

# F A A   S T R A T E G I C   P L A N



JANUARY 2002



# FAA Strategic Plan



**FAA Mission: Ensuring Safe, Secure, Efficient Flight.**

## OVERVIEW of Goals, Objectives, Strategies, and Corporate Projects

FAA's Mission-Driven Goals		
SAFETY	SECURITY	SYSTEM EFFICIENCY
<p>Reduce fatal aviation accident rates by 80 percent in ten years</p> <p><b>Objectives</b>            ? By 2007, reduce commercial aviation fatal accident rate 80%            ? Limit general aviation accidents to 350 in FY 2007.</p> <p><b>Strategies:</b>            ? Accident Prevention (Safer Skies)            ? Information Sharing            ? Certification and Surveillance</p> <p><b>2002 Corporate Projects</b>            ? Safer Skies – Runway Safety            ? Safer Skies – Commercial            ? Safer Skies – GA            ? GPS Implementation            ? Air Transportation Oversight (ATOS)            ? Space Transportation Safety            ? Aviation Safety Action Program (ASAP)</p>	<p>Prevent security incidents in the aviation system</p> <p>New objectives and strategies will be determined by the Transportation Security Administration (TSA).</p> <p><b>2002 FAA Corporate Projects</b>            ? Transition of Security Functions to Transportation Security Administration (TSA)            ? Information Security</p>	<p>Provide an aerospace transportation system that meets the needs of users and is efficient in applying resources</p> <p><b>Objectives</b>            ? Increase system availability            ? Reduce rate of air travel delays</p> <p><b>Strategies</b>            ? Free Flight &amp; Operational Evolution            ? NAS Modernization            ? Systems integration</p> <p><b>2002 Corporate Projects</b>            ? Develop the Air Traffic Org (ATO)            ? Implement the Operational Evolution Plan (OEP)            - Free Flight Phases 1 &amp; 2            - National Airspace Redesign            - Improve Weather Information            ? STARS            ? RESTORE            ? En-Route Automation Modernization (ERAM)</p>

FAA's Organizational Excellence Goals			
PEOPLE	REFORM	ENVIRONMENT	GLOBAL LEADERSHIP
<p>Prepare the workforce for the demands of the 21<sup>st</sup> century</p> <p><b>2002 Corporate Projects</b>            ? Labor-Management Cooperation            ? Workforce Planning</p>	<p>Become more businesslike while increasing customer responsiveness</p> <p><b>2002 Corporate Projects</b>            ? Compensation Implementation            ? Clean Audit            ? Cost &amp; Performance Management / Cost Accounting            ? Achieve Major Procurement Program Goals (MPPG)</p>	<p>Maintain number of people exposed to aircraft noise at current levels</p> <p><b>2002 Corporate Projects</b>            ? Airplane Noise</p>	<p>Improve safety and security of the international aviation system</p> <p><b>2002 Corporate Projects</b>            ? See GPS Implementation under Safety</p>



## EXECUTIVE SUMMARY

The Federal Aviation Administration (FAA) and the aerospace community provide a transportation system that flies people and goods safely, securely, and efficiently to their chosen destinations worldwide.

**This Strategic Plan describes 3 aerospace goals derived from that mission and vision: safety, security, and system efficiency.** These goals stem directly from FAA's legal charter and the Department of Transportation's (DOT) Strategic Plan. FAA has defined long term objectives and strategies and near-term Corporate Projects to achieve each goal. Annual Performance Objectives and Corporate Projects are discussed in detail in the companion [FAA Strategic Plan Supplement](#).

**This year's update responds to 3 changes in the aerospace environment:**

1. The September 11, 2001 attack on America and the subsequent legislation transferring FAA security functions to a new Transportation Security Administration. Security remains a key FAA goal as FAA makes a smooth transfer.
2. The Air Traffic Organization (ATO), a Performance-Based Organization (PBO) within FAA. ATO has primary responsibility for FAA's System Efficiency goal. This Strategic Plan sets broad direction for ATO, whose planning must be closely linked to FAA's overall plans.
3. The General Accounting Office (GAO) May 2001 report, Managing for Results: Federal Managers' Views on Key Management Issues Vary Widely Across Agencies. GAO surveyed 100 FAA managers and supervisors, then rated FAA low on leadership commitment to achieving results and employees receiving positive recognition for helping the agency accomplish its strategic goals. In response, this plan addresses how ongoing FAA programs and activities contribute to achieving FAA's strategic goals.

### FAA Mission Goals: Safety, Security, and System Efficiency

**SAFETY: By 2007, reduce U.S. aviation fatal accident rates by 80 percent from 1996 levels.**

#### Objectives:

- **Reduce Fatal Air Carrier Accident Rate:** By 2007, reduce the U.S. commercial air carrier fatal accident rate per 100,000 departures by 80 percent.
- **Reduce General Aviation Fatal Accidents:** By 2007, limit U.S. general aviation fatal accidents to 350 per year.
- **Reduce Overall Aircraft Accident Rate:** Reduce the rate per 100,000 flight hours.
- **Increase Survivability:** Increase the probability that a passenger or flight crew member will survive a typical air carrier flight.

#### Strategies:

- **Accident Prevention:** Based on detailed analysis of the recurrent causes of accidents, prevent accidents before they happen through appropriate, targeted, systematic interventions in the aviation system.
- **Safety Information Sharing and Analysis:** Develop partnerships with the aviation community to share data and information supporting safe, secure aviation.
- **Certification and Surveillance:** Develop collaborative approaches to certification, surveillance, and inspection and targeting FAA resources to do the most good.

#### Corporate Projects:

- Safer Skies -- Runway Safety
- Safer Skies -- Commercial Aviation



- Safer Skies -- General Aviation
- GPS Implementation
- Air Transportation Oversight System (ATOS)
- Aviation Safety Action Program (ASAP)
- Space Transportation Safety

**SECURITY: Prevent security incidents in the aviation system.**

The September 11 attack and the decision to shift FAA's civil aviation security function to a new Transportation Security Administration is causing a profound change in FAA's security role. Yet, while the transfer takes place, FAA's security goal remains. FAA also remains responsible for the security of its information and facilities. FAA is helping hire and train security personnel and conduct security-related research. FAA will continue its involvement in security.

**Corporate Projects:**

- Transition of security functions to the Transportation Security Administration (TSA).
- FAA Information Systems Security Program

**SYSTEM EFFICIENCY. Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.**

**Objectives:**

- **Increase System Availability:** Increase the percentage of time a typical major facility or service is available to users of the National Airspace System (NAS).
- **Reduce System Delays:** Reduce the rate of aviation system delays, especially volume and equipment delays where FAA has more control, from a 1992-1996 baseline.

**Strategies:**

- **Free Flight and Operational Evolution:** Evolve the National Airspace System to implement Free Flight capabilities, eliminate choke points, and improve capacity.
- **NAS Modernization:** Using the NAS Architecture as the guideline, continually refine and update the NAS to achieve efficient aerospace systems and operations.
- **Systems Integration:** Integrate airport and commercial space requirements into NAS planning and architecture.

**Corporate Projects:**

- Air Traffic Organization (ATO)
- Operational Evolution Plan (OEP). Includes Free Flight, National Airspace Redesign, and Improve Weather Information for the National Airspace System.
- Standard Terminal Automation Replacement System (STARS)
- Revitalize Existing Structures, Technology, and Operational Resources (RESTORE)
- En Route Automation Modernization (ERAM)

There are also four **Organizational Excellence Goals** critical to accomplishing the FAA's mission. These goals and their strategies cut across all three of the mission goals.

**PEOPLE: THE FOUNDATION OF ACCOMPLISHMENT**

Provide a model work environment supporting the productive, diverse, and highly skilled work force needed to carry out the FAA mission into the 21st century. Strategies are:



- *Improving Intellectual Capital*
- *Managing the Diverse Work Force*
- *Improving Quality of Work Life*

Corporate Projects:

- Labor-Management Cooperation
- Workforce Planning

## REFORM: THE FRAMEWORK FOR ACCOMPLISHMENT

Fundamentally change the way the FAA operates by implementing personnel and acquisition reform and pursuing financial reform. FAA will focus on:

- *Acquisition Reform*
- *Personnel Reform*
- *Financial Reform*

Corporate Projects:

- Compensation Implementation
- Clean Audit
- Cost and Performance management/Cost Accounting System
- Major Procurement Program Goals (MPPG)

## THE ENVIRONMENT: OUR RESPONSIBILITY

Address what may represent the single greatest challenge to the continued growth and prosperity of civil aerospace as we enter the 21st century, focusing on:

- *Understanding Aerospace Environmental Impacts*
- *Reducing Aerospace Environmental Impacts*
- *Quantify And Mitigate Environmental Impacts Of FAA Activities*

Corporate Project:

- Airplane Noise

## GLOBAL LEADERSHIP: COMMITMENT TO WORLDWIDE IMPROVEMENTS

Improve safety, security, and system efficiency globally through:

- *International Safety Oversight*
- *Global Safety Action Plan*
- *Global Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) Development And Implementation*
- *International Regulatory Harmonization*

### Achieving The Vision Takes a Team:

FAA is dedicated to improving the **safety, security, and efficiency** of aerospace flight while protecting the environment and national security. The Air Traffic Organization (ATO) builds and operates the air traffic control system and sets procedures for its use. FAA's Office of Civil Aviation Security (ACS) has moved to the Transportation Security Administration, but FAA's Chief Information Officer strengthens information security and the ATO protects the security of FAA facilities. FAA's Regulation and Certification Organization (AVR) regulates aerospace use. FAA also works with users to improve the aerospace system. Safe, secure, efficient flight requires close FAA cooperation with all aerospace and transportation organizations, other Federal agencies, local communities, and the traveling and shipping public. This plan focuses on FAA activities, but also sets direction for the national air and space community operating worldwide.



## Table of Contents

<b>FAA STRATEGIC PLAN -- OVERVIEW .....</b>	<b>1</b>
<b>FAA STRATEGIC PLAN -- EXECUTIVE SUMMARY .....</b>	<b>2</b>
<b>TABLE OF CONTENTS.....</b>	<b>5</b>
<b>INTRODUCTION .....</b>	<b>6</b>
<b>FAA MISSION, VISION, AND VALUES .....</b>	<b>8</b>
<b>MISSION GOAL: SAFETY.....</b>	<b>9</b>
<i>Objectives:.....</i>	9
<i>Near Term Goals, Strategies for Change, and Corporate Projects.....</i>	10
<i>Ongoing FAA Actions that Support Safety.....</i>	11
<i>Transportation Community Involvement: .....</i>	12
<b>MISSION GOAL: SECURITY .....</b>	<b>13</b>
<i>Security remains a critical FAA strategic goal .....</i>	13
<i>Corporate Projects.....</i>	13
<i>Ongoing FAA Actions that Support Security .....</i>	14
<i>Transportation Community Involvement: .....</i>	14
<b>MISSION GOAL: SYSTEM EFFICIENCY .....</b>	<b>15</b>
<i>Objectives:.....</i>	15
<i>Near Term Goals, Strategies for Change, and Corporate Projects.....</i>	15
<i>Ongoing FAA Actions that Support System Efficiency .....</i>	16
<i>Transportation Community Involvement: .....</i>	16
<b>MAKING IT HAPPEN: ORGANIZATIONAL EXCELLENCE GOALS.....</b>	<b>18</b>
PEOPLE: THE FOUNDATION OF ACCOMPLISHMENT .....	18
<i>Indicators of Success: .....</i>	18
REFORM: THE FRAMEWORK FOR ACCOMPLISHMENT .....	19
THE ENVIRONMENT: OUR RESPONSIBILITY.....	20
GLOBAL LEADERSHIP: COMMITMENT TO WORLDWIDE IMPROVEMENTS .....	20
CROSS-CUTTING STRATEGIES FOR CONTINUOUS IMPROVEMENT .....	22
<b>ENSURING SUCCESS AND ACCOUNTABILITY.....</b>	<b>23</b>
<b>APPENDICES:.....</b>	<b>24</b>
A. ENVIRONMENTAL SCAN: KEY FACTORS AFFECTING FAA AND AEROSPACE .....	24
B. FAA SUPPORT FOR DOT STRATEGIC PLANNING.....	31
C. EVALUATIONS IN SUPPORT OF FAA STRATEGIC PLANNING.....	32
<i>Evaluations that have Supported This Strategic Plan.....</i>	32
<i>Scheduled Evaluations, Studies, and Reports .....</i>	40
D. FAA SUPPORT OF REQUIREMENTS OF THE GOVERNMENT PERFORMANCE AND RESULTS ACT OF 1993 (GPRA).....	41



## Introduction

*The Federal Aviation Administration (FAA)* consists of 48,000 people dedicated to improving the **safety, security, and efficiency** of aviation and commercial space transportation while protecting the environment and national security. The FAA, however, is only a part of the worldwide aerospace community. The FAA, through its Air Traffic Organization, operates an air traffic control system for the nation. FAA also regulates aerospace use. In addition, FAA leads, influences, and guides aerospace users. Safe, secure, efficient use requires cooperation with all aerospace and transportation, other Federal agencies, local communities, travelers and shippers. This plan focuses on FAA activities, but also sets direction, not just for FAA, but for the national air and space community in a global transportation environment.

*FAA's key aviation functions* under Title 49, United States Code are to:

- Regulate and encourage aviation safety and security;
- Develop, operate, and maintain a safe, secure, and efficient national air traffic management system;
- Collaborate in developing a safe, secure, efficient worldwide civil aviation system;
- Regulate air commerce to fulfill the requirements of national defense;
- Assist in development of airports; and
- Help mitigate adverse environmental impacts of aviation.

*FAA commercial space functions* specified in the Commercial Space Launch Act of 1984 are to:

- Protect public health and safety, safety of property, and U.S. foreign policy and national security interests;
- Ensure compliance with international obligations of the United States; and
- Encourage, promote, and facilitate the U.S. commercial space transportation industry.

*FAA's ultimate customers* are passengers and shippers and the communities they serve. The FAA also views the transportation community as customers and partners. That includes the B-747 mechanic and the helicopter pilot and nurse rushing an injured child to the hospital. Airlines, general aviation and commercial pilots, commercial space launch companies and site licensees, manufacturers, airports, and communities seeking noise relief are customers and partners. So are surface transportation modes that link airports to communities. FAA employees are key partners. Each customer and partner has different needs and speaks with a different voice. FAA must listen, balance those needs, and act.

*The future global aerospace environment* is presented in the Strategic Plan as a set of 4 possible future scenarios (Appendix A). Each reflects different driving forces, opportunities for change, and restraints. The Department of Transportation (DOT) and FAA, working with leaders of the transportation community, identified some 250 drivers of change, arranged them on 4 dimensions, then combined them to describe 4 scenarios representing the broad range of possible futures. Potential goals and strategies were identified to address each world's needs. The strategies from each world were compared to identify the robust strategies that work well in multiple futures. The current FAA goals and strategies were also evaluated and found generally robust.

This strategic plan, then, provides the *long-term framework* to match resources with initiatives for long-term change. It supports the Department of Transportation's (DOT) Strategic Plan (see appendix B) and responds to numerous evaluations (see appendix C). It is a basis of FAA resource requests and provides long-term measures



## FAA Strategic Plan



of success. Finally, it supports both FAA and DOT efforts under the Government Performance and Results Act (GPRA). (see appendix D.)

*This is not, however, the only aerospace plan.* The National Aeronautics and Space Administration (NASA) Strategic Plan has a strong aviation component and adopts the same safety goal as this plan. The Department of Defense (DoD) performs air traffic control and coordinates its system and equips its aircraft to operate in the civilian National Airspace System (NAS). DoD includes the U.S. Space Command, with its own long-range plan. Private aerospace companies have plans as well. FAA itself has numerous special focus plans, including the Capital Investment Plan (CIP) and the National Aviation Research Plan, that are aligned with and support this Strategic Plan.

*Nor is this the only transportation plan.* Just as aviation and commercial space are parts of the transportation system, so is the FAA a part of DOT. Safety, security, and system efficiency goals presented here directly support the DOT Strategic Plan goals of safety, national security, mobility, economic growth, and human and natural environment. The DOT plan is a basis for FAA participation with other modes of transportation as well--sharing research in such areas as flammability, toxicity, and cabin integrity; sharing and co-developing systems such as the Global Positioning System (GPS) of satellites; and linking airports to metropolitan transportation. The key is to ensure that all these plans and programs coordinate with each other and with the overarching direction contained in the DOT Strategic Plan.

*The Strategic Plan established in 1998 remains unchanged,* with the same mission, goals, and strategies. Even in light of the September 11 attack and legislation transferring FAA's security functions to a new Transportation Security Administration, Security remains a key FAA goal. It will remain so at least until the transfer is complete.

*This annual update* takes advantage of 4 years of evolution in how FAA measures success to describe better outcome performance goals. This year, it also responds to three key changes in the aerospace environment:

1. The September 11, 2001 attack on America and the subsequent legislation transferring FAA security functions to a new Transportation Security Administration. Security remains a key FAA goal as FAA makes a smooth transfer.
2. The Air Traffic Organization (ATO), a new Performance-Based Organization (PBO) created within FAA. ATO has primary responsibility for achieving FAA's System Efficiency goal. This Strategic Plan sets broad direction for ATO, and ATO's planning must be closely linked to FAA's overall plans.
3. The General Accounting Office (GAO) May 2001 report, Managing for Results: Federal Managers' Views on Key Management Issues Vary Widely Across Agencies. That report, which surveyed some 100 FAA managers and supervisors, rated FAA very low on top leadership commitment to achieving results and employees receiving positive recognition for helping the agency accomplish its strategic goals. In response, this plan places more emphasis on recognizing how ongoing FAA programs and activities contribute to achieving FAA's strategic goals.

Implementation details are given in the companion ***FAA Strategic Plan Supplement***. That document describes annual Performance Goals, Corporate Projects, and proposed annual accomplishments FAA will achieve to meet its strategic goals, objectives, and strategies. The 2 plans set the course for FAA strategic management and support the DOT Strategic and Performance Plans.



## FAA Mission, Vision, and Values

FAA helps shape the future of aerospace based on a mission as defined by legislative mandate (especially Title 49, United States Code). FAA's mission also responds to direction established by the Administration, Congress, and the Department of Transportation, the expectations of its customers and partners, and the vision and values of its people. The following are statements of the mission, vision, and values FAA will apply in shaping the future of aerospace.

### FAA MISSION

FAA provides a safe, secure, and efficient global aerospace system that contributes to national security and the promotion of U.S. aerospace safety.

As the leading authority in the international aerospace community, FAA is responsive to the dynamic nature of customer needs, economic conditions, and environmental concerns.

### FAA VISION

To provide the safest, most efficient and responsive aerospace system in the world and to be the best Federal employer, continuously improving service to customers and employees.

### FAA VALUES

**We Believe In** Trust, Integrity, Honesty, Involvement, Teamwork, Diversity, and Respect.

**We Are Committed To** Responsiveness, Quality, Timeliness, Fiscal Responsibility, Accountability, and Communication.

#### **We Will Achieve These Values By:**

- ? Giving people what they need, then letting them do their jobs.
- ? Making timely decisions at the lowest level and respecting them.
- ? Committing our best to our customers.
- ? Valuing our people.
- ? Being open to new ideas.
- ? Speaking out for what we believe, even when it is unpopular.
- ? Recognizing each person's contributions and realizing each person's full potential.
- ? Collaborating across organizations.
- ? Taking pride in what we do.



## Mission Goal: **SAFETY**

**By 2007, reduce U.S. aviation fatal accident rates by 80 percent from 1996 levels.**

**Supports DOT Strategic Goal: SAFETY.**

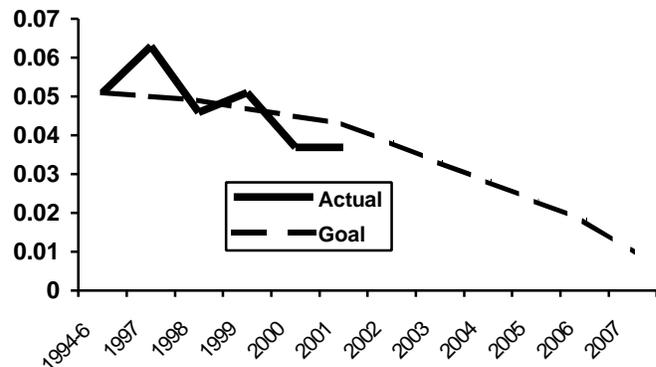
**Long Term Objectives:** FAA has set ambitious targets for safety improvements by specified dates. It will take the entire aerospace community working together to meet the 4 objectives described here.

### **Fatal Air Carrier Accident Rate**

*By FY 2007, reduce the U.S. commercial air carrier fatal accident rate per 100,000 departures by 80 percent of the 3-year average from FY 1994 to 1996.*

This objective was taken directly from the chief safety recommendation of the 1997 White House Commission on Aviation Safety and Security, and is applied to commercial aviation. The graph presented here shows FAA making progress toward meeting this primary performance goal. The line represents a three-year moving average.

**Fatal Air Carrier Accident Rate: 3-Yr Moving Avg.**



**Fatal Accidents per 100,000 Departures**

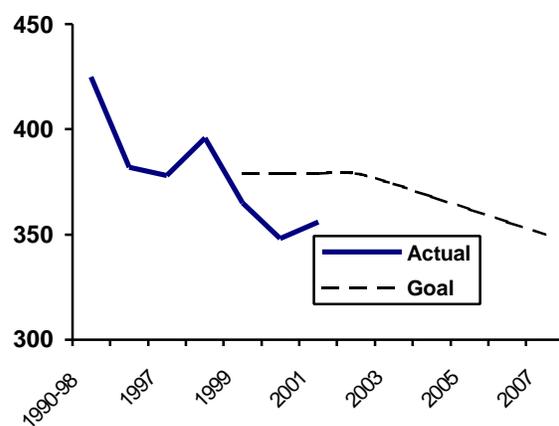
### **General Aviation Fatal Accidents:**

*Reduce general aviation fatal accidents by an amount that will result in a 20 percent improvement of the projected 2007 estimate of 437 (or no more than 350 a year). The 2002 target is no more than 379 fatal accidents, with the reduction to be achieved in key areas outlined in the Safer Skies agenda.*

This objective was agreed upon by a coalition representing the general aviation community and the FAA.

It represents fulfillment of a pledge made in the 1998 Strategic Plan to move beyond objectives for commercial aviation alone. The adjacent graph shows the recent trend in number of general aviation fatal accidents.

**Number of Fatal General Aviation Accidents**

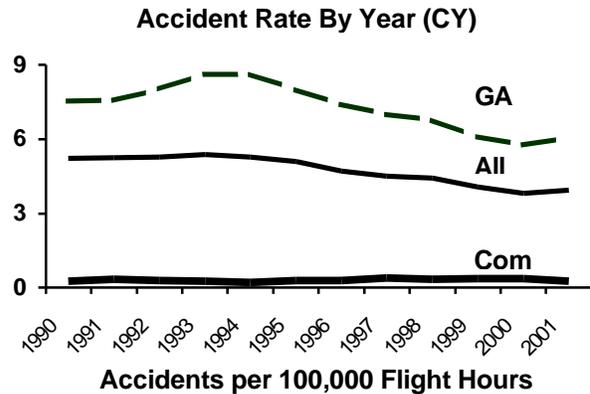


**Per Year**



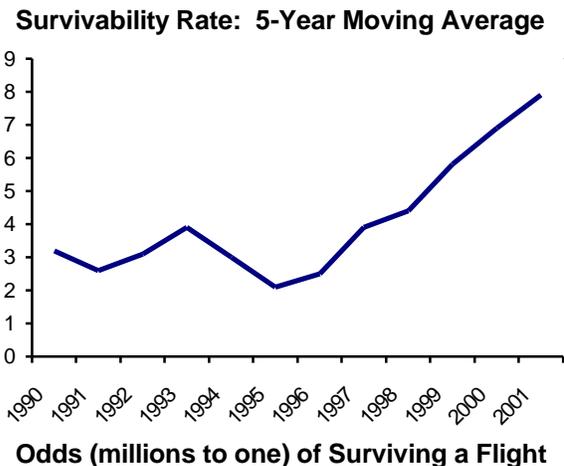
## Overall Aircraft Accident Rate:

Reduce the rate per 100,000 flight hours. Aviation safety means reducing all accidents, not just fatal accidents. This graph shows the trend in the overall accident rate. Commercial aviation (Com) includes Part 121 and Scheduled Part 135 aircraft and is very low relative to general aviation. General Aviation (GA) also includes unscheduled Part 135 carriers. The overall rate (All), then, is the weighted average of the two.



**Increase Survivability:** Increase the probability that passengers and crew will survive an air carrier flight.

This measure is literally a passenger's odds of surviving the next flight. It relates the probability of NOT being in a fatal air carrier accident (NF) and the probability of not surviving if a fatal accident occurred (NS). The exact formula is  $NF/NS$ . This is the ultimate aviation safety measure for airline passengers and crew. The graph shows the recent, improving trend in passenger odds. In 2001 (1997-2001), the odds were 7.9 million to 1. Dr. Arnold Barnett of MIT, who developed the measure, has estimated that you could fly once a day



for 22,000 YEARS and not lose your life in a commercial aviation accident.

**Some Context:** These 4 objectives are the top level of a set of measures that assesses FAA achievement of outcomes, provision of products and services (outputs), completion of actions and milestones (activities), and use of resources (inputs) that serve FAA customers and stakeholders. They are linked to outcome performance goals such as runway incursions and operational errors in DOT and FAA annual Performance Plans. They are linked to projects, accomplishments, and milestones in the FAA Strategic Plan Supplement and the Administrator's annual Performance Agreement with the Secretary, budget requests for resources to meet FAA commitments to these safety goals, and senior manager performance standards.

## Near Term Goals, Strategies For Change and Corporate Projects:

### GPR Performance Goals:

- **Commercial Fatal Accident Rate.** Reduce commercial fatal aviation accidents per 100,000 departures. FY 2002 goal is no more than .038.
- **General Aviation Fatal Accidents.** Reduce the number to no more than 379 in FY 2002.

**Strategies: Accident Prevention.** Based on detailed analysis of recurrent accident causes, FAA works with the aviation community to prevent accidents through targeted, systematic interventions. **“Safer Skies”** covers three areas. Runway Safety addresses runway incursions and programs such as the Airport Movement Area Safety System (AMASS). Commercial Aviation Safety addresses causes such as controlled flight into terrain (CFIT), uncontained engine failures, approach and landing, and loss of control.



General Aviation Safety addresses causes such as CFIT, weather, loss of control, survivability, and aeronautical decisionmaking. Corporate Projects include:

- Safer Skies – Runway Safety
- Safer Skies – Commercial Aviation
- Safer Skies – General Aviation
- GPS Implementation: Expand GPS Use

**Safety Information Sharing and Analysis.** To cut fatal accidents 80 percent, FAA must do more than regulate and enforce. FAA must partner with aviation to address potential causes of accidents. Voluntarily sharing safety information through the National Aviation Safety Data Analysis Center (NASDAC) and the Global Aviation Information network (GAIN) is fundamental. Protecting information and sources through the Flight Operations Quality Assurance (FOQA) program is needed to gain voluntary disclosure. So FAA must balance enforcement with the need to share information to garner the maximum improvement in safety. Data available from flight recorders, maintenance reports, and other sources can be used to analyze operations, find potential problems, and develop procedures, regulations, and technologies to prevent accidents before they occur. Corporate Projects include:

- Aviation Safety Action Program (ASAP)

**Certification and Surveillance.** While partnership, information sharing, and addressing human factors will improve safety, FAA must also get the most benefit possible from certification and surveillance. This means working with others and targeting FAA resources where they will do the most good. FAA is building on several recent initiatives in which feedback is a unifying element, including the Air Transportation Oversight System (ATOS). FAA is addressing key certification and inspection issues, such as shipment of dangerous goods. Other initiatives ensure that safety concerns are considered systematically in FAA decisions. For commercial space transportation, FAA is developing rulemaking standards for all space launches from, and landing at, every U.S. site, Federal or non-Federal. FAA Corporate Projects include:

- Air Transportation Oversight System (ATOS)
- Space Transportation Safety

### **Ongoing FAA Actions That Support Safety**

All FAA employees contribute to achieving FAA's mission goals -- **Safety, Security, and System Efficiency**. Many employees are "on the line" controlling aircraft safely and efficiently, maintaining facilities and equipment, inspecting aircraft, and certifying pilots. Others oversee the hiring, training, and support of line employees, giving them what they need to improve safety, security, and system efficiency. They help achieve 4 organizational excellence goals: **People, Reform, Environmental Responsibility, and Global Leadership**. It takes all FAA's people to achieve these goals.

FAA has two safety organizations, the Office of Regulation and Certification (AVR), and the Office of System Safety (ASY). AVR leads Safer Skies in identifying and addressing recurrent causes of accidents. AVR works with the aerospace community to develop and enforce the regulations that keep people safe when they fly. AVR's Flight Standards Service certifies the aircraft and rockets, airports and spaceports, maintenance and operating procedures, and parts and equipment that make up the aerospace system. The Office of Aerospace Medicine certifies pilots, flight attendants, and mechanics. AVR inspects manufacturers/aircraft, airlines, airports, and repair facilities, and designates people to inspect them. When necessary, AVR enforces, but if AVR and the aerospace community do their jobs, aerospace is far safer than rules alone could ever make it.

ASY leads in sharing, analyzing, and using information to stop accidents before they occur. The National Aviation Safety Data Analysis Center (NASDAC) and the Global



Aviation Information Network (GAIN) work with the aerospace community to share information. FAA's Safety Hotline and the Aviation Safety Reporting System (ASRS) share more information. The ASY Safety Risk Management program identifies and addresses safety risks in FAA's modernization programs.

Other FAA organizations help assure safety. Commercial Space Transportation (AST) oversees the safety of commercial space flight. The Air Traffic Organization (ATO) and its components, Air Traffic Services (ATS) and Research and Acquisitions (ARA), will safely modernize, operate, and maintain the Air Traffic Control (ATC) System. The Office of Region/Center Operations (ARC) helps coordinate field, regional, and headquarters safety programs. Airports (ARP) has an Office of Airport Safety and Standards and provides grants that improve airport safety. Even organizations such as the Office of Environment and Energy (AEE) pursue their goals in ways that enhance safety.

Finally, FAA's staff organizations hire, train, and provide a supportive work environment for safety inspectors and others (AHR and ACR). They fund safety programs (ABA), tell FAA's safety story (APA and AGI), and provide information technology (AIO). They ensure that safety regulations meet legal requirements (AGC) and weigh benefits against costs (APO). In short, virtually all FAA employees contribute to aerospace safety.

### **Transportation Community Involvement:**

The transportation community is the front line for safety. Airlines, manufacturers, pilots, airports, commercial space launch operators and site owners, and aerospace groups representing general aviation and all other parts of the aerospace community implement FAA regulations. They generally exceed regulations to create the safe aerospace system that everyone desires. Other Federal agencies have strong safety roles. Safety is a critical DOT Strategic Plan goal. FAA supports DOT and works with other modal administrations to share research in areas such as flammability, toxicity, and cabin integrity; co-develop new systems such as GPS; and ensure that the safety of ground and air transportation is designed into airports and their surface connections. The National Transportation Safety Board investigates accidents and makes recommendations to FAA and the aerospace community. NASA has accepted the aviation safety goal presented here and set an additional goal of reducing the aviation fatal accident rate by a factor of 10 in 20 years. NASA's key contribution is a major investment in aviation safety research. The Department of Defense (DoD) operates its own air traffic control system in coordination with the civil system. DoD must also equip its aircraft to operate in the civil system. A key issue for DoD is safe operation in air and space traffic control systems around the world, often in systems not as safe as the United States. DoD supports FAA and the International Civil Aviation Organization (ICAO) in addressing safety issues in these systems.

Partnership is key to achieving safety. FAA, NASA, and DoD are developing and implementing interagency safety research plans based on NASA's "Toward a Safer 21st Century -- Aviation Safety Research Baseline and Future Challenges." Human factors is guided by the jointly developed National Plan for Aviation Human Factors. The joint FAA/industry Aviation Rulemaking Advisory Committee (ARAC), likewise, involves the aerospace community with FAA on an ongoing basis to develop better safety regulations. FAA partnership with the aviation community has led to many successes, including safety schools that have trained over 5,000 people and the Advanced Qualification Program that has produced more qualified flight crews and safer aviation. The commercial space transportation industry is in its infancy, and is working in close cooperation with FAA, NASA, DoD, and others to continue its fine safety record.



## Mission Goal: **SECURITY**

**Prevent security incidents<sup>1</sup> in the aviation system.**

**Supports DOT Strategic Goal: NATIONAL SECURITY.**

**The September 11th Attack on America** exposed gaps in national security, and an aviation system not designed to meet that unprecedented threat. FAA employees performed admirably in response to it. When the Secretary ordered the system closed down, FAA controllers landed 2,800 aircraft safely within 54 minutes. FAA employees rapidly implemented new security requirements and helped bring aircraft and airports back on line quickly and efficiently. FAA employees served on 2 secretarial Rapid Response Teams, where key aviation and FAA executives made recommendations on October 1 on aircraft and airport security. Once airplanes began flying again, when private war risk insurance was canceled on 7 day's notice, FAA employees basically re-insured the airline industry over a weekend and kept the airplanes flying.

September 11 changed forever the way security will be provided for people who fly or ship. The key change for this plan is that Congress transferred FAA's security function to a new Transportation Security Administration (TSA) within DOT. TSA, in turn, will be a part of the new Department of Homeland Security once Congress approves.

**Security remains a critical FAA strategic goal.** As the security function has been transferred to TSA, FAA has remained a guardian of aerospace security. Some security requirements, particularly for information security and for the security of its own facilities, will remain with FAA. FAA is currently assisting TSA in hiring and training air marshals and screening personnel. FAA may well continue to conduct or assist with security-related hiring, training, and research. FAA will need to integrate security concerns into its efforts to improve the safety and efficiency of the aerospace system.

**New objectives and strategies are being set by the Transportation Security Administration (TSA).** Meantime, FAA is concentrating on achieving the following.

**1. Transition of Security Functions to TSA.** In light of Congress' decision and the need to strengthen security throughout the transportation system, FAA is providing a smooth transition of FAA civil aviation security functions to the Transportation Security Administration (TSA). FAA will also establish a strong linkage with TSA on aviation security matters.

**2. FAA Information Systems Security Program.** FAA Order 1370.82, Information Systems Security Program describes the overall approach for securing the FAA's information technology infrastructure. Due to events of September 11, the FAA has accelerated the Program in three areas, 1) Hardening of Internet Access Points, 2) Enhancement of the capabilities of the Computer Security Incident Response Center (CSIRC), and 3) Electronic Boundary Protection of mission critical facilities. The four accomplishments below are directly tied to the accelerated program activities.

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<sup>1</sup> "Security incidents" means criminal or terrorist acts against commercial passenger air transportation that is subject to security regulation during which weapons, firearms, incendiary or explosive devices are used. These acts must result in hijackings, sabotage, bombings, aircraft piracy, or attacks within the secured areas of airports that could cause fatalities or serious injuries. This definition excludes: Hoax hijackings or bomb threats; unruly passengers; and, international disruptions in air traffic service.



## **Ongoing FAA Actions that Support Security:**

While FAA's Office of Civil Aviation Security (ACS) was transferred to TSA, other FAA line organizations help develop security regulations (AVR), work with airports on security (ARP), and research and develop new security technologies (ARA). ARA also leads on the safety of FAA facilities. Everybody in FAA helps protect the security of information, with FAA's Chief Information Officer (CIO) leading the effort. Other staff organizations support security the same way they support safety -- by providing human and financial resources, information, legal and other advice, policy, and analysis.

In the aftermath of the "911" attack, all FAA employees see more clearly how they fit into FAA's security efforts. Air traffic controllers were the first to see that aircraft were hijacked, taken off course, and their transponders shut down. Controllers communicated these facts using the system FAA developed, but things happened too fast and unpredictably to prevent the World Trade Center and Pentagon attacks. After the attacks, air traffic controllers landed everything in the air safely and quickly and employees from all parts of FAA, even when off duty, communicated with the public. In the immediate aftermath, FAA employees developed and implemented new security procedures and oversaw the reopening of the nation's airports. Employees from all over FAA made suggestions, prepared information, responded to the public, and worked on task forces addressing different aspects of security. FAA employees are at the forefront making or overseeing changes to the air traffic control system, aircraft, airports, and throughout the aviation system. Finally, even employees just doing their regular jobs and perhaps a little extra have supported those addressing security questions. We are all part of aviation security.

## **Transportation Community Involvement**

Transportation community involvement in security will be increasingly important when TSA becomes part of the new Department of Homeland Security. Airports, airlines, and a host of Federal, state, local, and even international agencies and organizations that provide intelligence and enforcement are all security partners. They, along with FAA, will be partners of the new TSA. The proper focus of security is on incidents against the United States as a Nation, not just against airports, airlines, and launch sites. That is the basis for establishment of a Department of Homeland Security. Even before September 11, FAA and the airlines had implemented Computer-Assisted Passenger Pre-Screening (CAPPS) voluntarily in advance of a regulation by FAA. FAA established voluntary consortia at over 130 airports nationwide.

Other Federal agencies, both in and out of the Department of Homeland Security, are security partners. The White House Commission on Aviation Safety and Security made 57 recommendations, 31 on aviation security. In response a host of agencies, including NTSB, the FBI, the Bureau of Alcohol, Tobacco, and Firearms (ATF), and the Customs and Postal Services came together with DOT/FAA to achieve the recommendations.

Aerospace and transportation security, in turn, are part of national security. A key FAA/aerospace contribution to national security is the Civil Reserve Air Fleet. In times of crisis such as the Gulf War, U.S. airlines provide civilian aircraft to fly troops and equipment to key locations throughout the world. FAA guarantees insurance for those aircraft. In time of war, the President can even transfer to the Secretary of Defense a duty, power, activity, or facility of the Federal Aviation Administrator.



## Mission Goal: SYSTEM EFFICIENCY

**Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.**

**Supports DOT Strategic Goals: MOBILITY; ECONOMIC GROWTH; HUMAN AND NATURAL ENVIRONMENT**

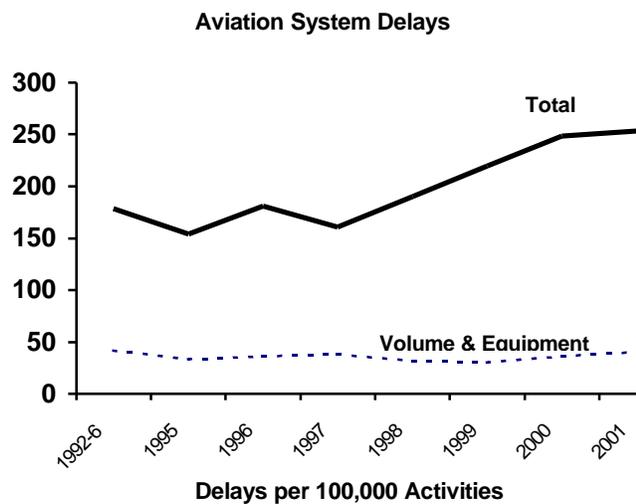
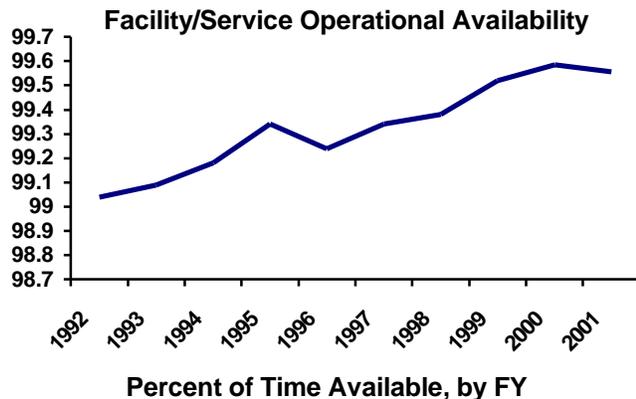
### Long Term Objectives:

**System Availability:** Increase the percentage of time a typical major facility or service is available to users of the National Airspace System.

The National Airspace Performance Reporting System (NAPRS) sets forth requirements and procedures for reporting interruptions to facilities and services in the NAS. There are currently some 130 major facility or service types for interruption reporting.

**System Delays:** Reduce the rate of aviation system delays, and especially the volume and equipment delays over which FAA has more direct control, from a FY1992-1996 baseline.

“Delays” are delays of over 15 minutes, and the rate is per 100,000 activities. Activities include instrument and non-instrument operations at FAA and contract airports and aircraft handled at enroute Air Route Traffic Control Centers (ARTCC). While volume and equipment delays are steady, total delays have increased.



### Near Term Goals, Strategies for Change and Corporate Projects:

#### GPRA Performance Goals:

- **On Time Arrival.** Increase the percentage of flights that arrive no later than 15 minutes after the scheduled arrival time at 32 designated airports to 77.2 percent.
- **Aviation Noise.** Limit the number of people in the U.S. who are exposed to significant aircraft noise levels to 440,000.



## Strategies and Projects:

**Free Flight and Operational Evolution.** Free flight is the opportunity to fly anywhere, anytime by the best route as judged by the user, subject only to the safety restriction that one aircraft not fly too close to another. A truly efficient aerospace system allows aircraft to fly in ways that give users the most benefit as they define it. Operational evolution means continuously evolving the National Airspace System in the near term to implement Free Flight capabilities, eliminate choke points, and generally improve airport and airspace capacity. Corporate Projects include:

- *Operational Evolution Plan (OEP).* The OEP includes Free Flight, National Airspace Redesign, and Improve Weather Information for the National Airspace System.

**NAS Modernization.** Upgrading the NAS is a long-term process. FAA must address congestion and delays and realize opportunities in areas such as information technology. Before developing an efficient aerospace system, FAA must describe the system to be built and how it meets aerospace needs. In the National Airspace System (NAS) Architecture, FAA provides the evolving framework for modernizing the National Airspace System over the next 15 years. Corporate Projects include:

- *Standard Terminal Automation Replacement System (STARS)*
- *Revitalize Existing Structures, Technology, and Operational Resources (RESTORE)*
- *En Route Automation Modernization (ERAM)*

**Systems Integration.** Only close communication and integration of efforts among all DOT modes, Federal, state, local, and private entities will give efficient transportation. When Research and Acquisition (ARA) develops a new technology, Air Traffic Services (ATS) must prepare its people to use it. When a new runway is built, FAA must provide lighting, approaches, and radar coverage. Airports must be part of local transportation planning. Information technology architectures, including telecommunications and security, must be integrated into the NAS Architecture. FAA's ARA, ATS, and Commercial Space Transportation (AST) offices must coordinate on an integrated space and air traffic management system. FAA's Systems Integration Corporate Project is:

- *Develop the Air Traffic Organization (ATO)*

## Ongoing FAA Actions that Support System Efficiency:

A new Air Traffic Organization (ATO) is combining Air Traffic Services (ATS) and Research and Acquisitions (ARA) to modernize, operate, and maintain a safe, efficient air traffic management (ATM) system. Some 20,000 air traffic controllers and flight service station operators and 8,000 maintenance technicians make ATM efficient. FAA's Airports (ARP) and Commercial Space Transportation (AST) offices integrate airports and commercial space launches with the ATM system for efficient aerospace transportation. The Office of Region/Center Operations (ARC) helps integrate the system nationwide, as do Regions and Centers, individual towers, Air Route Traffic Control Centers, Flight Service Stations, and maintenance facilities across the Nation.

Once again, FAA's staff offices provide the motivated, well trained, diverse work force, financial and information resources, legal and policy advice and analysis, work space, equipment, and communications with FAA stakeholders that allow FAA to provide a safe, efficient air and space transportation system.

## Transportation Community Involvement

People and goods must be moved to and from airports as well as in the air. The aerospace community flies airplanes and space vehicles. FAA and airport/spaceport owners provide infrastructure linked to surface transportation. Roads and rail link to



## FAA Strategic Plan



nearby metropolitan and rural areas. DOT and the modal administrations including FAA, support the transportation system and link its parts into an efficient whole.

Examples abound. In the Federal Radionavigation Plan, the DOT's Volpe Center, the Coast Guard, FAA, and others coordinate policy and programs for navigation systems such as GPS and LORAN, used by many transportation modes. FAA and the Federal Highway Administration (FHWA) developed joint guidelines for design and construction of surface transportation facilities at airports. FAA, FHWA, the Federal Transit Administration (FTA), and the Port Authority are building a light rail line to JFK Airport.

Free Flight is another example of partnership. Free Flight holds that an efficient aerospace system is one that gives users freedom to gain maximum benefit. So the aerospace community helps test new Free Flight systems in a realistic environment. FAA, the airlines, and others have together identified the capabilities needed for Free Flight and are incorporate them into the evolving NAS Architecture.

Partnership among Federal agencies is crucial to achieving an efficient system. NASA contributes research on safety and technologies ranging from reliable, low-cost general aviation avionics to hypersonic transport and quieter, cleaner aircraft engines. NASA and FAA have signed a formal memorandum of understanding on air traffic system research, and an Interagency Integrated Product Team formulates that research agenda in a yearly national plan. DoD, another crucial partner, operates an ATC system that meshes with FAA's to serve civil and military uses. Restrictions/Special Use Airspace are FAA concerns, and DoD is concerned about NAS equipment on military aircraft.

Finally, as commercial space transportation grows, it will link more closely to aviation. Commercial space launches go through U.S. commercial airspace now, so airspace over launch sites is closed off during launches. In the future, aircraft may use spaceports, and spacecraft may use major airports. The two will increasingly share navigation and surveillance systems, and will need to operate together without restricting each other. Space and Air Traffic Management System (SATMS) is key to achieving that result.



## Making it Happen: Organizational Excellence Goals

### People: The Foundation of Accomplishment The Model Work Environment at FAA

**Create and maintain a hospitable work environment that supports a productive and skilled work force reflective of the Nation's diversity to accomplish the mission and better serve our customers now and into the 21st century.**

#### Some Indicators of Success:

- Increased positive employee perceptions of the FAA work environment as measured by work force surveys. A new OPM Human Capital Survey will be helpful.
- Reduced under-representation in the FAA work force.
- Reduced incidents of harassment and resolve complaints of harassment.
- Training is assessed by success at achieving the mission goals and sustaining the Model Work Environment (MWE).

#### Strategies For Change and Near-Term Corporate Projects:

**Intellectual Capital.** People are the most valuable FAA resource. Just as physical assets require investment in maintenance and modernization to be fully productive, so FAA invests in education and training for its employees. This creates a continuous learning environment that develops and maintains the intellectual capital that not only gets today's mission done, but positions the agency to achieve present and future mission-based and organizational excellence goals, including MWE.

**Managing the Diverse Work Force.** FAA will reflect the Nation's diversity and eliminate artificial barriers to the advancement and full contribution of all employees. FAA will reach out to widen the pool of qualified applicants for agency vacancies. FAA will continue to develop its existing employees at all levels to widen opportunities for advancement. FAA will eliminate all forms of unlawful discrimination and harassment through a multi-faceted approach emphasizing guidance, training, information on what constitutes unlawful discrimination and harassment, and accountability.

**Quality of Work Life.** FAA is committed to provide a model work environment that enables employees to perform at their highest potential and contribute to the organization. Instrumental in achieving this is measuring employee satisfaction across several dimensions and using this information and other employee feedback as inputs to action plans for improving the quality of work life.

FAA Corporate Projects that support these strategies include:

- Labor-Management Cooperation
- Workforce Planning

#### Ongoing FAA Actions that Support FAA's People Goal:

FAA's Office of Human Resource Management (AHR) hires and trains FAA employees, works with FAA unions and employee organizations, supports employees and managers, and provides Organization Development. FAA's Center for Management Development (CMD) and the FAA Academy provide training. FAA's Office of Civil Rights (ACR), with AHR and the FAA Accountability Board, assure a hospitable work environment that supports diversity and performance. These offices and FAA's unions



protect the rights of FAA employees to fairness and freedom from workplace discrimination.

The bottom line, however, is that all FAA managers, in all FAA organizations, and working with all FAA employees, are responsible for hiring, training, managing, and motivating the work force that provides a safe, secure, efficient global aerospace system.

## **Reform: The Framework For Accomplishment**

FAA is reforming how it does business. The ATO is FAA's major structural reform to integrate modernization, operation, and maintenance of air traffic management. It focuses responsibility on a Chief Operating Officer and bases accountability on results.

### **Strategies For Change and Near-Term Corporate Projects:**

**Acquisition Reform.** FAA is making acquisition faster, simpler, and mission based. FAA's reformed Acquisition Management System (AMS) seeks to cut acquisition time 50 percent and acquisition costs 20 percent. There are four elements. **Financial Management Reform** emphasizes life-cycle costs, analysis, and accountability.

**Cultural Change** emphasizes work force competency, understanding AMS, cross-organizational cooperation, and improving individual and organizational effectiveness through FAA culture change driven by internal and external studies. **Acquisition and Procurement Process Improvements** (i.e., using an Integrated Capability Maturity Model (FAA-iCMM) to improve the way FAA manages, engineers, and acquires software-intensive systems across all phases of the FAA acquisition life cycle) seek to improve management, mission analysis, dispute resolution, and planning linkage.

**Measure Implementation** uses measures for time, cost, quality, and performance to compare new program results with baselines that describe good performance. This allows FAA to assess its success in managing information technology and other investments.

**Personnel Reform.** The 1996 DOT Appropriations Act authorized a new personnel system for FAA, largely unconstrained by civil service law and regulations. The goal was to replace the labyrinth of existing regulations and procedures with simpler, flexible principles and systems. Drawing on common-sense government and best industry practice, the new system is designed to increase flexibility in hiring, pay, and placement; protect employee rights; increase productivity; promote accountability; enhance the agency's intellectual capital; and create incentives for change.

**Financial Reform.** The National Civil Aviation Review Commission (NCARC) recommended that revenues from aviation users and spending on aviation services be directly linked; that FAA management become performance based; that FAA's revenue stream become more cost based; that FAA control its operating costs and increase capital investments; and that airport capital needs be met. FAA is implementing new systems based on those recommendations that provide stable, adequate, fair, cost-based funding that allows FAA to meet legitimate aerospace needs.

FAA Corporate Projects supporting these strategies include:

- Clean Audit
- Cost and Performance Management (C/PM)/Cost Accounting System (CAS)
- Compensation Implementation
- Major Procurement Program Goals (MPPG)

### **Ongoing FAA Actions that Support Reform:**

A "Balanced Scorecard" approach suggests that government success comes from achieving the **mission**, meeting **employee** needs to learn and contribute, building excellent **internal organizational processes**, and meeting **customer** needs. FAA **reform** aims to improve FAA's internal processes and meet customer needs. The Office



of Acquisitions (ASU) under the Associate Administrator for Research and Acquisitions (ARA) leads acquisition reform. However, people acquire goods and services all across FAA, so reform requires support from Contracting Officer's Technical Representatives, holders of credit cards, secretaries who book travel or make purchases, and all managers. Personnel reform is led by the Assistant Administrator for Human Resource Management (AHR), but involves everyone from the Administrator to the cleanup crew. The Chief Financial Officer (ABA) leads financial reform through Cost and Performance Management, a new Cost Accounting System, and Labor Distribution Reporting. Good performance management, however, requires contributions from everyone.

## **The Environment: Our Responsibility**

Environmental issues, especially aviation noise, are a key challenge to growth and prosperity of civil aerospace in the 21st century. Aerospace environmental impact must be reduced while not constraining aviation and commercial space transportation.

### **Strategies For Change and Near-Term Corporate Projects:**

***Understanding Aerospace Environmental Impacts.*** FAA will participate with NASA and the aerospace community in research to understand more fully the effect of aerospace on the atmosphere and ways to minimize the impacts.

***Reducing Aerospace Environmental Impacts.*** FAA will combine regulation, research, technology, and procedures to help aerospace reduce and mitigate adverse environmental impacts, especially of aviation noise.

### ***Quantify and Mitigate Environmental Impacts of FAA Activities***

The FAA Corporate Project that supports these strategies is:

- Airplane Noise

### **Ongoing Activities that Support the FAA Environment Goal:**

FAA's Office of Environment and Energy (AEE) leads FAA environmental efforts, which include the occupational safety and health of FAA employees. AEE works with agencies such as the Environmental Protection Agency and the National Parks Service, and with the International Civil Aviation Organization (ICAO). Aviation noise is a key issue, so FAA's Airports organization (ARP) works with airports and communities on noise issues such as compatible land use around airports. FAA's Air Traffic Services (ATS) organization brings environmental considerations in as it develops takeoff and landing procedures for airports. The Assistant Administrator for Region/Center Operations (ARC) and FAA's Regions and Centers themselves are major conduits for addressing local issues close to home and bringing local environmental concerns into national discussions. Finally, the Office of Research and Acquisitions (ARA), together with NASA and others, conducts research on areas such as quieter, less polluting aircraft engines.

## **Global Leadership: Commitment to Worldwide Improvements**

FAA is committed to working for worldwide improvements in safety, security, and system efficiency. The United States has the largest civil aviation infrastructure and the most civil aviation activities of any country. U.S. airlines and DoD operate worldwide. U.S. citizens travel abroad widely in areas where FAA has no direct regulatory authority. U.S.-manufactured aircraft and technologies are used in every country of the world. U.S. aerospace is truly global. In this environment, FAA's interests must also be global.

FAA is the world's leading aviation authority and U.S. aerospace leads the world. They lead through safety, security, technological initiatives, and cooperative actions. FAA's influence at the International Civil Aviation Organization (ICAO) has strengthened



ICAO's safety and security programs. U.S. support of new technologies is creating a safer, more efficient global airspace system. FAA and U.S. aerospace also work with international civil aviation partners--regional organizations, individual states, and industry associations--to increase the capability of other national authorities to regulate and operate safe civil aviation systems. International harmonization and development of civil aviation infrastructure help bring about global improvements.

## **Strategies for Change:**

***International Safety Oversight.*** FAA developed the U.S. International Aviation Safety Assessment (IASA) program to assess compliance of civil aviation authorities (CAA) with international safety standards and the ability of CAA's to provide safety oversight of their national air carriers operating in the United States. ICAO has implemented its own assessment program. FAA's goal is for ICAO to provide information useful in determining the ability of individual States to oversee their regulatory programs in compliance with ICAO Standards. FAA seeks support and consensus among ICAO members for acceptance of a credible and effective ICAO Safety Oversight program. Ultimately, information provided by the ICAO safety oversight program might permit FAA to augment its own IASA program with information provided by ICAO assessments. For example, in some cases FAA might forego an onsite CAA inspection where adequate information was obtained from an ICAO assessment.

## ***Global Development and Implementation of Aerospace Traffic***

***Management.*** ICAO's acceptance of a satellite-based Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) system with more user flexibility is part of a global transition to space-based air traffic systems. To maximize safety and efficiency, the new system must be worldwide. International standards must be adopted through collaboration with ICAO and FAA's international partners. Air traffic service providers and aircraft operators must synchronize implementation worldwide. FAA is synchronizing the NAS Architecture with ICAO's Global Plan for CNS/ATM Implementation to ensure interoperability and global integration.

***International Regulatory Harmonization.*** FAA works with regulatory authorities around the world to gain regulations that are compatible with those of the United States. Not only is this a platform to press for stronger regulations. It also minimizes unnecessary burdens on aerospace when the same or compatible regulatory requirements and procedures can serve multiple countries.

## **Ongoing Activities that Support FAA Global Leadership:**

FAA's Office of International Aviation (AIA) coordinates with international aviation organizations and nations and fields FAA International Representatives around the world. All FAA line organizations address international issues in their areas. AVR conducts International Aviation Safety Assessments (IASA) and negotiates with the Joint Aviation Authorities (JAA) of Europe to harmonize safety regulations. ASY developed a Global Aviation Information Network to improve safety. ATS and ARA develop technology and procedures for satellite-based navigation using the Global Positioning System (GPS), and promote GPS worldwide. Commercial space transportation and AST are global by definition. FAA's technologies, procedures, and regulations set standards for the world, and English is the worldwide language of aviation. FAA provides leadership for the world, and all parts of FAA contribute.



## Cross-cutting Strategies for Continuous Improvement

The following management tools are crucial to mission accomplishment.

- **PARTNERSHIP.** Achieving mission goals requires many kinds of partnership. FAA must share information and leverage resources with the aerospace community. It must jointly plan and research with other Federal agencies (now including TSA and, soon, the Department of Homeland Security), coordinate with state and local governments on oversight, environment, and intermodal transportation connections, and harmonize regulations with national governments and international organizations. FAA and the Department of Transportation, of which FAA is a part, must work closely to achieve overall transportation goals. Community involvement is key to achieving aviation and transportation that best serves all Americans. Partnering with businesses that serve aerospace, including small and disadvantaged businesses, is key to achieving aerospace and national goals.  
  
Finally and most important, FAA must work in close partnership with its employees and their unions by delegating authority, sharing tasks, and empowering the work force. The FAA's National Labor Management Council, which brings together key union officials and senior FAA managers, has made a significant impact on this plan. FAA must also address the interests of non-bargaining unit employees as expressed by the employee associations and elsewhere. Only with employee cooperation can FAA's goals be accomplished.
- **COMMUNICATION.** Communication is vital to understanding needs, coordinating to achieve goals, building public confidence, and gaining full benefits of employee involvement. Communication must be two way--listening and speaking. FAA will foster communication with external customers and partners, employees, and unions. FAA's Challenger Sessions and Advisory Committees bring the aerospace community and senior FAA managers together to talk to one another.
- **RISK MANAGEMENT.** The aerospace community must apply resources where they do the most good. This means risk management--assessment of where the greatest risks lie and what actions provide the most risk reduction. FAA has developed a risk management policy and is developing a number of tools. FAA will continue to develop and apply those tools to target its resources effectively.
- **RESEARCH, ENGINEERING, DEVELOPMENT, AND ACQUISITION.** Research, engineering, and development by FAA, NASA, the aerospace industry, and others are crucial to operating, maintaining, and modernizing the air traffic management system. FAA acquisition both modernizes the system and maintains and replaces the system's parts. Acquisition reform has given FAA the opportunity to speed up acquisition and focus it on customer and mission needs. It has increased FAA freedom to use other tools, such as information technology, to maximum benefit. Taking full advantage of that opportunity is a major FAA management strategy.
- **RAPID DEPLOYMENT OF EXISTING TECHNOLOGY.** FAA must not only research, develop, and acquire new technology, it must move quickly to deploy both technology it has developed and technology from other sources, including commercial-off-the-shelf (COTS) and non-developmental item (NDI) systems. The aerospace community must participate in and support those decisions, then prepare itself to use the new systems.



## Ensuring Success and Accountability

The purpose of this strategic plan is to set long-range direction to implement change. The **FAA Strategic Plan Supplement** documents the implementation of this plan, describing FAA's performance goals and near-term corporate projects under each goal.

In order to ensure strategic management success, two additional elements are needed, accountability and coordination. Internal FAA coordination has been key to developing both this plan and the FAA Strategic Plan Supplement, and it will continue. FAA has identified lead and support organizations for each goal, strategy, and corporate project and they have committed to providing what has been asked. The result is a series of FAA plans with schedules and milestones to implement each project.

The Administrator and the senior management team hold performance review meetings to review the status of each performance goal and project at least quarterly. Each lead and support organization rates each project as Green, Yellow, or Red. The current status of each performance goal and the project ratings are incorporated into a Monthly Performance Report. Each month, FAA senior managers address one or more strategic goal areas, assessing FAA progress against its performance goals and implementation of each project. Where goals or projects are not on track, senior managers discuss issues and determine actions to bring them back on track.

Project accomplishments are also included in the performance standards and Short Term Incentive (STI) packages of FAA senior managers. Core performance goal targets for each strategic mission goal are also incorporated into those incentive packages.

FAA, finally, holds itself accountable to the aerospace community through Challenger Sessions where the Administrator and FAA senior managers sit down for a day with leaders of the aerospace community to discuss FAA plans and accomplishments and aerospace community needs.

The result is that FAA knows how well it is carrying out its near-term projects and whether they result in a safer, more secure, more efficient aviation system that supports the transportation needs of America. That knowledge is supported by evaluations that tell FAA whether it is doing the right things and whether it is doing them well. Based on the evaluations and working with the Department and the transportation community, FAA will constantly recalibrate and revise its course toward success.



APPENDICES:

A. Environmental Scan: Key Factors Affecting FAA and Aerospace

The aerospace environment is influenced by driving forces, opportunities for positive change, and restraints that make change difficult. These elements will shape not only aerospace but the entire world over the next 30 years.

In early 1999, key leaders of the Department of Transportation (DOT) and the transportation community described possible world futures for the year 2028 and developed strategies for each. They started by identifying some 250 "drivers", ranging from the economy and demographics to terrorism, the degree of global orientation, and various aspects of the political and international environment. A core team isolated 4 broad dimensions:

- **The U.S. economy:** whether it was strong or weak.
- **Globalization:** Has it continued or is there a more regional orientation?
- **The role of government:** Is it active or passive?
- **Demand for transportation:** Is it focused or is it vague and unclear?

The core team used the drivers and dimensions to outline 16 future scenarios. A subset of 4 scenarios that covered the broad range of possible futures in the year 2028 were evaluated in further detail.

Transportation goals and strategies were developed for each world. Each strategy was compared to strategies developed for the other scenarios to identify which were "robust" strategies that were beneficial in several possible futures, and which should be kept in reserve in case the future actually began to resemble the scenario to which it applied. The robust strategies were used to develop the DOT Strategic Plan.

FAA has examined aerospace implications of the 4 scenarios. Like DOT, FAA assembled a team of FAA and aerospace leaders. Like the DOT team, the aerospace group evaluated each scenario to project aerospace strategies, roles, and relationships. Finally, like the DOT team, they identified robust goals and strategies from each world and from the current Strategic Plan. The following pages describe how they viewed the various scenarios and major aerospace implications they identified for each of the worlds.

WESTERN HEMISPHERE

<b>Dimensions:</b>
<b>U.S. Economy: Up</b>
<b>Globalization: Down</b>
<b>Role of Government Up</b>
<b>Demand for Change Up In Transportation</b>

In this scenario, the United States has pulled back from the world-at-large and enjoys cultural and economic unity with Canada, the Caribbean, and Latin America. Collaboration, cross-cultural fertilization, and free trade dominate the western hemisphere in 2028. The middle class has grown in all parts of the Americas. Throughout the region, technology has improved medicine, education, and transportation. Businesses have experienced a growth in both consumer and business-to-business markets. Some transportation programs have devolved to States.

But militant localism, the mixed effectiveness of new and old infrastructure and vehicles, and the strong desire of business to compete in global markets outside the bloc foreshadow problems ahead.

Aerospace is both healthy and technologically advanced, though not as much as in the Global Prosperity scenario. There is more international air travel, primarily north-



## FAA Strategic Plan



south, within the Western Hemisphere trading bloc. Improvements to aerospace are also meeting resistance in local communities.

Space travel will be important in 2028 to orbit satellites, for planetary exploration, and for material processing. There should be passenger travel, some transportation of cargo point-to-point, and maybe space tourism. Commercial space transport could be a serious competitor for aviation, and will have to be accommodated in the aerospace system. The line between air and space travel will be blurred as aircraft fly faster and higher, and changed space propulsion systems allow them to use airports.

Despite competition with space travel (or by co-opting it), passenger airlines should be healthy. Videoconferencing may actually expand face-to-face business travel, much like computers and the "paperless" office. Leisure travel, too, will increase, with a similar (60-40) split between business and leisure travel. Increased air travel demand in Latin America means opportunity for U.S. carriers, which become major regional carriers.

Air cargo transport will increase. Just-in-time delivery will vastly expand aviation small package business. In 2028, with more cargo but cargo terrorism, there may be fully automated cargo flights. Security will be an increasing concern. Another change will be more integration of freight transportation networks across air, rail, and truck.

General aviation should do well in this world of 2028, but not without problems. Less expensive, faster, simpler-to-operate general aviation aircraft will help. Many general aviation airports of 30 years ago, however, will be gone. It will be easy to build new general aviation airports, but they will be far away from almost everything. One option may be to move to helicopters and tiltrotors that need less surface space. If so, the airspace system will need to adapt to these new aircraft, especially over cities.

Aircraft manufacturers will build a wide variety of aircraft, from a new generation of general aviation aircraft to new, larger, faster aircraft and possibly suborbital aerospace craft. One major thrust in aircraft manufacture may be to reduce the weight of aircraft. Another will be more electronic capabilities. Pilots in 2028 may well be primarily system monitors, and general aviation pilots may be more like car drivers.

There could be some relocation of aircraft manufacture from North to South America, especially for general aviation. Major airframe manufacturers will tend to build parts in many places and assemble them in one place. The role of existing aircraft will probably drop a notch; 747's will be used for national transportation, 757's for regional travel, and new large aircraft will be the real long distance aircraft.

Airports, by contrast, are likely to grow, with small airports becoming medium and medium becoming large. All the forecasts are for big traffic increases for commercial aviation. A key airport issue is handling new, larger aircraft. The federal role will have decreased; decision-making will be increasingly local, and local communities may resist new infrastructure. There will be new airports, but far from city centers. One possibility to serve the central city is increased reliance on vertical flight, but infrastructure to handle it will cost billions of dollars. Security will also be a concern.

FAA's air traffic control and safety functions could go in several directions. One vision sees more hemispheric, privatized air traffic control (ATC), with safety moving to a hemispheric organization like Eurocontrol. Another vision sees nations wanting significant ATC involvement, leading to every country having its own ATC system it doesn't want to lose. A third vision is that provision of ATC at low levels will be national, but at high altitudes (commercial), regional. Terminal and tower services could be local, subject to minimum national and international standards.

There is a continued need for some government body to provide safety oversight. Whether oversight is done by a regional authority, ICAO, or FAA is open to question. Another Federal role may be basic research. The private sector, in this scenario, will concentrate on investments that pay off quickly and surely.



Finally, environmental concerns may be mainly local, addressed by metropolitan government and business and with less FAA involvement. Different local standards across the Western Hemisphere will be a problem for airlines.

## AGING AMERICA

<b><i>Dimensions:</i></b>	
<b>U.S. Economy:</b>	<b>Down</b>
<b>Globalization:</b>	<b>Up</b>
<b>Role of Government</b>	<b>Up</b>
<b>Demand for Change In Transportation</b>	<b>Up</b>

The key to this scenario is that aging Boomers retain their political power and use it to gain benefits at the expense of the rest of the economy. The United States is no longer a superpower. In 2028, the nation is bogged down in a stagnant economy. The center of economic gravity has shifted, and investment has migrated abroad. The federal budget operates at a deficit make more severe by generous entitlements to the elderly. Working people do whatever they can to maintain their lifestyles. Who would have guessed, in the euphoria of the turn of the century, that we would become a nation divided by age and affluence, never able to agree on anything except that government needs to fix it, whatever it is.

While worldwide, aerospace does fairly well in this scenario, U.S. aviation and commercial space transportation may not. Both face a weak U.S. economy, protectionism, and competitive disadvantage compared to Europe and the rest of the world. Business travel will be down as domestic corporations seek to economize and use e-communications and commerce. Leisure travel by the elderly will be up. Partnerships among airlines may be part of how U.S. air carriers respond and gain access to the world market. The number of U.S. airlines may shrink, with some major U.S. airlines in trouble unless they reduce costs. Non-U.S. carriers, however, may have an advantage due to code sharing arrangements, tariffs, and price structures. Cargo transport by all modes is flat, but air cargo of small packages should increase as people increasingly shop over the Internet. The structure of commercial air cargo transport could emphasize small, local airports that serve local communities. General aviation, especially for leisure or personal reasons, is greatly diminished. Costs have increased and few will be able to afford flying. There will be fewer general aviation pilots. There should also be more charter travel to assist groups of Seniors portal-to-portal from their homes or communities to leisure destinations and back. Overall, there should be a large world market for commercial aircraft. Manufacture will be international. Airbus will be huge. Boeing will no longer be purely U.S., so ironically, in a world of trade barriers, there may be less air manufacture protectionism than today. The major markets for new aircraft may be Europe and China. The airplanes manufactured in 2028 will be a lot like today's. Cockpits will be similar. There will still be a demand for pilots – but probably not a shortage. Airlines will train their own pilots. The copilot may be something of a “computer whiz” driver. Even the pilot may not do much actual flying of the aircraft except in emergencies. Commercial air travel will favor seniors and their leisure travel. First Class service may extend throughout the aircraft. Services and accommodations for seniors and others in airports will increase and include more people movers, “slidewalks” (or even moving seating), better signage, and more amenities. The impact of seniors, however, may be lessening by 2028. The leading edge of the Baby Boom will be in its early 80's. “Hub-and-spoke” travel, which mainly aids business travel, may lessen. Leisure travelers may prefer to drive rather than fly 200 miles to a hub. There may, however, be new/expanded hubs and spokes to leisure centers that serve Seniors, such as Florida.



Security, and especially cyberterrorism, will be an issue. Terrorists may try downloading viruses into air traffic control and even cockpit computers. Airplanes will need diagnostics and a quick fix, backed up by the ability to fly the airplane without the electronics, or to “wipe” software clean and quickly give control back to the pilot. Security will need to be “end-to-end”, from origin to destination, and not focused on aviation alone. Also, in this world, there may be a push to place security more firmly in Federal hands, for example, through the use of Federal rather than private sector screeners. Air cargo could be another point of greatly increased security vulnerability. The air traffic control and airport infrastructure will likely be deteriorated in 2028. A weak economy, a general lack of investment, and decline in air transport will lead to this decline in infrastructure. Capacity should be adequate, with congestion not a problem. Air traffic control in 2028 could be in the hands of a Performance-Based Organization (PBO), separate from but controlled by FAA or its successor. Even if the PBO works well, however, it could be dissolved in 2028 in response to deterioration of air travel and aviation infrastructure. The actual control of aircraft could be largely a monitoring function. If ATC is still done by a PBO, with movement to free flight, fewer flights, and less congestion, there will probably be reduced need for controllers. Safety could still be a role for FAA. The U.S., however, could take a back seat to international organizations such as ICAO and to Europe. If the U.S. fails to keep its standards current, Europe would take the lead in setting standards, with greater U.S. reliance on ICAO for standards that protect and support U.S. needs. ICAO, in turn, could by 2028 work more with regions such as Europe than with individual countries. FAA, finally, could have a useful R&D role, and a revitalized role to promote aerospace where the economy is in decline and government action is desired to “jump start” it.

## GLOBAL CLIMATE CHANGE

<p><b><i>Dimensions:</i></b></p> <p><b>U.S. Economy:</b> Down</p> <p><b>Globalization:</b> Up</p> <p><b>Role of Government</b> Up</p> <p><b>Demand for Change</b> Up</p> <p><b>In Transportation</b></p>
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In this scenario, new computer models unlock conclusive proof of global warming, beyond a reasonable doubt. By 2028, there has been thirty years of increasingly severe weather, with the final decade containing catastrophic human and physical destruction. Seventy percent of the world’s population lives in coastal areas, and rising ocean levels have inundated low-lying areas with flooding and mudslides. The entire world understands that everyone must change to recover the environment, but disasters are now so frequent that government action to reverse the situation is paramount. Government is strapped.

The year 2028 is a time of diminished expectations. The Crisis will pass, but limitations on consumption will be with us indefinitely. Constrained, expensive transportation in all modes is a key issue. Reducing emissions through fuel economy or new technology drives up costs. Patterns of housing, work, and travel all become more emissions- efficient. People live near work and only rarely use personal vehicles for individual trips. The Mississippi Valley / Great Lakes basin has become a haven from stressed coastal areas. While economic and transportation resources are constrained, leisure time has increased. Still, there is a 24-hour economy in order to be most efficient in using existing assets. There is little money for new capital investment.

Commercial aviation suffers in this world. Load factors, fares, and seating densities are high, and schedule frequencies are low, making air travel an unpleasant luxury. The one bright factor is that the drive to cut emissions has improved air traffic management, airline scheduling practices, and schedule reliability. Overall travel



## FAA Strategic Plan



decreases as communications fill the gap. There is still a need for time critical travel; environmental disaster recovery is a big driver. With lower demand, there are fewer airlines in 2028.

Air cargo has also declined. High costs have cut the need for overnight and other quick shipping. E-commerce has eliminated the need for most overnight document delivery while personal internet shopping tends to focus on local vendors or slower shipping methods. Competing, emission-efficient land and sea based surface travel cut demand for larger air cargo items. Lighter-than-air ships may reappear as an emissions-efficient mode to ship less time sensitive goods. The major remaining advantage of air cargo is speed, continually balanced against the need to fly with fuller loads to be profitable.

Overall aviation demand is reduced, and operations are spread throughout more hours a day as no new airports are built and hub-and-spoke scheduling continues. Many smaller communities lose air service as population concentrates into mega-cities. Road and public transportation to airports is a problem as local demand increases to hub airports. Airport surface operations change to reduce emissions. There is more towing of aircraft and no long taxi queues for departure. Airport authorities monitor emissions and airlines learn to trade credits for reducing ground pollutants to increase air service.

In this *Global Climate Change* world, older aircraft are retired more quickly than current forecasts, but without many replacements. Cockpits have the latest communication, navigation, and surveillance equipment to maximize efficiency and cope with severe weather. There is a push for more efficient airfoils, airframes, engines, and fuel technologies that have been under development (primarily in Europe), but investment capital is in short supply. High-speed rail successfully competes for intercity traffic on a few dense routes, but there is little capital for major new investments in rail, either.

Space transportation in this world continues to develop slowly. Satellites are key to several strategies to save the world. Environmental monitoring, increased and improved communications in lieu of travel, and a universal navigation system to improve transportation efficiency all depend on a reliable, safe, cost effective launch and satellite industry. The commercial space transportation sector has continued to expand, but the importance to saving the world and the high cost of failure means that there is still significant government oversight, particularly in the realm of setting technology standards and ensuring global interoperability of systems.

Business and corporate aviation has shrunk but still exists; time and flexibility are balanced against costs. This equation frequently favors business aviation when the motivation is emergency response and disaster recovery. The passengers tend to be technical specialists and the specialized equipment they need, not corporate executives. The pressures to convert general aviation airports to other commercial functions are reduced with the slower economy. Recreational general aviation survives, but fuel for piston aircraft is taxed heavily and so the largest general aviation sector is gliders.

Increased government authority is a given in this *Global Climate Change* world as it rallies to save itself. The future of the FAA depends on a policy choice – will there be extensive re-regulation of routes, schedules and services, or will the government rely on market responses to new incentives and taxes? The group of experts assembled at FAA felt that market forces could be very responsive if given the proper set of incentives. Under either alternative, FAA will need to focus on efficient aircraft movements. FAA will complete the transition to Free Flight and ensure that controllers have the tools and expertise to be partners with airline dispatchers and pilots in efficiently moving aircraft.



## GLOBAL PROSPERITY

<b>Dimensions:</b>	
<b>U.S. Economy:</b>	<b>Up</b>
<b>Globalization:</b>	<b>Up</b>
<b>Role of Government</b>	<b>Down</b>
<b>Demand for Change In Transportation</b>	<b>Down</b>

In this 2028 scenario, the business of the world is business. The marketplace is international, with 24-hour commerce and instant communication. The global economy is undergoing unprecedented growth. The world is relatively peaceful but laced with corruption and cybercrime.

In the United States, the federal government has seen many traditional authorities flow away to state and local government, and also to the marketplace, corporations, and international organizations. The new society has been good; poverty is decreasing, the middle class is growing, and the wealthy are far more wealthy. Some sociologists lament that an entire generation of kids has grown up without much parental contact.

Transportation systems are now built by private consortia that also set system standards. This is a fast-paced world of networked global economies and opportunistic, no-holds-barred competition. Government at all levels mainly supports commerce. Even environmental issues have been partly addressed; hybrid cars reduce emissions, and businesses consider pollution a form of waste. The trade-off is little or no free time, as the world is working 24 hours a day. Everything is done virtually, from business to shopping to vacations. Time is of the essence. Spending a day on an airplane to get to a meeting is rarely done, and vacations are shorter, wired, and within hours of home.

The passenger airlines prosper. Changing demographics may change travel patterns. Leisure air travel increases as people with more disposable income seek to get to their leisure destinations rapidly. Business travel will be tempered by vast increases in e-commerce. Air travel is likely to concentrate on passenger movement, not comfort. Frequency will be important to travelers, as will efficient door-to-door movement and minimizing delays at airports. Demand and supply of pilots will be an issue. Airlines will have to self-train additional pilots to meet their needs. Airlines will also need more engineering skills, particularly those associated with monitoring automated systems.

In this scenario a few international mega-carriers will probably control regional service as well. Issues of competition at specific airports and ownership and use of slots are likely to continue. A reduced Federal Government, however, may play a smaller part in fostering competition just as aviation competition pervades the rest of the world.

Air cargo will boom. Cargo will be a 24-hour operation and could affect the airlines' hub-and-spoke systems. Cargo and passenger movements may overlap; the part to fix a machine may come with a technician to install it. Cargo airlines may sell capacity for passenger air travel, particularly certain banks of time. There are vast infrastructure needs and questions in the air and on the ground associated with next day delivery. Businesses may have to adapt, for example, to fast deliveries at 3 AM. There may be neighborhood drop-off boxes for fast freight, rather than direct door-to-door delivery.

There could be new types of airlines in 2028. Some will serve mostly business travel with smaller aircraft. Some will serve leisure travel, with aircraft similar in size to today's. Some airlines will mostly serve cargo, and their aircraft will become larger.

Commercial space transportation accelerates, with more space vehicles, including fully reusable vehicles, and some passenger service on sub-orbital flights to distant places on Earth, and perhaps eventually recreational trips to low-orbit hotels or the moon.



## FAA Strategic Plan



General aviation, particularly business aviation and air taxis, will enjoy boom times. Aircraft may be affordable causing the general aviation fleet to grow more vigorously than current expectations. A major challenge would be providing the infrastructure needed to serve that traffic. Another is fuel cost, which is a relatively large portion of the cost of general aviation flying. Will sufficient small general aviation airports continue to exist to serve a major increase in general aviation traffic?

Aircraft manufacturers will do well supplying the expanded aviation system. Indeed, there may be a new aircraft manufacturer by 2028, possibly a car manufacturer or a regional jet manufacturer moving up in size. There could be more of a spread in aircraft sizes. Boeing sees aircraft size going down in response to increased frequencies, especially for business travel. Leisure travel, however, remains less time-sensitive, and may allow fewer, larger aircraft. If enplanements are up and airport capacity is not, larger aircraft will be a necessity. New, larger aircraft will place their own strains on airport infrastructure. To reduce boarding times, there may be more doors and even double-decker loading, requiring changes to airport terminals. Customs processing will have to be speeded up, possibly using pre-screening before people reach the customs check-out. New, larger aircraft are also bigger targets for terrorism.

It is not clear whether today's aircraft will predominate or whether new aircraft, more tailored to tomorrow's markets, will have largely replaced the existing fleet. Capital is available for a substantial investment. A key is how well today's aircraft fit the needs of the 2028 market. Environmental concerns could also spur turnover.

Airport and airspace infrastructure is crucial to meeting increased demand. With a reduced Federal role, communities drive airport infrastructure, and not meeting their environmental needs will constrain airports. Noise is an issue, but possibly solvable.

Air traffic control is privatized in this scenario. In Britain, the ATC Corporation, operators, and the government negotiate fees for the next year. If this model were used, there could be premium charges for peak usage or certain services such as operations in adverse weather. Much could depend on the structure of the ATC Corporation (or even competitive Corporations), ownership, and the structure and concentration in the airline industry. Competition in ATC services could be possible and may be desirable.

Regulation and certification may shift from FAA to ICAO or the industry itself. FAA's regulatory role could be reduced to liaison with international entities, some standard setting, accident investigation, and some oversight, such as approving examiners and designees. FAA and even DOT could be merged into another Department.

Commercial space transportation could see an expanded FAA role. The commercial space transportation industry seeks more FAA involvement today, and an accident could strengthen that demand for safety. Regulation could, however, be done by a global body. Another factor is what happens to NASA in this private sector world.

Finally, there may be a Federal role in promoting and funding basic research that has application to aerospace.



## B. FAA Support for DOT Strategic Planning

This FAA Strategic Plan is tightly aligned with the Department’s mission, vision, goals, and performance measures as expressed in the 2000 DOT Strategic Plan. FAA started its planning with the objective of aligning FAA’s plan with DOT’s. FAA relied heavily on the DOT environmental scan and scenario development and linked FAA and DOT goals in its strategic planning effort. FAA adopted DOT’s distinction between mission-based goals and an Organizational Excellence goal (for FAA, goals). FAA has reinforced the alignment between the two plans in its selection of Corporate Projects.

FAA’s Strategic Plan goals directly support the DOT goals, as follows:

<b>DOT</b>	<b>FAA</b>
<b>SAFETY:</b> Promote public health and safety by working toward the elimination of transportation-related deaths and injuries.	<b>SAFETY:</b> By 2007, reduce the U.S. aviation fatal accident rates by 80 percent from 1996 levels.
<b>MOBILITY:</b> Shape an accessible, affordable and reliable transportation system for all people, goods, and regions.	<b>SYSTEM EFFICIENCY:</b> Provide aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.
<b>ECONOMIC GROWTH:</b> Support a transportation system that sustains America's economic growth.	<b>GLOBAL LEADERSHIP:</b> Commitment to worldwide improvements.
<b>HUMAN AND NATURAL ENVIRONMENT:</b> Protect and enhance communities and the natural environment affected by transportation.	<b>THE ENVIRONMENT:</b> Our Responsibility. Understanding and reducing environmental impacts.
<b>NATIONAL SECURITY:</b> Ensure the security of the transportation system for the movement of people and goods, and support the National Security Strategy.	<b>SECURITY:</b> Prevent security incidents in the aviation system.
<b>ORGANIZATIONAL EXCELLENCE:</b> Advance the Department’s ability to manage for results and innovation.	<b>PEOPLE:</b> Model Work Environment.
	<b>REFORM:</b> Framework for Accomplishment

The Federal Aviation Reauthorization Act of 1996 sought to eliminate a dual mandate of regulating safety and promoting aviation by focusing FAA on safety. So the FAA Strategic Plan recognizes the Department’s lead on Economic Growth. FAA supports the Department’s goal through projects that ensure the safety, security, and efficiency of U.S. aerospace as part of the Nation’s and the world's overall transportation system. FAA also supports Economic Growth through partnerships with the public and by reaffirming FAA’s commitment to expand contract opportunities for socially and economically disadvantaged business. FAA has implemented a Mentor/Protégé program that encourages our large vendors to mentor such businesses.

FAA’s support for the DOT plan goes deeper than the goals. FAA is a full partner in DOT planning. FAA is committed to ONE DOT and to addressing aerospace goals in the context of improving the safe, secure, and efficient transportation of American people and goods across the United States, around the world, and through space.



## C. Evaluations in Support of FAA Strategic Planning

Numerous evaluations have supported this Strategic Plan and further evaluations are scheduled that will affect future plans. While not all meet the Government Performance and Results Act (GPRA) definition of a program evaluation, all have or will affect this plan and its successors. Summaries of some key evaluations follow.

### Evaluations that have Supported This Strategic Plan

A host of program and other evaluations, most done externally to FAA, have had a strong influence on this Strategic Plan. In particular, the General Accounting Office (GAO) and the DOT Office of the Inspector General (DOTIG or IG) have identified "Management Challenges" for DOT and for FAA. Key evaluations include:

#### Management Challenges for FAA

Neither GAO nor DOTIG have released new Management Challenges so far in FY 2002. GAO's most recent report is **GAO-01-253, Major Management Challenges and Program Risks, Department of Transportation, January 2001**. DOTIG most recently summarized its recommendations in Congressional testimony, **CC-2002-02, Department of Transportation Budget for Fiscal Year 2003, February 2002**. Some recommendations have already been addressed, and some apply to modes other than FAA. This **Strategic Plan** sets down the framework for addressing FAA challenges through goals such as Safety and Reform and strategies such as Accident Prevention (Safer Skies) and Financial and Acquisition Reform. The **FAA Strategic Plan Supplement** includes corporate projects such as the Air Transportation Oversight System (ATOS) and the Operational Evolution Plan to address many management challenges. Key management challenges include:

#### **Aviation Safety:**

- Safety Indicators: reversing the sharp increases and record highs in runway incursions and controller operator errors.
- Safety Workforce: Training and certifying the controllers-in-charge (CIC); realizing productivity gains from the NATCA contract; developing an air traffic controller pipeline to backfill for retirements.
- Safety Oversight and Rulemakings: Strengthening ATOS; reducing protracted delays in responding to identified safety issues; issuing long delayed rulemakings.

#### **Aviation System Capacity and ATC Modernization:**

- Strategy for Addressing Delays: Developing a strategic plan for addressing capacity shortfalls, delays, and cancellations; developing and implementing a uniform system for tracking delays, cancellations, and their causes; developing "capacity benchmarks" for the Nation's top 30 airports.
- Establishing FAA's Air Traffic Control Services as a Results-Based Organization: Implementing structural reforms directed in AIR-21; establishing a cost accounting system and performance metrics.
- Managing FAA's efforts to use new technology to increase safety, efficiency, and capacity.
- Assessing FAA's role in planning for nationwide airport infrastructure needs.

#### **Surface and Airport Infrastructure:**

- Ensuring oversight stewardship for federal funds to prevent fraud, waste and abuse and avoid scandal in administering ... AIR-21.

#### **Transportation Security:** (Some is OBE/an issue for the new Transportation Security Administration)

- Maximizing the effectiveness and usage of explosives detection equipment.
- Completing pending rulemakings on certification of screening companies, airport access requirements, and accounting for active airport identification cards.



- Implementing the Airport Security Improvement Act of 2000, which will strengthen background investigation requirements for airport personnel.

### **Computer Security:**

- Completing the vulnerability assessments of infrastructure mission-critical systems.
- Evaluating the security impact of the proposed integration of National Airspace System air traffic control and FAA administrative systems.
- Completing background checks on contractor and DOT employees.
- Implementing security measures against attacks on DOT computers and improving controls over passwords to prevent fraud.

### **Department Business Practices: Financial Accountability**

- Sustain a clean opinion on the financial statements covering DOT's \$58 billion budget depends heavily on: ... the accuracy of FAA's multi-billion dollar property account and developing a credible system for tracking FAA's property.
- Developing and implementing a departmentwide cost accounting system (CAS) -- particularly in FAA where its proposed CAS has been under development for over 4 years. FAA will not be able to operate as a results-based organization or accurately account for the cost of air traffic control operations without a CAS.

## **Key Evaluations**

These management challenges and a host of other recommendations affecting all aspects of the aerospace system are included in the following list of policy analyses, program evaluations, and assessments that have affected this plan.

**Security Evaluations.** While civil aviation security has been transferred to TSA, it is still a concern of FAA. GAO and others have issued many security evaluations over the years. GAO issued 5 reports between September 20 and September 29: Aviation Security: Terrorist Acts Illustrate Severe Weaknesses in Aviation Security (GAO-01-1166T); Aviation Security: Terrorist Acts Demonstrate Urgent Need to Improve Security at the Nation's Airports (GAO-01-1162T); Aviation Security: Weaknesses in Airport Security and Options for Assigning Screening Responsibilities (GAO-01-1165T); Aviation Security: Vulnerabilities in and Alternatives for, Preboard Screening Security Operations (GAO-01-1171T), and Aviation Security: Additional Controls Needed to Address Weaknesses in Carriage of Weapons Regulations (RCED-00-181).

Earlier, GAO, issued a longitudinal, cross-sectional evaluation of screener performance (*Long Standing Problems Impair Airport Screeners' Performance*, RCED-00-75, June 2000). A DOTIG audit of aviation security in March 2000 recommended increasing the use of explosives detection systems (EDS) for screening checked baggage. Finally, the National Research Council's October 1999 report on *Assessment of Technologies Deployed to Improve Aviation Security* included recommendations on EDS certification testing, evaluation of trace explosives detection devices, and the development of an aviation security system architecture and deployment plan.

Probably the most important security evaluation in recent history was that of the *White House Commission on Aviation Safety and Security (February 1997)*. The Commission made 57 recommendations, some as fundamental as setting a national goal to reduce the fatal aviation accident rate by 80 percent in 10 years (the goal adopted in this Strategic Plan). It recommended making aviation security a national security matter, and accelerating modernization of the FAA's air traffic management system by almost a decade. FAA also undertook evaluations of its own, including evaluating the Threat Image Projection (TIP) system that will form the basis for testing screeners in the new security system. All these recommendations are being addressed by TSA in view of the legislative mandate to federalize the screener work force.



## ***Aircraft Noise Exposure.***

This evaluation, completed in 2000, asked whether noise reductions from the phase-out of noisy Stage 2 aircraft in the 1990's had actually reduced the number of people exposed to excessive noise (a Day/Night Level [DNL] of 65 decibels or higher) as much as had been hoped for. The goal was to reduce the number of people so exposed from something like 3 million in 1990 to only 600,000 in 2000. Continuous compliance monitoring verified that the Stage 2 fleet had been 100 percent phased out by December 31, 1999, as required by law. Using a new, more accurate noise exposure model, FAA calculated that the number of people exposed to DNL 65 noise in 2000 was in fact around 448,000 people nationwide. FAA continues to fund noise reduction activities, is working with ICAO on the next generation of aviation noise reduction requirements, and continues to validate the methodologies used to assess aircraft noise exposure.

## ***Safer Skies.***

The heart of Safer Skies is for FAA and aviation to evaluate jointly the recurrent causes of aviation accidents and develop interventions to address them. Areas where evaluations have been completed include cabin safety and controlled flight into terrain.

Evaluation has been completed on causal factors related to approach and landing accidents, controlled flight into terrain, and uncontained engine failure. Interventions are moving forward. FAA issued a Notice of Proposed Rulemaking (NPRM) to mandate Terrain Awareness and Warning Systems (TAWS) on passenger aircraft and is working on the final rule. Concurrently, the major airlines have already begun installing these systems and Boeing is installing them in its production lines. Other achievements include publication of eight final rules on uncontained engine failures in April 1999. Finally, FAA and the aerospace community developed a plan and near term initiatives to address runway incursions, and virtually all those initiatives have now been completed.

Safer Skies has also addressed cabin safety. Working through Partners in Cabin Safety (PICS), FAA revalidated its causal factor analysis on cabin safety problems. FAA and the airlines then implemented a campaign to provide the public with information to help address problems due to passenger interference with flight, passenger seat belt use, carry-on baggage, and child restraint. These include the "Turbulence Happens" program to encourage seat belt use in aircraft, in support of the overall DOT campaign to encourage seat belt use in all modes of transportation.

## ***Free Flight.***

This project seeks to deliver, use, and evaluate the performance and benefits of new capabilities that will facilitate collaboration between the FAA and system users and support controllers' decisions to approve pilots' requests to fly more optimal routes to their destinations. Phase 1 examined 5 capabilities:

- The **Surface Movement Advisor (SMA)** began providing aircraft arrival information to airlines at Detroit Metro and Philadelphia Airports starting in December 1998, and now serves 4 more airports.
- **Collaborative Decision-Making (CDM)** provides an initial collaborative routing capability based on an electronic chalkboard. Operational testing is complete. Runway Visual Range information is available from Boston and Memphis, and military Special Use Airspace status information is now provided on CDMNet.
- The **Conflict Probe-User Request Evaluation Tool (URET)** provides two-way probe capability to the Indianapolis and Memphis Air Route Traffic Control Centers (ARTCCs), and government acceptance testing is complete.



## ***National Civil Aviation Review Commission (NCARC).***

Congress established NCARC with aviation funding and safety task forces. The funding task force issued a preliminary report in September 1997. Key recommendations were:

- FAA budget treatment must change. Revenues raised from aviation users must be spent for aviation purposes.
- FAA management must become performance-based and operated as a business, with a bottom line and standard business practices such as a cost-accounting system.
- FAA's revenue stream must become cost based, with a cost-based user charge for commercial passenger and cargo air carriers and a continued general aviation fuel tax.
- FAA must do better at managing and controlling ATC operating costs and increase its capital investment in air traffic control modernization.
- Airport capital financing requirements must be met. The projects worthy of funding vastly outnumber the amount of funds available. The Airport Improvement Program should be funded at a minimum of \$2 billion annually over the next 5 years.

NCARC was also charged to evaluate FAA safety programs. The Safety task force held a public hearing on October 8, 1997. It released recommendations in a report titled, "Avoiding Aviation Gridlock and Reducing the Accident Rate," on December 12, 1997. The report states that, while the commercial aviation accident rate is extraordinarily low, it has shown little improvement over the last 30 years. A flat accident rate coupled with an expected healthy growth in aviation will mean an increasing number of accidents, an unacceptable result. The accident rate must be reduced significantly through a comprehensive and concerted program by government and industry. The Commission made four specific recommendations to improve safety:

- FAA and the aviation industry must develop a strategic plan to improve safety, with specific priorities based on objective, quantitative analysis of safety information and data.
- Aviation safety programs in industry and government need to be improved by establishing more effective safety risk management programs.
- FAA safety programs need to become performance oriented.
- Government and industry should expand on their programs to improve aviation safety in other parts of the world.

These recommendations build on previous recommendations, including those of the White House Commission. This Strategic Plan highlights safety as a key mission goal, and sets as FAA's target an 80-percent reduction in the fatal accident rate in the next 10 years. It also sets FAA's priorities for the years ahead-- safety information sharing and analysis, addressing recurrent causes of accidents, and improving surveillance and inspection. The Aircraft Certification Systems Evaluation (ACSEP) is specifically developed to conduct evaluations of safety risk, and the Air Transport Oversight System (ATOS) is designed to target surveillance at areas of greatest potential safety impact. A major purpose of the regulatory reform carried out in the last few years is to produce simple, understandable, performance-based regulations. Global leadership is a key corporate strategy to achieve safety, and projects such as the Trinational Controlled Flight Into Terrain (CFIT) Committee are intended to improve aviation safety worldwide.

## ***Accountability Board.***

A team of 12 FAA employees from throughout the agency conducted an extensive, independent evaluation of the first year of the FAA Accountability Board. The Board provides quick, informal oversight of FAA managers to ensure that allegations of sexual harassment or misconduct are dealt with timely, consistently, and fairly across



FAA. The 1999 longitudinal study compared the results of the 1997 Employee Attitude Survey to the evaluation team's survey of more than 1,800 FAA employees. The team found a 50 percent reduction in the number of supervisory and non-supervisory employees reporting that sexual harassment is a problem in the FAA workplace. Based in part on those results, the Board's scope was expanded to include other areas of harassment or discriminatory behavior.

### ***Internal Evaluations of FAA Acquisition Reform: The First, Second, and Third Years (April 1996-March 1999).***

The ARA Evaluation Staff has conducted internal FAA evaluations each of the first 3 years of Acquisition Reform. The first year report found measurable progress in implementing the Acquisition Management System (AMS), reduced procurement times, cost savings to industry, and an increase in obligations to small business. It also found a decrease in obligations to socially and economically disadvantaged businesses, problems with the new dispute resolution process, a lack of consistent measurement capability, and minimal progress in establishing a full life-cycle cost perspective.

The second annual evaluation looked at Mission Analysis, Investment Analysis, Baseline Management, the Joint Resources Council, the Integrated Product Development System, and Procurement. The evaluation concluded that AMS "Has been in place for two years, and the FAA has made significant progress toward implementing procedures designed to achieve cost and schedule goals. After the second year, the AMS process was moving in the right direction but it was still too early to validate the success of acquisition reform." The evaluation's 14 recommendations included better identifying and prioritizing Mission Need Statements and better organization of responsibilities, development of baseline data, and planning for future funding needs.

For the third evaluation, the FAA Acquisition Executive tasked the Program Evaluation Branch to review primarily how the agency is doing since acquisition reform. Overall, the evaluation team found that the agency's procurement efforts were achieving faster awards, were achieving competition, and were meeting small business goals; however, FAA was failing to meet its goals for awarding contracts to small business concerns owned and controlled by socially and economically disadvantaged individuals. In general, the evaluation team found that the agency's program results were on track to achieve success in terms of ensuring programs support the FAA mission, deliver planned product performance results, and meet customer needs, but were not on track to meet cost and schedule baselines approved for individual programs.

### ***GAO Studies.***

GAO has done many evaluations of or affecting FAA programs over the years, including:

- **Managing for Results: Federal Managers' Views on Key Management Issues Vary Widely Across Agencies** (GAO-01-592). GAO interviewed managers across government, including approximately 100 FAA managers. FAA ranked at the bottom on top leadership commitment to achieving results and employees receiving positive recognition for helping accomplish strategic goals. FAA takes this critique very seriously. One result is that this update discusses much more systematically how FAA's ongoing activities contribute to achieving FAA's strategic goals.
- **Aviation Finance: Distribution of Airport Grant Funds Complied with Statutory Requirements** (GAO-02-283). GAO concluded that total funds awarded by FAA was consistent with AIP funds available for obligation for FY 1996-2000,



and grants were made in accordance with statutes. GAO found, however, that FAA awarded more discretionary funding than required to some airports and projects, and that small airports received more than large airports. FAA is reviewing these findings.

- **National Airspace System: Long Term Capacity Planning Needed Despite Recent Reductions in Flight Delays** (GAO-02-185). GAO found that the Operational Evolution Plan (OEP) will add significant capacity to the nation's air transport system, but that most airports have only limited ability to increase capacity, especially by adding new runways. GAO concludes that the air transport system has needs beyond initiatives now underway. GAO suggests new airports, better demand management within the existing system, and developing other modes of intercity travel such as high speed rail. FAA is exploring these possibilities.
- **Air Traffic Control: FAA Enhanced the Controller-in-Charge Program, but More Comprehensive Evaluation is Needed** (GAO-02-55). GAO found that the materials for FAA's CIC training program were thorough and comprehensive, but FAA has little assurance that the training was effectively presented and achieved its objectives. FAA has not obtained evaluations from most of the students or conducted an overall evaluation. FAA has not consistently implemented its quality assurance procedures for the CIC expansion. To fully assess productivity gains from its initiatives, FAA believes it needs more data. FAA expects to have a system in place to capture productivity data by FY 2002.
- **Aviation Rulemaking: Incomplete Implementation Impaired FAA's Reform Efforts** (GAO-01-950T), and **Aviation Rulemaking: Further Reform is Needed to Address Long-Standing Problems** (GAO-01-821). These studies found that the FAA rulemaking process varies widely. For example, while 60 percent of Congressionally mandated rulemakings are begun within 6 months, another quarter take over 5 years to be initiated. After FAA's 1998 rulemaking reforms, the median time to review and finalize a rule actually increased. GAO recommended better management oversight and prioritization and performance incentives. These recommendations will be useful as FAA continues to reform its rulemaking.
- **Air Traffic Control: Role of FAA's Modernization Program in Reducing Delays and Congestion** (GAO-01-725T). In this testimony, GAO found that the NAS is facing significant capacity problems. Inefficiencies in the ATC system contribute. Modernizing equipment and other ATC changes should help increase capacity 5-51 percent. However, improvements have fallen short so far. There are schedule, cost, and performance problems. FAA must institute a performance-oriented culture and address the wave of retirements among aviation professionals (such as controllers) expected over the next decade. Response: FAA recognizes these concerns and is working on them. For instance, FAA's Workforce Planning Initiative, identified in this plan, is a major part of FAA's effort to address upcoming retirements.
- **Safety: Accident Prevention:** T-RCED-00-229, RCED-00-111, and RCED-98-7 and 79 address this area, focusing on Safer Skies, human factors aspects, and the Wide Area Augmentation System (WAAS) to the Global Positioning System (GPS) that will allow precision approach and landing. FAA is addressing these and similar issues as part of Safer Skies and the GPS Implementation Corporate Projects.
- **Safety: Regulation and Certification:** RCED-99-183, and RCED-98-6 and 21 address regulation and certification issues, including FAA's new inspection system, oversight of repair stations, and weaknesses in FAA inspection and enforcement. FAA is addressing those issues as part of the Air Transportation Oversight System (ATOS) program and Safety Risk Policy Implementation, which



## FAA Strategic Plan



seek to improve the targeting of inspections and procedures and training for inspectors.

- **Aviation Security and White House Commission Recommendations:** T-RCED/AIMD-00-142, T-RCED-00-125, and RCED-98-102 address issues involved in establishing a strong security baseline nationwide. They find that implementation of some White House Commission recommendations has been delayed, and that some vulnerabilities still exist, particularly in the area of screeners. Recent FAA efforts, including continued further implementation of White House Commission recommendations and new systems and rulemakings with respect to screeners and certifying screening companies, address these findings.
- **Information Security:** GAO-AIMD-00-55 and 252, T-AIMD-00-330, GAO-01-171, and AIMD-98-155 all address FAA computer and information security. In response, FAA has appointed a Chief Information Officer (CIO) and charged him with responsibility for information security. Information security is a strategy in this Strategic Plan, and FAA has identified an Information Systems Security Corporate Project in both the [FAA Strategic Plan Supplement](#) and the annual Performance Agreement.
- **System Efficiency: NAS Modernization:** T-RCED/AIMD-00-142, T-RCED-00-125, and RCED/AIMD-99-88 address key NAS Modernization elements, including the Display System Replacement (DSR), FAA's GPS-based navigation system, and investment management of NAS modernization. DSR is a success story from which GAO draws useful lessons. FAA recognizes the issues GAO has raised regarding GPS and the navigation system and is working to address them in its GPS Implementation Corporate Project. FAA continues to reform its acquisition management system, and the new Performance-Based Organization should lead to more reforms.
- **FAA Reform:** Several GAO reports, including T-RCED/AIM-00-87, T-AIMD-99-122 and AIMD-99-212, address FAA reform and particularly FAA financial reform. FAA has made substantial progress, achieving a clean audit, and moving strongly to implement a Cost Accounting System (CAS), a Labor Distribution System (LDS), and initiating a program of Cost and Performance Management (C/PM) that builds on those beginnings. The Cost Accounting System (CAS)/Cost and Performance Management is a Corporate Project under the Reform organizational excellence goal. The recently announced Air Traffic Organization (ATO), a performance-based organization for air traffic control, is a platform for further FAA reforms.
- **Aviation and the Environment:** RCED-00-57, 98, 153, and 222 address aviation environmental issues, particularly airport noise and aircraft emissions. FAA has long had an Environmental strategic goal. Airport Improvement Program (AIP) funds help address environmental issues around airports. FAA works with local jurisdictions toward noise-compatible land use around airports. FAA is working with international organizations on a new generation of international noise standards. FAA programs such as Free Flight, which lead to more direct and efficient airline routes, will reduce emissions. Finally, FAA works with NASA and others on research toward quieter and reduced-emissions aircraft engines.
- **Airport Financing:** RCED-00-275R and 285R and RCED-98-226 address airport financing and use of funds. In response, FAA works with local airport authorities to ensure that Federal airport funds are used for airport purposes. RCED-98-226 addressed runway pavement condition; in response, FAA has set a Performance Plan goal to maintain in good or fair condition at least 93 percent of runways at all commercial service airports and reliever airports, as well as selected general aviation airports. The goal has been met or exceeded every year since FY 1997.
- **GPRA Issues:** In addition to the above studies, GAO has undertaken evaluations related to GPRA issues that help inform this plan. Examples include GAO-01-115,



Managing for Results: Emerging Benefits From Selected Agencies' Use of Performance Agreements, 10/30/2000; GAO/RCED-00-201R, Observations on the Department of Transportation's Fiscal Year 1999 Performance Report and Fiscal Year 2001 Performance Plan, June 30, 2000G; GD-98-44, Managing for Results: Agencies' Annual Performance Plans Can Help Address Strategic Planning Challenges, January 1998; GGD-97-83, Managing for Results: Regulatory Agencies Identified Significant Barriers to Focusing on Results, June 1997; RCED-97-208R, Results Act: Observations on the Department of Transportation's Draft Strategic Plan, July 1997; and GGD-97-56, Managing for Results: Enhancing the Usefulness of GPRA Consultations Between the Executive Branch and Congress, March 1997.

## ***Recent Office of the Inspector General (OIG) Reports***

The DOT OIG has conducted hundreds of audits and studies of FAA programs since 1992. These reports reach all parts of FAA, from air traffic control, system modernization, and research to diversion of airport revenue, sexual harassment, and the Year 2000 computer challenge. A sample of those studies includes:

- Security-related studies issued since September 11 include, Status of Airline Security After September 11 (11/14/01), FAA En-route Center Computer Security and Controls (11/5/01), Initial Findings of Review of Argenbright Security, Inc. (10/16/01), Deployment and Use of Security Technology (10/11/01), Actions Needed to Improve Aviation Security (Testimony, 9/25/01), Aviation Security in the United States (Testimony, 9/21/01), and Aviation Security in the United States (Testimony, 9/20/01).
- Air Transportation Oversight System, AV-2002-088, April 8, 2002
- Acquisition of FAA's Weather and Radar Processor, AV-2002-84, February 28, 2002
- FAA's Financial Statements for Fiscal Years 2001 and 2000, FI-2002-82, February 27, 2002
- FAA Cost Accounting System and Practices - 2001 Status Assessment, FI-2002-72, January 10, 2002
- Free Flight Phase 1 Technologies: Progress to Date and Future Challenges, AV-2002-67, December 14, 2001
- FAA Air Traffic Services Planned Labor Distribution Reporting, FL-2002-16, October 30, 2001
- Further Delays in Implementing Occupational Safety and Health Standards for Flight Attendants Are Likely, AV-2001-102, September 26, 2001
- Status Report on the Standard Terminal Automation System (STARS), CC-2001-300, September 13, 2001
- Replacement of FAA Telecommunications Systems, FL-2001-076, August 21, 2001
- Actions to Enhance Capacity and Reduce Delays and Cancellations, CR-2001-075, August 17, 2001
- Observations on the Automated Surface Observing System, AV-2001-73, July 26, 2001
- Despite Significant Management Focus, Further Actions Are Needed to Reduce Runway Incursions, AV-2001-066, June 26, 2001
- Compensation Issues Concerning Air Traffic Managers, Supervisors, and Specialists, AV-2001-064, June 15, 2001
- Air Carriers' Compliance with FAA's Pilot Rest Regulations, CC-2001-122, June 8, 2001
- Fiscal Year 2000 FAA Financial Statements, FL-2001-36, March 1, 2001
- Status Assessment of FAA's Cost Accounting System and Practices, FL-2001-023, February 28, 2001
- Design of the Cost Accounting System for Research and Acquisitions, FI-2001-013, December 18, 2000



- Actions to Reduce Operational Errors and Deviations Have Not Been Effective, AV-2001-011, December 15, 2000
- Airport Noise Compatibility Program, AV-2001-012, December 14, 2000
- Controls Over Airport Identification Media, AV-2001-010, December 7, 2000
- Observations on Efforts to Address Concerns about Aircraft Wiring, AV-2001-004, October 27, 2000
- Oversight of Manufacturers' Quality, AV-2001-003, October 11, 2000
- Technical Support Services Contract: Better Management Oversight and Sound Business Practices are Needed, AV-2000-127, September 28, 2000
- Survey of the Federal Aviation Administration's Integrated Product Development System, AV-2000-110, August 29, 2000
- Observations on FAA's Satellite Navigation Efforts, AV-2000-113, July 26, 2000
- Air Carrier Flight Delays and Cancellations, CR-2000-112, July 25, 2000
- Interim Report on Airline Customer Service Commitment, AV-2000-102, June 27, 2000
- FAA's Use of RTCA, Inc. as an Advisory Committee, AV-2000-095, May 15, 2000
- Proposed Rulemaking on Collection Costs Associated with Passenger Facility Charges, FE-2000-087, April 27, 2000
- Aviation Security (multiple studies; most recent was AV-2000-076, April 19, 2000)
- Contract Towers: Observations on FAA's Study of Expanding the Program, AV-2000-079, April 19, 2000
- Key Safety, Modernization, and Financial Issues, AV-2000-070, March 23, 2000
- Improving Aviation Safety, Efficiency and Security: FAA's FY 2000 Request for Research, Engineering, and Development, AV-2000-054, March 15, 2000
- Fiscal Year 1999 Financial Statements, FE-2000-060, February 29, 2000
- Modernizing the Federal Aviation Administration: Challenges and Solutions, AV-2000-039, February 17, 2000.

While FAA did not agree with all recommendations, it concurred with many. Resulting changes inform many FAA efforts.

## **Scheduled Evaluations, Studies, and Reports**

Evaluations and reports are scheduled that will affect FAA planning. They include program evaluations, but also other evaluations and reports that, while not addressing program effectiveness, will help programs achieve their goals.

The schedule of those evaluations, however, is fluid. The reader is referred to the most recent Department of Transportation Strategic and Performance Plans, which contain a schedule of planned evaluations. Within FAA, the Office of Performance Management (APF), under the Chief Financial Officer, coordinates and reports on (but does not conduct or supervise) FAA evaluations. The reader may contact FAA's Performance Planning Division (APF-200) at FAA headquarters.



## D. FAA Support of Requirements of the Government Performance and Results Act of 1993 (GPRA)

The FAA Strategic Plan strongly supports GPRA implementation. FAA meets the requirements of GPRA in support of the Department and because GPRA is a good, commonsense approach to strategic planning and management.

GPRA requires the following from a strategic plan: a comprehensive mission statement; general goals and objectives; a description of how they will be achieved; a description of how performance goals included in the agency Performance Plan relate to the Strategic Plan's goals and objectives; a description of program evaluations that influenced the plan and a schedule for future evaluations; coverage of at least 5 years; consistency with that the agency's Performance Plan; consultation with Congress and those affected by the plan; and drafting by Federal employees.

Based on these requirements and GPRA's legislative history, Congress has developed a set of grading criteria consisting of 10 evaluation factors, each weighted equally and rated on a 10-point scale. The following briefly addresses how this plan addresses each factor.

**Mission Statement:** The FAA's mission statement covers FAA's major functions and presents the ultimate outcome--a safe, secure, efficient aerospace system--that FAA seeks to achieve, working in close cooperation with aerospace worldwide. The mission is firmly grounded in legislation, including Title 49, United States Code; the Commercial Space Launch Act of 1984; and the Federal Aviation Reauthorization Act of 1996 that strengthened FAA's focus on its safety mission.

**General (strategic) goals and objectives:** FAA goes beyond the requirements of GPRA by specifying, for each outcome-oriented, mission-based general goal, how FAA will measure success and what targets FAA has set. FAA considers the goals challenging but achievable and comprehensive in their coverage of major aspects of FAA's mission.

**Strategies to achieve goals:** FAA's mission-based goals are supported by strategies and by specific, measurable projects. Actions FAA will take to achieve its goals are clearly stated, especially in the near term.

**Relationships between general goals and annual performance goals:** FAA's Strategic Plan includes long-range performance goals for each general goal and the GPRA performance goals that support them. The [FAA Strategic Plan Supplement](#) presents FAA performance goals and projects FAA is implementing to achieve them. FAA has developed these performance goals in support of the Department of Transportation's annual performance plan. FAA's intention is that future-year performance plan goals should tie directly to the longer range, more general performance goals in the Strategic Plan.

**Key external factors:** Appendix A describes key factors that will affect FAA and the aerospace community under 4 different scenarios of the future. It is the product of major efforts by the Department of Transportation working with the entire transportation community, then of FAA working with the aerospace community.

**Program evaluations:** Appendix C directly addresses the evaluations that influenced this plan and a schedule of evaluations that will affect FAA strategic planning in the



## FAA Strategic Plan



future. Many of these evaluations are also discussed throughout the text of the plan. Key evaluations that have influenced this plan the most include the White House Commission study and the work of National Civil Aviation Review Commission (NCARC).

**Treatment of cross-cutting functions:** This is a plan for aerospace that focuses on FAA and its leadership. Partnership is a major theme and strategy in this Strategic Plan. FAA depends heavily on other Federal agencies to help achieve the aerospace goals set out here. NASA, for example, has more funding for research on aviation that FAA has; FAA could not even begin to meet its research needs without cooperation with NASA, the Department of Defense, and others. The reader is referred to the introduction and the discussion of aerospace involvement under each mission goal.

**Treatment of major management problems:** This plan recognizes a number of challenges facing FAA management, including improving FAA's culture and making its acquisition and regulatory processes more timely and responsive. It specifically recognizes and addresses the so-called "Management Challenges" raised by the General Accounting Office (GAO) and the Department of Transportation Office of the Inspector General (DOTIG). It describes both ongoing and new initiatives to address these problems, including the major acquisition and personnel reform efforts Congress has authorized and FAA is pursuing.

**Data capacity:** This plan addresses FAA's greatest data weakness, the need for a cost-based accounting system. FAA, like the rest of Government, has budgeted and accounted by line items and appropriation codes rather than by programs and fully allocated costs. FAA's budgets are still submitted on a line item basis. FAA, however, is completing work on a cost-based accounting system that is an essential component for FAA to achieve the NCARC recommendation that it become a performance-based organization. FAA obtained a clean audit opinion for FY 1999 and for FY 2001.

**Congressional and stakeholder consultations:** The 1998 FAA Strategic Plan was circulated extensively for comment and this updated plan is available on the Internet. FAA has undertaken additional consultation since then, especially at several Challenger Sessions with the aviation community. Key members of Congress and key committee staffs, along with all segments of the aerospace community including NASA, NTSB, and the Department of Defense, were invited to those sessions.

U.S. Department of Transportation

**Federal Aviation Administration**

Available on the Internet at <http://api.hq.faa.gov/pubs.asp?Lev2=3>

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