management of safety accountability by ensuring successful implementation of SMS throughout the ATO by March 2010.
2. Developing tools to ensure air traffic managers are knowledgeable of local risks and understand how they are affected by local changes in standards such as waivers and safety logic changes.
3. Applying existing SMS guidance to specific safety challenges posed by NextGen.
4. Establishing a Corporate Safety Steering Group that includes those responsible for safety, technology, operations and training to facilitate implementation of ATO's safety performance initiatives and to help guide safety culture initiatives.
5. Increasing participation and capabilities of safety risk management panels evaluating major changes to the NAS to include all stakeholders.
6. Prioritizing SMS activities and initiatives.
7. Simplifying and improving safety risk management planning, development and approvals.
8. Increasing SMS education throughout the ATO.
9. Consulting and working with our regulator on endorsement and recognition of SMS activities.

### Continuous Safety Improvement

1. Improve safety performance capabilities and analysis of events by completing deployment of Traffic Analysis Review Program (TARP) and promoting the use of Performance Data Analysis and Reporting System (PDARS) through better training of facility representatives. Additionally, we will implement a new database to track all known hazards and centralize data storage to facilitate a more comprehensive analysis of safety performance. We will also make better use of existing tools for meaningful trend analysis of data.
  2. Seek to reduce the risk associated with losses of separation, airspace design and waivers through the use of analytical technologies (TARP, PDARS) and the implementation of comprehensive corrective actions as an essential element of our SMS.
  3. Implement programs to increase our safety culture and engage the workforce in developing and suggesting safety improvements, such as ATSAP.
  4. Reduce the risk associated with runway incursions through partnerships between the FAA and stakeholders, enhancements to root-cause analysis of incidents, implementing and investing in new technologies and seeking international harmonization of standards for NextGen transformation.
  5. Study human error and establish improvements to identify and reduce the causes and contributing factors of errors. Interview controllers and partner with the Civil Aerospace Medical Institute (CAMI)
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to reduce the likelihood of incidents through better human factors analysis. Provide Crew Resource Management (CRM) programs.

6. Develop and track all safety issues (e.g., risk hazard database), with a yearly commitment to address or fix the top five of those issues.
7. Develop an electronic database “portal” to provide facility managers and others with training and safety trend information and a library of safety and training resources.
8. Work jointly with our regulator on improving safety processes, e.g., credentialing/training, audits and addressing known safety issues.

#### **Ensuring the Safe Transition to NextGen**

We commit to:

1. Increasing our understanding of risk by improving the ATO’s safety culture.
2. Increasing safety through the implementation of surveillance broadcasting systems to manage surface traffic at airports.
3. Actively participating and facilitating the development of an integrated safety risk management for NextGen.
4. Working with our regulator to obtain early concurrence on the scope and requirements for an integrated safety case that encompasses technological developments that affect airport, aircraft and air navigation services.
5. Continuing to invest in enhancements to technology to add an additional layer of safety.

6. Ensuring that risk analysis is done on all new enhancements to the NAS throughout the transition to NextGen.
7. Cooperating with airlines, airports, other air navigation service providers and with the International Civil Aviation Organization to harmonize standards and to develop joint safety improvements.

## **4.0 Relationship Between Documents**

The 2009 Safety Blueprint provides an overview of the ATO’s safety strategy. This document draws high-level direction from the FAA’s Flight Plan to ensure it is in alignment with the overall agency vision. The Safety Blueprint outlines the ATO’s key safety objectives and initiatives.

The Safety Blueprint incorporates high-level goals, objectives and initiatives from each of the ATO service units, reflecting a comprehensive ATO safety strategy. Because of the commonality of safety initiatives, this document is organized by themes. Service units within the ATO will support these broader safety initiatives with additional, service unit-specific activities.

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## 5.0 Office Of Safety

Established in 2004, the Office of Safety is delegated the primary responsibility for safety assurance within the ATO. The Office of Safety is responsible for ensuring that all ATO service units integrate safety responsibilities into their provision of service.

The Office of Safety works with operational service units to lead ATO efforts to manage risks, assure quality standards, instill an open culture of disclosure, educate employees and promote continuous improvement.

Responsible for identifying and mitigating aircraft collision risks during the delivery of air traffic separation services, the Office of Safety is the focal point for:

1. Applying the agency's SMS principles.
2. Auditing safety, quality assurance and quality control in the ATO and reporting findings to improve safety performance.
3. Integrating the functions and information of risk reduction, investigations, evaluations, independent operational testing and evaluation, safety risk management, runway safety and operational services, in order to identify collision risks and influence their resolution.
4. Providing information on assessments of operational and safety performance within the NAS.
5. Working with the Associate Administrator for Aviation Safety and other external entities undertaking special projects in support of increasing the safety of the NAS.

## 6.0 Conclusion


The Office of Safety will strive to work closely with ATO service units to identify additional safety initiatives. This Blueprint for Safety will be updated annually to ensure our efforts reflect the agency's safety priorities.

“Moving forward,  
we must be the catalyst for creating a  
**fundamental  
safety culture**  
throughout the ATO.

We want each individual at  
every level of the ATO  
to hold safety as an  
**enduring value  
and priority.”**

— *Bob Tarter, Vice President  
Office of Safety*





The Office of Safety works with  
operational service units to lead ATO efforts to  
**ensure**  
the safety of America's air traffic services.