FAA Fiscal Year 2000 Annual Performance Plan

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Abstract
The Federal Aviation Administrations (FAA) FY 2000 Annual Performance Plan represents the agencys commitment to managing for results. The annual performance plan supplements the strategic plan and sets goals with measurable target levels of performance. It is the basis for developing annual program performance reports that will compare actual performance to the goals. The FAA submits its FY 2000 Annual Performance Plan in support of the FY 2000 budget request.

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CHAPTER 1

INTRODUCTION

The Federal Aviation Administration's (FAA) FY 2000 Annual Performance Plan represents the agency's commitment to managing for results. The annual performance plan supplements the strategic plan and sets goals with measurable target levels of performance. It is the basis for developing annual program performance reports that will compare actual performance to the goals. The FAA submits its FY 2000 Annual Performance Plan in support of the FY 2000 budget request.

FAA MISSION OVERVIEW

The FAA helps enable a safe, secure, and efficient global aerospace system that contributes to the national security and the promotion of U.S. aerospace safety. As the leading authority in the international aerospace community, the FAA is responsive to the dynamic nature of customer needs, economic conditions, and environmental concerns. Key elements of that mission are: [1] the regulation of civil aviation and commercial space transportation to promote safety; [2] ensuring the security of passengers and cargo on U.S. aerospace and supporting the Nation's security, and [3] the safe and efficient use of the airspace by both civil and military aircraft.

Consistent with its mission, the FAA:

- Establishes safety and/or security standards governing: (1) the design, production quality, and airworthiness of aeronautical products; (2) the operation and continuing airworthiness of aircraft, training of airmen and aviation mechanics; (3) the medical qualifications of airmen; (4) airports; (5) commercial space launches from Federal, commercial, or state-sponsored launch sites; and (6) the operation of commercial and state-sponsored launch sites.

- Issues and maintains: (1) certificates for the design and manufacture of aircraft, aircraft engines and propellers, materials, parts and appliances; (2) certificates and licenses for air traffic operators, air agencies, airmen, air operators, airports, commercial space launches, and commercial or state-sponsored launch sites; (3) medical certificates for airmen; (4) aircraft registration records, and (5) designee appointments and monitoring.

- Monitors safety and/or security performance by: (1) conducting reviews of products and reviewing safety data for trends; (2) conducting inspections and surveillance; (3) investigating alleged violations and initiating enforcement action when warranted; and (4) participating in accident and incident investigations.

- Provides approximately 600,000 air traffic services daily through facilities that include 24 air route traffic control centers, 167 radar approach control facilities, 402 airport traffic control towers, and 75 flight service facilities. The FAA operates, maintains, and modernizes

approximately 25,000 automation, surveillance, communications, navigation, and weather sensing systems in support of air traffic management.

- Oversees the Federal role in an extensive national airport system consisting of more than 3,000 public use airports.

- Conducts aerospace safety education and conducts and sponsors related research to make the aviation and commercial space transportation systems safer, more modern, and efficient; provides Airport Improvement Program (AIP) grants for airport development; administers the Passenger Facility Charge (PFC) program, which funds airport development; and aviation-related education. FAA also works with civil aviation authorities of other nations, through various international organizations, to establish international standards and agreements.

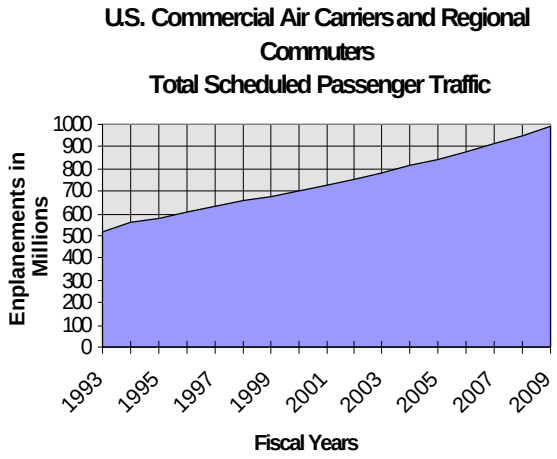
AVIATION AND THE ECONOMY

The growth of civil aviation is driven by a number of economic factors, such as Gross Domestic

tending to rise and fall together. GDP increases as passenger enplanements increase, and passenger enplanements increase as GDP increases. As use of the Nation's air transportation

system, which, in turn, requires an appropriate regulatory response. Modernizing the Nation's civil aviation system infrastructure is critical not only to the air transportation system users but also to

Facilities and Equipment (F&E) programs ensure that the air transportation system will continue the efficient and cost-effective



in an increasingly competitive global economic environment. In

about 8.8 million jobs with total earnings exceeding $230 billion.

aviation during that same year amounted to $771 billion.

services will expand steadily in the next dozen years. Annual

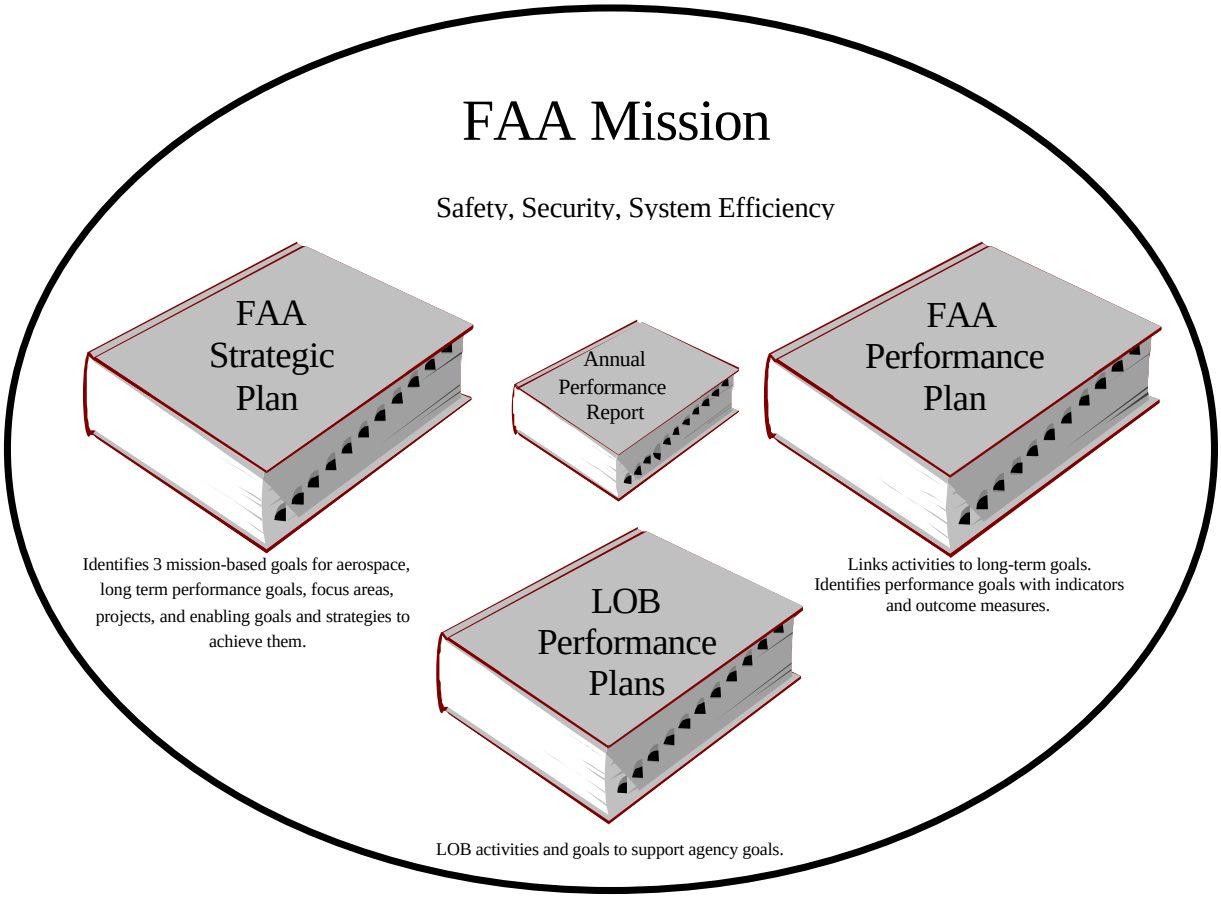
recent FAA forecast is that the number of airline passengers, for example, will increase over 56 percent, from 630 million passengers in 1997 to 987 million in 2009. Revenue passenger-miles

place more pressure on existing operations, AIP, R,E&D, and F&E programs to provide and/or foster more efficient service with increased safety.

CHAPTER 2

FAA PLANNING FRAMEWORK

agency strategic planning, agency performance planning, and lines of business performance planning. A brief overview of these elements and their connections is presented in the sections



STRATEGIC PLANNING

The setting of corporate long-term goals is a key element of the FAA strategic planning process. Goals provide a sense of direction for the agency as it plans for meeting future mission capability

agency's performance area and program planning.

FAA's 1998 Strategic Plan describes 3 mission-based strategic goals providing the direction the

1998 FAA Strategic Plan -- Overview

	GOALS
SAFETY	***rates by 80 % from 1996 levels by 2007.***
	Prevent security incidents in the aviation system.
	Provide an aerospace transportation system that meets the needs of users ***FAA and aerospace resources.***

FAA Support for DOT Strategic Planning

The FAA Strategic Plan directly supports the new DOT Strategic Plan and the Department's

First, FAA's 3 mission-based goals directly support 4 Department goals, as follows:

FAA

SAFETY: Reduce the U

related deaths, injuries, and property damage.

from 1996 levels by 2007.

a transportation system that is accessible, integrated, efficient, and offers flexibility of choices.

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

NATIONAL SECURITY: Advance the nation's vital security interests in support of national strategies such

incidents in the aviation system.

system is secure and available for defense mobility and

FAA supports the Department's HUMAN AND NATURAL ENVIRONMENT goal using an

particularly noise, represent an important challenge to the continued growth and prosperity of civil

reducing aerospace environmental impacts, and quantifying and mitigating environmental impacts.

safety and promoting aviation by focusing FAA on its safety mission. As a result, the FAA Strategic

Department's goal through projects aimed at ensuring the safety, security, and efficiency of U.S.

Growth and Trade through partnerships with the public such as the Garrett A. Morgan Technology

contract opportunities by encouraging and assisting socially and economically disadvantaged

business to participate in FAA and FAA-assisted contracts and grants. FAA has now implemented a Mentor/Protégé program which encourages our large vendors to mentor such businesses.

FAA's support for the Department's plan goes deeper than the goals. FAA supports the

Support for the Department's plan extends to the project level. Every project in the FAA Strategic Plan is to be reflected in the appropriate Administrator's Performance Agreement with the

Strategic Plan. FAA is committed to the concept of ONE DOT and to addressing aerospace goals in the context of improving the safe, secure, and efficient transportation of American people and

PERFORMANCE PLANNING

The Department of Transportation mission and the FAA statutory mission associated with it are at the apex of the planning framework and are described in several statutes. Legislation provides authority for FAA to undertake certain activities on behalf of the general public. This is national policy which sets forth the mission of FAA. In order to facilitate understanding of the FAA mission, it has been partitioned into a number of performance areas supporting the 3 mission-based goals in the agency's strategic plan. This partitioning facilitates performance area analyses, which examine current capabilities, evaluate future needs, and identify shortfalls in that performance area.

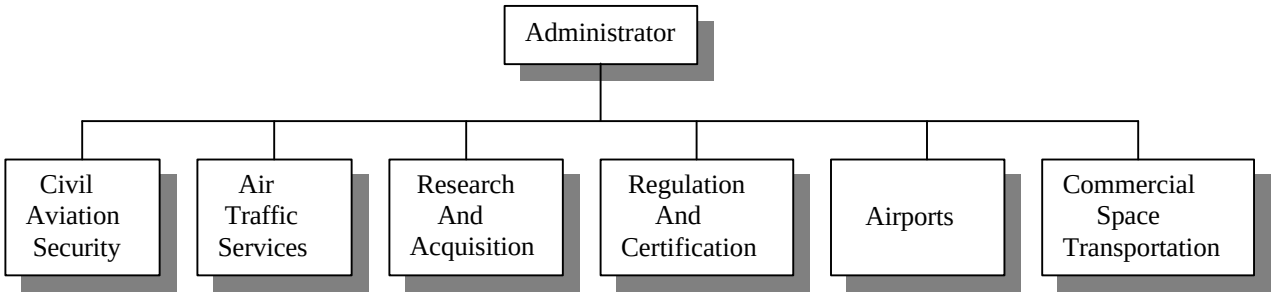
Three performance areas have been identified. The performance areas relate directly to the FAA mission as mandated by Congress and FAA's 3 mission-based strategic goals. These three performance areas are summarized as follows:

Safety	Security	System Efficiency
The FAA activities that minimize the chance of injury due to accidents/incidents within the civil aviation and commercial space transportation system.	The FAA activities that minimize the chance of injury or death of people or damage or loss of property due to criminal or terrorist acts that may be directed to the civil aviation system.	The FAA activities that increase and maintain the ability of the civil aviation system to govern the flow of traffic. Activities in this area provide an efficient aerospace system, maximizing system users' flexibility of operations, predictability of operations, and access to system services, while minimizing delay in receiving those services. This area also covers FAA activities that minimize the costs to users of the National Airspace System of actions undertaken or proposed by the FAA. We are speaking of actions that foster an environment in which both aviation and commercial space transportation can meet the needs of their customers and users, and those that assume fair and full access for U.S. aerospace to worldwide markets as part of a safe and efficient world aerospace system.

LINE OF BUSINESS PERFORMANCE PLANS

Within FAA, there are six lines of business as follows: Air Traffic Services, Research and Acquisitions, Regulation and Certification, Airports, Civil Aviation Security, and Commercial Space Transportation.

Lines of Business



Each FAA line of business has developed a performance plan which reflects the organizational responses to the strategic objectives that support FAA's strategic goals. These plans are intended to describe the work and work-related activities that each major organizational unit within the FAA is planning to undertake during the next several years. Strategic priorities may change due to changes in national policy, customer input, advances in technology, or budget factors. Because of this, lines of business performance plans will be adjusted accordingly on an annual basis.

CHAPTER 3

PERFORMANCE GOALS AND INDICATORS

This section presents the performance goals that will be used in tracking performance results of Operations (OPS), F&E, AIP, and R,E&D activities. Most FAA AIP, R,E&D, and F&E projects are multi-year, whose contribution to achievement of a performance goal will not be realized until the systems are placed into operation in support of FAA service delivery. Consequently, not all program activities identified in the fiscal year 2000 budget will have measurable outcomes in that particular year. Also, FAA continually assesses the goals and indicators to measure more accurately accomplishment of its mission. It should be noted that the FAA performance goals contribute to goals identified in the DOT FY 2000 Annual Performance Plan. In fact, in some instances, an FAA goal can be the DOT goal.

Following, by performance area, are the performance goals/measures that will be used to gauge success. The indicators are those data items that will be used in calculating the outcome measures. Note that, in some instances, target levels of performance and/or baseline information is not identified. We see this plan as the beginning of our journey, and additional information will be added as it becomes available. In the case of security, certain information will continue to be expressed as "X" in public documents even after target levels are set. Sensitive security information is protected, at a minimum, by 14 C.F.R. Part 191. The actual target levels will be released to appropriate parties under separate cover in keeping with the provisions outlined in GPRA.

Safety

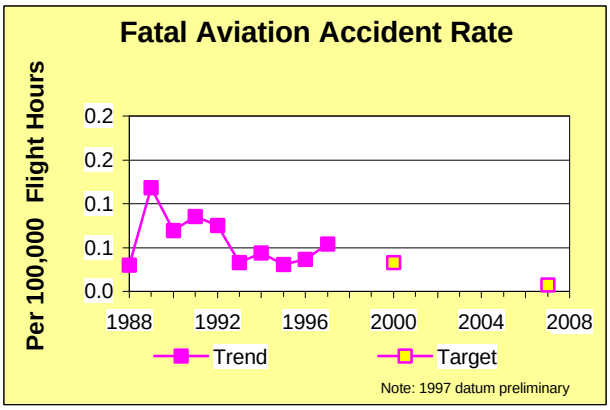
Security

System Efficiency

Safety - Air Carrier Fatal Accident Rate

Why we act: Commercial aviation is one of the safest forms of transportation. But when passengers board an airplane, they give up personal control and face an unfamiliar risk. While fairly rare, aviation accidents can have catastrophic consequences, with large loss of life. Despite the good safety record for air carriers, the public demands a high standard of safety, and expects continued improvement.

FAA's goal: Reduce the fatal aviation accident rate for commercial air carriers from a 1994-1996 baseline of 0.037 fatal accidents per 100,000 flight hours. The 2000 target is 0.033 per 100,000 – with the reduction to be achieved in 6 key areas outlined in the Safer Skies Agenda.



Special Challenges: The fatal accident rate is very low, as most of the major causes of accidents have been identified, and FAA has either issued regulations or provided system improvements to reduce the accident risk.

Strategies: DOT will continue to work with the aviation community and other governmental agencies to identify root causes of accidents, and intervene accordingly to prevent potential causes of future accidents. FAA's "Safer Skies" effort in the commercial aviation area includes the following six causal factors: controlled flight into terrain, loss of control, uncontained engine failure, runway incursion, approach and landing, and weather. The areas of data analysis and human factors, as well as issues associated with cabin safety, are part of all these categories.

Other Federal Programs with Common Outcomes: FAA and NASA are both committed to a goal established by the White House Commission on Aviation Safety and Security: an 80% decrease in the aviation fatal accident rate by 2007.

Activities and Initiatives in FY 2000 (including estimated obligations):

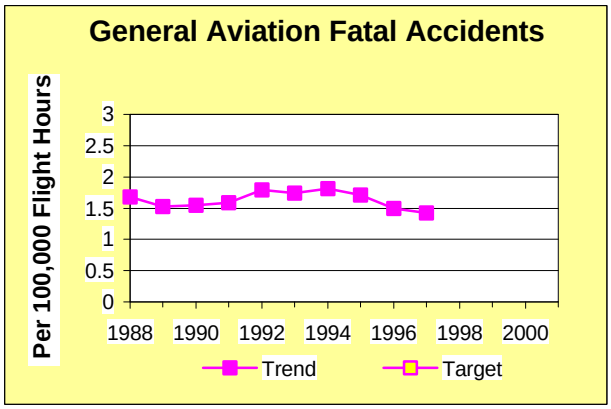
- FAA's "Safer Skies" effort with the aviation industry in FY 2000 will feature completion of causal analysis for the areas of loss of control and weather accidents. In addition, safety interventions identified in 1999 will be initiated for controlled flight into terrain, runway incursion, uncontained engine failure, and approach and landing. ($3.3 million) FAA targets a 15 percent reduction in fatal accidents in the six areas of the "Safer Skies" initiative, which will be the key factor in reducing overall fatal accident rate.
- FAA's regulation and certification program establishes aviation safety standards, monitors safety performance, conducts aviation safety education and research, issues and maintains aviation certificates and licenses, and manages rulemaking. ($668 million)
- With weather a factor in 40% of aviation accidents and 50% of aviation fatalities, FAA is investing in an Integrated Terminal Weather System (ITWS) and the Weather And Radar Processor (WARP). These systems will give controllers instant access to current weather data. ($36.7 million)
- FAA's aviation medicine research program is working to determine the impact of fatigue, developing fatigue counter-measures, and developing improved cabin evacuation standards. ($5 million)
- FAA's research in safety technology supports the regulatory program which sets safety standards for aircraft design and maintenance. Areas studied include fire resistant materials for cabin interiors, fire detection equipment, inspection and maintenance of aging aircraft, and prevention of engine failures. ($39.6 million.)

Measure:	Number of fatal accidents per 100,000 flight hours.
Scope:	This measure includes both scheduled and nonscheduled flights of large U.S. air carriers (FAR Part 121) and scheduled flights of commuter airlines (FAR Part 135). It excludes on-demand (i.e., air taxi) service and general aviation.
Source:	Part 121 and Part 135 flight hour data is submitted to BTS under FAR Parts 241 and 298, respectively. Accident data is provided by NTSB.
Baseline:	The average of all FAR Parts 121 and 135 fatal accidents for the three years from 1994 through 1996.
Limitations:	The fatal accident rate in these categories is small and could significantly fluctuate from year to year by the occurrence or non-occurrence of a single accident. Use of an average over a number of years smoothes the fluctuation.
Verification & Validation	The FAA does comparison checking of the flight hours reported to BTS with hours reported on the Air Carrier Utilization Reports. NTSB and FAA's Office of Accident Investigation meet regularly to validate the accident count.
Comment:	This goal assumes a 15 % reduction in fatal accidents in the five areas covered by Safer Skies – A Focused Agenda. These areas are: controlled flight into terrain, loss of control, uncontained engine failure, approach and landing, and weather. The sixth area in Safer Skies, runway incursions, is the subject of a separate performance goal.

GENERAL AVIATION FATAL ACCIDENT RATE

Why We Act: Aviation accidents overall have caused about 1,000 deaths a year in recent years, with the majority of these in General Aviation (GA). These public, private and corporate aircraft provide a wide range of services – like cropdusting, firefighting, law enforcement, news coverage, sightseeing, industrial work, and corporate transportation – in addition to personal and recreational flying. GA is an important element of the U.S. transportation system, and the U.S. economy. Between 1982 and 1997, the general aviation fatal accident rate declined 29%. But there is still a substantial risk in this area.

FAA's goal: Reduce the general aviation fatal accident rate from a 1994-96 average of 1.67 per 100,000 flight hours. (Specific target to be developed by June 1999).



Special Challenges: General aviation comprises a diverse set of aviation activities, ranging from student training to balloon rides and operation of sophisticated, multi-engine business jets. Some elements of general aviation operate in hazardous environments such as agricultural application, external load carriage, fire fighting and power line patrol. The level of risk is inherently higher for these elements.

Strategies: General aviation is one of the three primary focus areas of the Safer Skies Initiative, announced by the Administrator in 1998. Some key identified causal factors that are areas of attention for improvements are:

- Aeronautical decision-making – when a pilot does not make the best safety decision about a flying or non-flying situation.
- Loss of control – situations in which a pilot should have maintained or regained control but did not, often the result of a pilot's attention diverted between flying the aircraft and other applications, such as banner towing or law enforcement.
- Weather – most often involving Visual Flight Rules flight into Instrument Meteorological Conditions.
- Controlled Flight into Terrain – when an aircraft under the control of the pilot is flown into terrain, water or obstacles with inadequate pilot awareness of the impending disaster.
- Survivability – to increase occupant survivability in the event of an accident.
- Runway incursions – occurrences at airports involving an aircraft, vehicle, person or object on the ground that creates a collision hazard or results in loss of separation with an aircraft.

Other Federal Programs with Common Outcomes: NASA, in partnership with DOT, is conducting research on general aviation safety programs, including basic data gathering on accident causes, stability of aircraft design, and fuel standards for small piston engine powered aircraft.

Activities and Initiatives in FY 2000 (including estimated obligations):

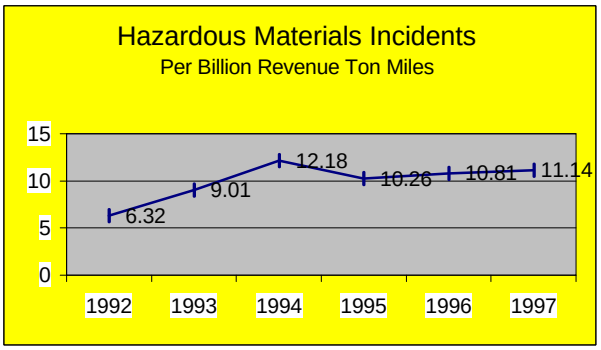
- FAA's Aviation Safety Inspectors conduct safety seminars, investigate accidents, and enforce safety regulations. They specialize in the following areas: operations, maintenance, and avionics.
- FAA's "Safer Skies" effort with the aviation industry will feature completion of causal analysis for loss of control, survivability, and aeronautical decision making.
- Intervention strategies in 1999 for prevention of controlled flight into terrain, weather-related accidents and runway incursion will be initiated in FY 2000. ($1.7 million)

Measure:	Number of fatal accidents per 100,000 hours flown
Scope:	The goal includes on-demand and general aviation. General aviation comprises a diverse range of aviation activities. The range of general aviation aircraft include single-seat homebuilt aircraft, rotorcraft, balloons, single and multiple engine land and sea airplanes including highly sophisticated extended range turbojets.
Source:	General aviation flight hours are projected based on responses to a voluntary annual general aviation and air taxi survey. This survey is conducted by the FAA's Office of Policy and Plans. NTSB provides the accident data.
Baseline:	Under development by FAA and the General Aviation Community.
Limitations:	Since general aviation flight hours are based on volunteered information, the accuracy is less than that for commercial air carriers; however, the biases in the data should be reasonably consistent from year to year. The lag time for data is several months. For example, the general aviation and air taxi survey data for 1996 were not published until Fiscal Year 1998.
Verification & Validation	NTSB and FAA's Office of Accident Investigation meet regularly to validate the accident count. There is no reliable way to verify or validate general aviation flight hours since the annual survey is the only source of information. A comparison with prior years' data is the only comparison possible.
Comment:	Specific baseline and reduction targets are being developed cooperatively with the general aviation community. The expected completion date is June 1999.

DANGEROUS GOODS

Why We Act: A disastrous loss of life, health, or property can result from the poor packaging, mishandling, or failure to declare dangerous goods shipped on an airplane. This was tragically demonstrated in May 1996 when a hazardous materials fire in its cargo hold destroyed ValuJet Flight 592, killing all 110 people aboard.

FAA's goal: Decrease the rate of air shipment hazardous materials incidents by the year 2000 from a 1998 base.



Special Challenges: The air shipment of dangerous goods is growing every year. A lack of education and awareness and the potential for avoiding extra expense for properly preparing shipments and paying surcharges are some typical reasons someone may unintentionally or purposely violate hazardous materials regulations. Less than 3 percent of the civil penalties for hazardous materials violations are issued to the air carriers that fly dangerous goods. Most civil penalties are issued to the parties who offer dangerous goods to air carriers for shipment, and usually result from undeclared dangerous goods shipments that leak or spill at an airport.

Strategies: To direct a solution to the source of the problem, FAA will continue its effort of inspecting more shippers of dangerous goods. Since there are an estimated 75,000 shippers who transport goods on U.S. air carriers, it is not feasible to inspect them all. FAA primarily inspects air carriers, freight forwarders, and air carrier repair stations. During each routine inspection of the air carrier's shipping records, FAA selects one or more shippers for inspection. FAA also inspects shippers identified through incident reporting. The FAA uses trend analysis of dangerous goods flow to target outreach and education, and conduct focused inspections known as "hazstrikes"

Other Federal Programs with Common Outcomes: The Department of Transportation's Research and Special Programs Administration is responsible for developing and issuing hazardous materials regulations and coordination among all modes of transportation.

Activities and Initiatives in FY 2000 (including estimated obligations):

- FAA combines dangerous goods with its cargo security program for maximum efficiency of special agent resources. Sixteen new civil aviation security positions will be dedicated to the dangerous goods and cargo security program. ($900K)

- FAA will increase the number of dangerous goods assessments approximately 20 percent from the FY 1999 level.

Measure:	Rate of hazardous materials incidents per billion revenue ton miles.
Scope:	All incidents reported by air carriers to RSPA on Form 5800.1, regardless of severity.
Source:	RSPA for number of incidents; BTS Air Carrier Traffic Statistics for revenue ton miles.
Baseline:	Changes in reporting and procedures will cause changes in how the results will appear in 1998 and before that time insufficient data were available for use as baseline data when setting a target level. The target will be determined when 1998 data become available.
Limitations:	Changes in reporting requirements may make it appear there is a change in the incident rate.
Verification & Validation	Field agents' investigations will verify reported incidents.
Comment:	Funding from the Omnibus Appropriations Bill of 1997 enabled an increase in inspection and awareness programs as more field agents were hired and trained, which may result in spikes in the trend data.

AIRPORT ACCIDENTS/INCIDENTS

Why We Act: Many of the accidents on airports involve aircraft undershooting or overshooting the runway. Additionally, an aircraft may have to abort a takeoff and then be unable to stop on the pavement. In some situations, aircraft may also veer off a runway due to any number of other reasons. The flying public deserves safety protection to avoid injury when these types of accidents occur.

FAA's goal: By 2007, reduce (by X percent from baseline levels) the rate of airport accidents/incidents (i.e., accidents/incidents in which an aircraft leaves the pavement or in which Aircraft Rescue and Fire Fighting responds) that result in injury to persons or damage to aircraft. (Note: This is a new measure—data/baseline to be developed over the next year).

Special Challenges: While the accident rate for these types of accidents is very low, FAA has continuously pushed for improvements in an airport's safety area (the area surrounding the runway). While there are airports that have runway safety areas that do not meet the FAA standards, FAA is now focusing on how to bring the safety areas to these standards. However, FAA recognizes that there are factors that may make it impossible to extend the runway safety area at some airports, ranging from topographical problems to environmental problems to exorbitant costs.

Strategies: FAA will continue to work with airport owners to improve runway safety areas so they are sized appropriately for each airport. The adequacy of a safety area will be reviewed by the airport owner and the FAA whenever the FAA, under the Airport Improvement Program, awards a grant to an airport owner for construction, reconstruction, or significant expansion of a runway.

Other Federal Programs with Common Outcomes: None

Activities and Initiatives in FY 2000 (including estimated obligations):

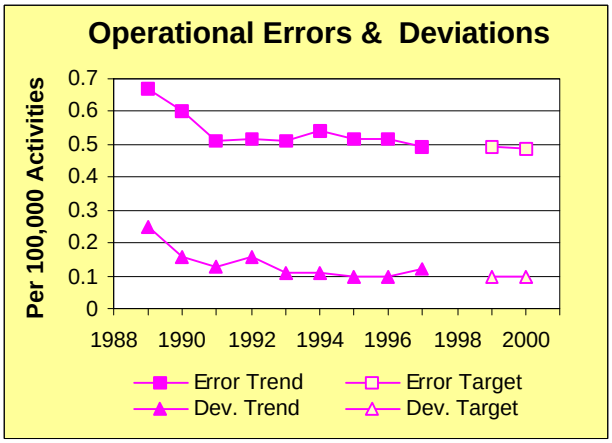
- FAA will require an airport owner, as a condition of receiving a grant for construction, reconstruction or significant expansion of a runway, to review the existing safety areas. If the safety areas do not meet FAA standards, the grant request will include the expansion of the safety area, to the extent practical.
- For airports where an expansion of runway safety areas is impossible due to topographical problems or other factors, the FAA will continue to look at alternatives, such as the Engineered Materials Arresting Systems for aircraft overruns.
- FAA airport certification safety inspectors will continue to inspect safety areas to ensure that they meet the regulatory requirements of being drained, having no ruts, humps or depressions, being capable of supporting aircraft rescue and firefighting equipment, and supporting the occasional passage of aircraft without causing major damage to the aircraft.

Measure:	Number of accidents in which air carrier aircraft leave the pavement and results in injury to persons or damage to aircraft due to inadequate safety areas.
Scope:	The measure includes scheduled and nonscheduled flights of commercial air carrier aircraft with more than 30 passenger seats. It excludes air carrier aircraft with 30 or fewer seats, air taxis and on-demand service, and general aviation.
Source:	Accident data is provided by the NTSB.
Baseline:	The goal is set from a baseline of 1998.
Limitations:	The number of accidents of air carrier aircraft with more than 30 passenger seats on an airport is very small and, therefore, subject to significant fluctuation year to year.
Verification & Validation	Office of Airport Safety Standards.
Comment:	None.

OPERATIONAL ERRORS AND DEVIATIONS (AIR TRAFFIC)

Why We Act: One of the fundamental principles of aviation safety is "separation" – the need to maintain a safe distance from other aircraft, terrain, obstructions, and certain airspace not designated for routine air travel. Air traffic controllers employ separation rules and procedures that define separation standards for many different environments where aircraft operate. Pilots flying under visual flight rules operate under a "see and avoid" policy. Pilots using instrument procedures rely on air traffic controllers' instructions to guide them. When aircraft are allowed to violate these separation standards, an operational error occurs. When aircraft are allowed to penetrate airspace that has not been pre-coordinated for that aircraft's use, an operational deviation occurs.

FAA's goal: Reduce the rate of operational errors and deviations by 10% from 1994 baselines. The 2000 targets are 0.486 errors and 0.097 deviations per 100,000 activities.



Special Challenges: Operational errors and deviations are a result of human error. Studies have shown that five factors are significant: traffic management relationships, quality assurance programs, training, management involvement, and control room environment.

Strategies: One of the major approaches to reducing operational errors and deviations is to provide a common level of understanding of procedures and policies among controllers and users. Training for controllers and pilots is central to this and will continue to be the focus of Air Traffic service safety strategy. Technological improvements such as deployment of modern displays, new software automation and decision tools, and improved communication systems will support better determination of aircraft location and resolution of potential conflicts between aircraft.

Other Federal Programs with Common Outcomes: NASA is researching software automation tools.

Activities and Initiatives in FY 2000 (including estimated obligations):

- FAA provides regular training for controllers to maintain their skills in dealing with complex air traffic situations. Each operational facility has computer work stations and taped air traffic scenarios to train qualified controllers.
- FAA will conduct special evaluations in 2000 and provide observations to regional quality assurance staffs to assist in developing measures to prevent operational errors and deviations.
- FAA is developing and improving several automation tools to assist controllers in maintaining safe separation in high density air space. The Air Traffic Management Program is simultaneously replacing hardware and developing tools such as Final Approach Spacing Tool and Center/TRACON Automation Tool. ($101.8 million)
- Human Factors research will examine the factors that affect controller performance and methods to improve performance. ($11.2 million)

Measure:	Operational errors and deviations per 100,000 facility activities.
Scope:	An error occurs when separation between aircraft is less then the separation determined necessary for the specific phase of flight. An operational deviation occurs when an aircraft enters airspace without prior coordination. "Activities" are total facility activities, as defined in Aviation System Indicators 1997 Annual Report. Total facility activities are the sum of en route and terminal facility activities.
Source:	FAA air traffic facilities have software that detects operational errors and report them to facility management. Operational deviations are reported by controllers. The information is summarized in the FAA Air Traffic Operational Error and Deviation Database.
Baseline:	Baseline data is from 1994.
Limitations:	There is a few months lag in reporting data because of the need to investigate significant incidents. All errors and deviations are reported and weighted the same.
Verification & Validation	FAA performs system checks and counts daily against reported data.
Comment:	Automated reporting system is being developed.

COMMERCIAL SPACE TRANSPORTATION

Why We Act: Current legislation directs FAA to regulate commercial space launches and sites in order to protect public health and safety. The number of licensed commercial launches has increased from two in FY 1989 to 22 in FY 1998. Commercial space transportation is now the fastest growing mode of transportation. Also, it is poised for exponential growth in the next century. Legislation enacted early in fiscal year 1999 provides explicit authority for FAA to regulate reentry operations and directs the agency to issue an implementing notice of proposed rulemaking (NPRM) within 180 days.

FAA's goal: Experience no fatalities and injuries to the public and significant damage to property caused by U.S. commercial space transportation.

Special Challenges: FAA is developing a reentry NPRM and associated guidance. We expect to issue the NPRM by the end of April 1999.
Also, the Air Force is reducing the scope and depth of its space launch activities. Both the Air Force and NASA plan to increase their reliance on the U.S. commercial space transportation industry and on FAA's regulation of launch and site safety.

Strategies: In order to continue to experience neither fatalities nor injuries to the public as well as no significant property damage caused by U.S. commercial space transportation, FAA will update its regulations to reflect the needs of a rapidly evolving industry and will train its launch inspector staff.

Other Federal Programs with Common Outcomes: None, although DOD and NASA seek to protect public health and safety and safety of property in conducting their launches and operating their launch sites.

Activities and Initiatives in FY 2000 (including estimated obligations):

- FAA provides training for launch inspectors.
- FAA will continue to issue updated regulations and associated guidance for U.S. commercial space launch providers and to commercial and state-sponsored launch site operators.
- FAA will obligate $500K to conduct initial safety assessments of reusable launch vehicles and safety inspections of Federal and non-Federal launch sites.

Measure:	Numbers of fatalities and injuries to the public. Amount of damage to property.
Scope:	The world continues to experience neither fatalities nor injuries to the public as well as no significant damage to property caused by U.S. commercial space transportation. This exemplary safety record continues despite increases in the number and complexity of launches and sites.
Source:	FAA launch inspectors, U.S. commercial launch providers and site operators, space trade press.
Baseline:	Baseline data are from 1989, the year of the first commercial space launch licensed under the Commercial Space Launch Act of 1984, as amended.
Limitations:	None.
Verification & Validation	FAA checks launch data with launch providers and site operators.
Comment:	None.

SYSTEMS ACQUISITION AND INTEGRATION (HUMAN FACTORS)

Why We Act: The modernization of the National Airspace System (NAS) involves new technology, policies, training, and procedures that create new computer-human interfaces. Appropriate human performance issues must be identified and addressed early in the acquisition process to ensure the safe and efficient operation of controllers and pilots in the modernized NAS environment.

FAA's goal: Ensure that human factors issues are addressed in the acquisition and integration of 100 percent of new and modified FAA aviation systems, including Free Flight Phase I.

Trend/Baseline Data: See Baseline section on next page.

Special Challenges: The FAA requires that the planning, analysis, development, and implementation for all programs include human factors engineering to ensure performance requirements are consistent with human capabilities and limitations. Programs will integrate human factors engineering into the development of specifications and into other acquisition activities to ensure that human factors issues are resolved well in advance of system deployment.

Strategies: Four strategies have been established to achieve the goal:

1) Policy: Institutionalize HF policies that will contribute to ensuring HF issues are addressed in the acquisition and integration of 100% of FAA aviation systems and applications.

2) Processes: Institutionalize HF processes that will contribute to ensuring human factors issues are addressed in the acquisition and integration of 100% of FAA aviation systems and applications.

3) Human Factors Conventions, Guidelines, and Tools: Develop, implement, and support HF conventions, guidelines, and tools which contribute to ensuring human factors issues are addressed in the acquisition and integration of 100% of FAA aviation systems and applications.

4) Assessments: Conduct human factors assessments for the acquisition and integration of 100% of FAA aviation systems and applications.

Other Federal Programs with Common Outcomes: The National Plan for Aviation Human Factors outlines the broad concepts and coordination necessary to conduct an effective human factors research and application program in conjunction with NASA and DOD programs.

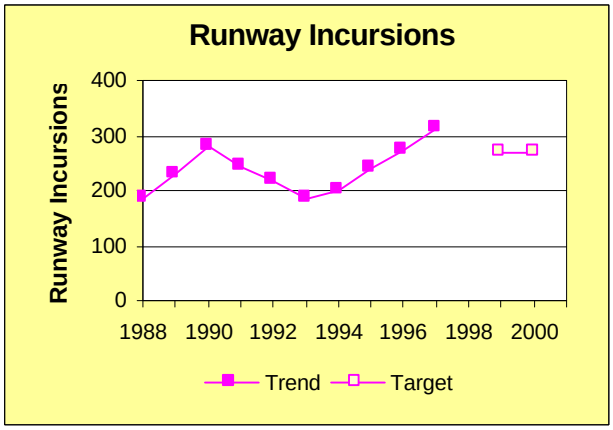
Activities and Initiatives in FY 2000 (including estimated obligations): Activities planned for FY00 relate to follow-on work in the four strategies: 1) addressing changes to acquisition management policy and guidance; 2) placing human factors specialists with key programs/IPTs and developing the management support to them; 3) reviewing and acquiring human factors tools and techniques, and training product teams, as appropriate; and 4) conducting human factors assessments to align human factors research with application program needs.

Measure:	Percent of annually targeted acquisition programs in which human factors is adequately addressed.
Scope:	Achievement of the goal entails attributes related to: a) the quality of the products and services rendered, b) the number of programs addressed (long-term goal is 100%), and c) the acquisition phases during which systems are affected (goal is all phases)
Source:	Data are acquired during human factors assessments and through the conduct of other structured human factors activities as described in the FAA Acquisition System Toolset
Baseline:	This approach to the goal constitutes activities for which a baseline is to be developed during the third or fourth quarter of FY99
Limitations:	The STARS Process Group Report (dated December 8, 1997) identified 44 organizational barriers that contribute to achieving goals related to human factors in acquisitions. These barriers were grouped into categories (i.e., Requirements Analysis, Acquisition, Communications, Decision Making, Roles and Responsibilities, Organizational Culture, Training and Education, External Factors)
Verification & Validation	Data are analyzed and checked by the Office of the Chief Scientific and Technical Advisor for Human Factors
Comment:	

RUNWAY INCURSIONS

Why We Act: Runway incursions create dangerous situations that can lead to serious accidents. A runway incursion occurs when an aircraft, ground vehicle or person enters or crosses a runway that is in active use for takeoffs or landings, without adequate separation from aircraft cleared to use the runway. Reducing the number of runway incursions will lessen the probability of accidents that potentially involve fatalities, injuries and significant property damage.

FAA's goal: Reduce the number of runway incursions to a level 15% below a 1997 baseline of 318 incursions. The FY 2000 target is at or below 270 incursions.



Special Challenges: Growth in aviation operations has averaged over 1% per year. With an increased tempo of operations, the risk of incursions increases. Runway incursions are most likely to occur at complex, high volume airports. These airports are characterized by multiple parallel or intersecting runways; multiple taxiway/runway intersections; complex traffic patterns; and the need for traffic to cross active runways.

Strategies: DOT aims to reduce incursions by providing technologies that use multiple sensors including ground radars and automatic position reporting systems to detect the location of aircraft and vehicles, airport surface navigation aids, and enhanced software for detecting conflicts between aircraft on the runway and approaching aircraft, and signals at key points to warn pilots and ground equipment operators not to cross active runways.

Other Federal Programs with Common Outcomes: DoD has developed software used for detection of aircraft and other vehicular movement based on radar images to reduce runway incursions at military airports.

Activities and Initiatives in FY 2000 (including estimated obligations):

- FAA's approximately 3,000 controllers assigned to the tower cab at airports have a major role in preventing runway incursions. They provide specific instructions to pilots and ground crew on when aircraft and vehicles can be moved or must stop and wait for other aircraft and vehicles to clear the runway or taxiway.
- FAA is currently doing research to develop detection devices that warn controllers of potential incursions and warning devices for both pilots and controllers to prevent incursions ($3.1 million). The results of this research are shared with FRA, which is doing related research on sensors to detect movement of rail cars.
- FAA will upgrade Airport Surface Detection Systems and provide support for the software upgrades at the 40 airports with surface detection systems. ($14.1 million).
- FAA will begin deploying the Surface Management Advisor – a computer display that makes it easier for controllers, airlines and airport operators to share information on aircraft taxiing and better manage airport ground traffic. ($6 million)

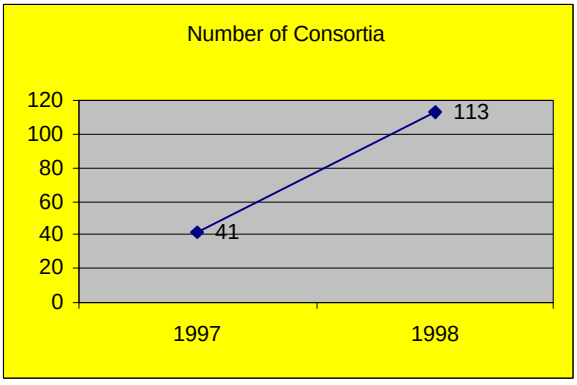
Measure:	Number of runway incursions.
Scope:	Incursions occur as a result of surface operational errors, surface pilot deviations, or vehicle/pedestrian deviations (VPDs). Incursions are reported for airports which have an air traffic control tower.
Source:	The air traffic controllers report the incursion, and the data are summarized in the FAA National Airspace Incident Monitoring System (NAIMS)
Baseline:	Actual data are available from 1991 and following years.
Limitations:	There is some delay in finalizing investigation reports because incursions need to be validated by a review board. Validation can lead to slight changes between preliminary and final numbers.
Verification & Validation	Determination of whether or not a runway incursion has occurred is made by a review board conducted monthly. The board is comprised of staff from Air Traffic Services, Flight Standards, Airports, Aviation Safety, and the Runway Safety Program Office.
Comment:	

AVIATION SECURITY

Why We Act: Protecting the users of commercial air transportation against terrorist and other criminal acts is a national security concern. The U.S. and its citizens are often the cited targets for terrorists groups seeking to challenge power or to influence international relations. Because terrorists seek to destroy public confidence in the safety of air travel and disrupt this vital segment of the U.S. and world economies, the continued growth of commercial air transportation depends on the effectiveness of aviation security.

FAA's goal: Increase the detection of explosive devices and weapons that may be brought aboard aircraft. 1) X percent improvement from a 1998 base by FY 2000 in detection of improvised explosive devices and weapons in carry-on baggage with no significant increase in operational impact. 2) X percent improvement from a 1998 base by FY 2000 in detection of improvised explosive devices and weapons carried on the person with no significant increase in operational impact. 3) Increase the percentage of selected passengers' checked bags screened with explosives detection systems from a 1998 base by FY 2000 while achieving X percent detection of improvised explosive devices. 4) Improve cargo security by an X increase from a 1997 base in the detection of improvised explosive devices in small packages accepted from unknown shippers by air carriers for air transportation. 5) Convene consortia at 134 airports, and provide tools and assistance to airports that voluntarily maintain consortia.

Detection rates are sensitive information protected under CFR 14 Part 191. The baseline and targeted increases will be made available to appropriate parties upon request.



Special Challenges: Technology and human vigilance must keep pace with the increasing sophistication of bombs and other devices terrorists use to attack a flight. Still, the speed of processing passengers and baggage through screening checkpoints and other security measures must improve to accommodate the rapid growth in passenger traffic. These challenges must be met while protecting civil liberties.

The many parties involved in aviation security at each airport, including FAA, FBI and other Federal agencies, airline representatives, local law enforcement and airport management, have different motivations and concerns. The White House Commission on Aviation Safety and Security recommended FAA strengthen partnerships in aviation security by forming consortia and conducting vulnerability assessments at airports across the country. Since these consortia are strictly voluntary, FAA is limited to inviting and encouraging an airport to form a consortium, and providing the tools it needs to succeed.

Strategies: FAA has a large research program to develop better and faster security technology and procedures to prevent weapons and explosive devices from being taken aboard aircraft. FAA, working with airlines and airports, will continue to purchase and deploy advanced aviation security equipment, will monitor its use, and will test and assess the performance of security programs. The planned certification of screening companies is expected to launch higher levels of screener professionalism. FAA will continue to improve cargo security through controls on shipments, increasing the proportion of known shippers, use of available advanced technology, and strengthening and refining cargo security programs by including minimum performance standards. FAA will extend invitations to form consortia, and will brief parties on the advantages of maintaining consortia. A new performance-based approach to enforcement of compliance with security requirements will

encourage a sense of partnership and joint responsibility for improving aviation security.

Other Federal Programs with Common Outcomes: Aviation security is part of the National Security Strategy developed by the National Security Council. FAA is a Core Agency Group member and participant in key working groups for the Federal Inter-Agency Counterterrorism and Technology Plan. FAA is sponsoring a pilot project with the Bureau of Alcohol, Tobacco, and Firearms that may improve the use of canines for explosives detection. FAA is working with the U.S. Customs Service and the U.S. Postal Service to improve procedures and the use of technology to prevent dangerous items from coming aboard aircraft in cargo or mail.

Activities and Initiatives in FY 2000 (including estimated obligations:

- FAA will continue to develop aviation security countermeasures; assist U.S. air carriers (and foreign air carriers that service the United States), indirect air carriers, and airports; monitor their compliance with security requirements; and test and assess aviation security system performance. ($144 million)

- FAA will purchase advanced security equipment, including explosives detection systems for checked baggage for use in airports across the Nation. ($98 million)

- FAA will continue research and development to improve human factors and technology for detecting explosive devices and weapons and to decrease the vulnerability of airports and aircraft to terrorist attacks. ($51 million)

- FAA will continue airport vulnerability assessments as recommended by the White House Commission for Aviation Safety and Security ($1.7 million).

- Initiatives in regulation include publication of the final rule requiring the certification of screening companies. The rule will require companies that perform aviation screening at airports to meet minimum performance standards for detecting simulated explosive devices and weapons, and will drive the overall system performance to higher levels. A final rule implementing "the identical aviation security measures" provision of the Antiterrorism and Effective Death Penalty Act of 1996 may be published in FY 2000; it would require foreign air carriers and U.S. air carriers flying to and from the United States to have the same security measures.

Measure: (1,2, and 3)	Detection rate of simulated improvised explosive devices and weapons. Percentage of selected passengers with checked bags screened by explosives detection systems (EDS).
Scope:	Automated threat-image projection (TIP) and FAA field agent testing of aviation security screener proficiency to detect and resolve images or FAA test objects that simulate weapons and explosive devices in checked and carry-on baggage, or carried on the person through an airport security checkpoint. Percentage of bags based on the number and location of EDS.
Source:	FAA Office of Civil Aviation Security Airport and Air Carriers Information Reporting System (AAIRS), equipment reported by the Security Equipment Integrated Product Team; Number of selected passengers estimated from passenger enplanments reported in the Official Airline Guide.
Baseline:	One year of available data. FAA began deployment of TIP, and more realistic, wide field testing in 1998.
Limitations:	Automated testing is for checked and carry-on baggage only. Field agents' testing at walk-through-metal-detectors is limited to weapons.
Verification & Validation	Special "red team" testing led by agents based at FAA headquarters is used to validate automated and field agents' test results.
Comment:	The White House Commission recommended more aggressive, realistic testing. Funding that began in 1997 enabled an increase in testing as more field agents were hired and trained. Prior to 1998, data from realistic testing were too sparse to be conclusive.
Measure: (4)	Detection rate of simulated improvised explosive devices in cargo.
Scope:	Results of FAA Special Agent testing of air carrier procedures in acceptance of small packages.
Source:	FAA Civil Aviation Security
Baseline:	3 years available data.
Limitations:	
Verification & Validation	Re-validation testing by FAA Special Agents
Comment:	Funding from the Omnibus Appropriations Bill in 1997 enabled an increase in inspection and awareness programs as more field agents were hired and trained.
Measure: (5)	Number of airport consortia formed.
Scope:	All of the Nation's passenger airports will be encouraged to form consortia.
Source:	FAA Office of Civil Aviation Security
Baseline:	One year of available data. FAA began convening consortia in 1997.
Limitations:	Consortia are voluntary, and need not be formed by an airport or reported to FAA.
Verification & Validation	Continuing reports from Federal Security Managers and FAA field offices.
Comment:	None.

ACCESS CONTROLS

Why We Act: Protecting aircraft is an important part of protecting the users of commercial air transportation against terrorist and other criminal acts. Access to a parked aircraft or other restricted areas of the airport must be controlled to close off a potential opportunity for terrorists to plant a bomb or otherwise sabotage an aircraft.

FAA's goal: Increase the aviation systems' ability to sustain compliance with security requirements by X percent by FY 2000 from a 1998 base year.

Detection rates are sensitive security information protected under C.F.R. 14 Part 191. The baseline and targeted increases will be made available to appropriate parties upon request.

Special Challenges: Good security requires clear identification of individuals who are authorized to be in a restricted area and ensuring that individuals without identification are stopped, questioned, and removed. Vigilance on the part of airport and air carriers is essential. Complacency or reluctance to confront unknown individuals will lead to noncompliance with FAA regulations that require proper identification and interdictions.

Strategies: A new performance-based approach to enforcement of compliance will encourage a sense of partnership and joint responsibility for improving aviation security. FAA will continue testing identification and interdiction procedures, requiring individuals who work at airports to be accountable for security. FAA will also emphasize security education and require airports and airlines to conduct self-audits of security practices.

Other Federal Programs with Common Outcomes: Aviation security is part of the National Security Strategy developed by the National Security Council. The Departments of Justice, Defense and State have security programs. FAA is a Core Agency Group member and participant in key working groups for the Federal Inter-Agency Counterterrorism and Technology Plan.

Activities and Initiatives in FY 2000 (including estimated obligations):

- FAA will continue to develop aviation security countermeasures; assist airports and U.S. air carriers and foreign air carriers who service the United States and monitor their compliance with security requirements; and test and assess aviation security system performance. ($144 million)

Measure:	Percent increase in compliance rates.
Scope:	An aggregate figure using selected factors from assessment results.
Source:	FAA Office of Civil Aviation Security Airport and Air Carriers Information Reporting System (AAIRS)
Baseline:	One year of available data.
Limitations:	Funding that began in 1997 enabled an increase in testing as more field agents were hired and trained. Prior to 1998, data from realistic testing were too sparse to be conclusive.
Verification & Validation	Special "red team" testing led by agents based at FAA headquarters may be used to validate automated and field agents' test results.
Comment:	The White House Commission recommended more aggressive, realistic testing.

FAA SECURITY

Why We Act: The national and global economies are dependent on an aviation system without interruptions. Protecting air traffic control and other components of the National Airspace System from terrorist or criminal acts is critical to safe and efficient commercial air transportation. The loss of expensive FAA facilities, and more importantly the lives and well-being of people who work there, would have a devastating impact.

FAA's goal: By 2000, increase by 67 percent from a 1998 base year the number of FAA facilities accredited as fully meeting security standards.

Trend Chart: Historical data not immediately available in appropriate format.

Special Challenges: An appropriate facility design and vigilant employees can help keep a facility secure. There are over 1,000 staffed FAA facilities and 8,000 nonstaffed FAA facilities and associated assets. Finite resources to protect this property and employees must be carefully applied to ensure all facilities receive a sufficient level of protection. The size, nationwide distribution, and complexity of this critical part of the Nation's infrastructure make this a difficult challenge.

Strategies: FAA will survey and assess facilities to determine the most appropriate security measures to apply for sufficient protection. Building construction, procedural changes, technology installations, and awareness programs may be some of these measures. Some measures may be very costly, while others may be a minimum expense. As each facility implements the appropriate measures, it will be accredited.

Other Federal Programs with Common Outcomes: All Federal government agencies are required by Presidential direction to protect their facilities to at least minimum standards issued by the Department of Justice.

Activities and Initiatives in FY 2000 (including estimated obligations):

- The FAA Civil Aviation Security operations budget of $144 million includes resources for FAA security. Twelve new positions will be dedicated to perform initial accreditation of FAA facilities and regular comprehensive assessments.

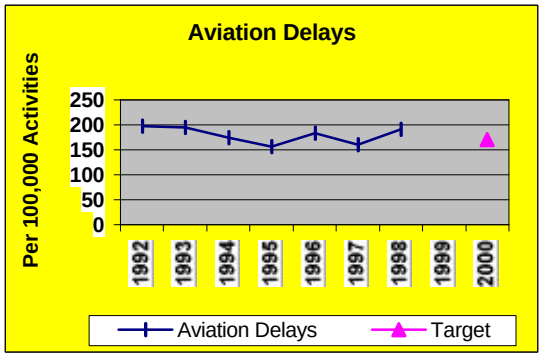
- FAA will continue its Facility Security Risk Management program to evaluate risk and implement the appropriate upgrades to protect employees and facilities. ($16.9 million)

Measure:	Percentage of FAA facilities accredited.
Scope:	All staffed FAA facilities.
Source:	FAA Civil Aviation Security Facility Information Reporting System.
Baseline:	Five years of data are being researched.
Limitations:	
Verification & Validation	Follow up inspections by FAA Special Agents
Comment:	

AVIATION DELAYS

Why We Act: Delays to commercial aviation are estimated to cost the airlines over $3 billion a year. Passengers are directly affected by the inconvenience of delays in terms of missed flight connections, missed business meetings and loss of their personal time. With demand for passenger travel increasing each year, FAA is monitoring the 20 airports with an estimated average annual delay of over 20,000 air carrier hours (i.e., with annual Consolidated Operations and Delay Analysis System delay > 4 minutes per operation in 1997), and delays throughout the system are projected to increase.

FAA's goal: Reduce the rate of air travel delays by 5.5% from a 1992-1996 baseline of 181 delays per 100,000 activities. The FY 2000 target is 171 per 100,000 activities.



Special Challenges: About 75% of delays are attributable to bad weather, which is a changing external variable. Capacity-related delays are most prevalent at large hub airports that have significant constraints on increasing runway capacity. Equipment failures, volume of air traffic, and runway closures are other significant causes of delays.

Strategies: In 2000 FAA will target a 20% reduction in volume- and equipment-related delays and a 1% reduction in weather delays (with all other factors assumed constant) which together should yield a 5.5% reduction in *overall* delays. With Free Flight Phase I, FAA is aiming to improve the spacing of traffic streams into major airports and maximize the use of available capacity. FAA is also developing improved weather reporting systems that allow operational facilities to minimize weather diversions and delays.

Other Federal Programs with Common Outcomes: NASA has developed enhanced software tools for air traffic control in partnership with FAA. Research on new weather systems is done in cooperation with the National Weather Service.

Activities and Initiatives in FY 2000 (including estimated obligations):

- FAA is implementing air traffic automation enhancements in Free Flight Phase I. Initial sites for new software tools such as the Final Approach Spacing Tool and Center/TRACON Automation System will be implemented at 9 airports beginning in 2000. ($184.8 million)
- Existing controller workstations are being upgraded to run enhanced software (Display System Replacement). New equipment will improve system reliability and allow the new software to be added to existing controller automation tools. ($208.1 million)
- FAA's Advanced Technology Development and Prototype programs will be improving modeling of airspace capacity, developing better algorithms and completing prototype development and evaluation of new equipment for collaborative decision making with users. ($7.9 million)
- FAA is developing two major systems to improve weather reporting, processing, and dissemination. The Integrated Terminal Weather System will consolidate information from several sources, which is provided to airport towers. The Weather and Radar Processor will report weather information and integrate weather radar data provided to the FAA centers. ($36.7 million)
- FAA is continuing to implement and improve existing weather sensors such as the NEXRAD weather radar, Terminal Doppler Weather Radar, Low Level Wind Shear Alert System, a wind shear detection channel for the terminal radar, and the Automated Surface Observing System. ($50.5 million)
- FAA's weather research program is demonstrating storm growth and delay forecasting technology. ($15.8 million)

Measure:	Air travel delays per 100,000 activities
Scope:	An air travel delay occurs when an aircraft is delayed fifteen minutes or more because of constraints that prevent the aircraft from making a scheduled landing. Delays are counted in five categories: equipment, volume, weather, runway related, and other. Delays due to airline equipment are not considered. Delays due to airline equipment are not considered. "Activities" are total facility activities, as defined in Aviation System Indicators 1997 Annual Report. Total facility activities are the sum of en route and terminal facility activities.
Source:	FAA air traffic facilities report the data to headquarters which incorporates the data into the Air Traffic Operations Management System
Baseline:	The baseline is the 5 year average for 1992-96. The target level for this goal is based on a 20% reduction in volume- and equipment-related delay and approximately a 1% reduction in weather related delay, with other factors assumed constant. Weather delays vary year to year, and significantly influence the variance in overall delays.
Limitations:	By collecting information on delays of fifteen minutes or more, FAA does not capture the aggregate amount of system delay, but only the most significant delays. Total delay could be a useful management tool for determining which airports are nearing serious levels of congestion. FAA is exploring ways to assess system performance in terms of predictability as well, as a complementary measure.
Verification & Validation	Data is analyzed and checked by an Air Traffic Service headquarters office.
Comment:	Total delays in all five categories are what the travelling public experience. The FAA has the greatest degree of control over volume and equipment related delays, where the target is a 20% reduction. FAA aims to influence some aspects of weather related delays, and has set a 1% reduction target for these.

SYSTEM CAPACITY

Why We Act: The demand for air transportation is expected to increase steadily in the future. This will place an additional load on the National Airspace System, some elements of which are already operating at or near their practical capacity. Experience shows that runway capacity in major cities is particularly critical, because financial and environmental concerns have constrained efforts to expand existing airports and develop new ones. Airports are owned and operated by local or state agencies that consider a broad spectrum of local environmental, social, and economic issues when making development decisions. After the local decision is made but before major development can be undertaken, the FAA usually must make a favorable environmental impact determination. Financial assistance from the FAA is often essential to ensure the financial viability of major projects.

FAA's goal: Increase system capacity attributable to runways at the 25 busiest airports by 1 percent annually in the year 2000 from the baseline year 1998.

Special Challenges: The FAA is charged with fostering the safe and efficient development of the National Airspace System, while avoiding or minimizing the adverse environmental impact of that development. The FAA is under intense scrutiny as it works to complete complex analyses of major projects in a timely manner.

Strategies: The FAA is conducting national system planning to determine when and where additional capacity will be needed, and is continuing to provide financial and technical support for local planning. Additional specialists are being assigned to FAA environmental reviews of airport improvements. Legislation has been proposed to enhance financial assistance for airport development under the AIP and to raise the ceiling on PFCs. The FAA reviews airport annual financial report and other sources to identify instances of revenue diversion and to restore those funds to the airport for use on airport development.

Other Federal Programs with Common Outcomes: There are no other Federal programs with a similar influence over airport capacity expansion. However, the FAA's program to modernize the National Airspace System has a similar broad objective, to accommodate the rising demand for air transportation by increasing system capacity and efficiency. Airport and airspace modernization programs are closely related and are closely coordinated in order to maximize their effectiveness.

Activities and Initiatives in FY 2000 (including estimated obligations):

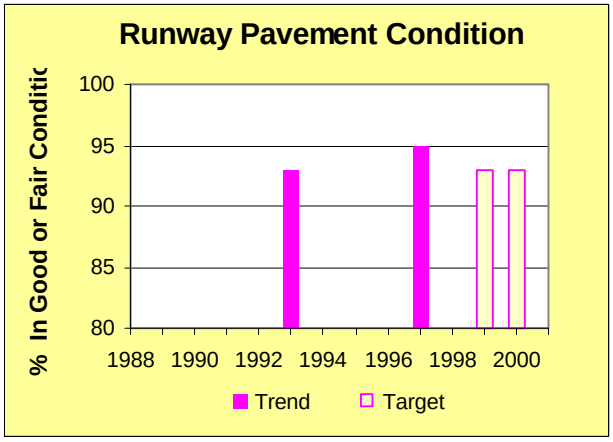
- FAA will conduct computer simulations to determine the capacity of major airfields and the increase expected due to proposed new runways and other major improvements.
- AIP grants will be issued to aid the development of major airfields.
- The FAA will ensure that all projects receiving capacity discretionary grants of $5 million or more are cost beneficial.
- Decisions will be made regarding PFC applications to help fund major airfield improvements.
- Increased staffing will be provided to process environmental reviews of major airfield improvements.
- FAA will review all annual airport financial reports to determine that airport revenue is used for airport development.

Measure:	
Scope:	The estimated capacity of the runway systems of the 25 busiest airports, expressed as the number of annual aircraft operations that can be accommodated without incurring an excessive delay.
Source:	A computer model will be used by the FAA William J. Hughes Technical Center to calculate the capacity of the individual airports.
Baseline:	The baseline will be the capacities computed for the runway configurations and conditions prevailing in 1999.
Limitations:	Only 14 airports will be simulated during 1999 and the capacity of the other airports will be estimated from tables, current planning documents, or other sources.
Verification & Validation	FAA has extensive experience and full confidence in the computer simulation techniques. The accuracy of results depends on the validity of input assumptions and data, which are coordinated with the airport operators, airlines, and consultants.
Comment:	The 14 airports to be modeled in 1999 were selected because their plans call for the construction of new runways within the next 10 years. Simulation will provide a precise estimate of the increase in capacity that is expected.

RUNWAY PAVEMENT CONDITION

Why We Act: Paved runways are essential for takeoffs and landings of large commercial and private airplanes. Deteriorated pavement can damage propellers, turbines and airplane landing gear. Proper design, construction, and maintenance can slow this deterioration, but runways still need complete rehabilitation every 15 to 20 years. This means that during a typical year, 5% to 7% of runways require rehabilitation. Federal airport funding helps achieve this necessary level of rehabilitation, and -- combined with proper maintenance -- helps keep runway condition at or above the level needed to ensure efficient airport operation.

FAA's goal: 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.



Special Challenges: Although runway rehabilitation is among the highest priorities of FAA's Airport Improvement Program (AIP), projects must be initiated by airport operators who pay a portion of the cost. The ready availability of grants for rehabilitation may detract from regular maintenance programs, which are usually funded entirely by the airport operator.

Strategies: Maintaining and rehabilitating runways costs less than total reconstruction of runways. Since FY 1995, AIP grant recipients have been required to show evidence of an airport maintenance management program, including pavement maintenance. An AIP demonstration program is underway to fund crack sealing at non-primary airports, and the FAA has proposed legislation to make this program permanent.

Other Federal Programs with Common Outcomes: None.

Activities and Initiatives in FY 2000 (including estimated obligations):

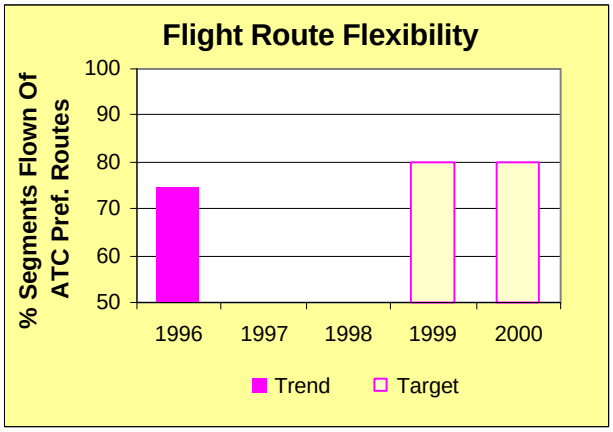
- FAA will continue to give requests for runway rehabilitation a high priority in 2000. FAA estimates that approximately 200 runways will be rehabilitated with AIP aid in 2000. FY 1999 and FY 2000 resources in this area will have the most immediate influence on runway pavement condition. ($150 - $200 million)
- FAA will conduct research to refine pavement design to accommodate new larger aircraft that will impose very heavy wheel loads on pavement ($2.0 million).
- In response to the General Accounting Office's July 1998 report "Airfield Pavement: Keeping Nation's Runways in Good Condition Could Require Substantially Higher Spending," the FAA will update guidance for inspecting and reporting the condition of runway pavement, and will ensure that inspectors are aware of the guidance.

Measure:	Percent of runway pavement in good or fair condition
Scope:	Paved runways at the 3,300+ airports in FAA's National Plan of Integrated Airport Systems (NPIAS) are assessed for pavement condition. The NPIAS airports include all commercial service and reliever airports and selected general aviation airports. FAA contracts for a visual survey of the runways to categorize their condition based on criteria developed by the FAA Office of Airports. "Good" condition means all cracks and joints are sealed; "fair" condition means there is mild surface cracking, unsealed joints, and slab edge spalling; and "poor" condition means there are large open cracks, surface and edge spalling, and vegetation growing through cracks and joints.
Source:	Under FAA's Airport Safety Data Program (ASDP), data are provided on all NPIAS airport runways each year under an FAA contract with the National Association of State Aviation Officials
Baseline:	FAA estimates that in 1997, 5 percent of NPIAS airport runways were "poor" and 23% "fair," with the remaining 72% "good."
Limitations:	Since the reports are based on a visual inspection, underlying drainage or strength problems are not reported. However, these problems normally create surface defects which are visible. The more detailed PCI inspections require a section by section examination of the runway rather than an overall assessment used for this performance measure.
Verification & Validation	There is no runway specific validation but we compare system results from year to year and have discussions with the States to confirm that the FAA's sense of the condition of the system is consistent with the States.

FLIGHT ROUTE FLEXIBILITY

Why We Act: Many of the most heavily traveled routes in the national airspace system have published air traffic control (ATC) preferred routes, which are based on flying from one navigational aid to another to ensure accuracy in navigation. These routes are designed to minimize conflicts in congested airspace, and they are an especially important tool in helping air traffic controllers organize traffic flow around major airports. However, these routes often differ significantly from the routes that pilots or flight planners would normally propose between two cities. They desire the capability to optimize their operations based on their own objectives and constraints, which vary flight-by-flight and user-by-user. By allowing aircraft to fly the most direct routes, or choose other indirect routes to avoid weather, there can be time and cost savings or smoother flights that avoid turbulence. Enhanced automation aids now being developed facilitate the use of more direct routes.

FAA's goal: Increase the number of flight segments that aircraft are able to fly off ATC-preferred routes to 80% from a 1996 baseline of 75%. The 2000 goal is 80%.



Special Challenges: There are significant savings for longer routes, but the shorter routes are not as likely to benefit because of the limitations while climbing from or descending to an airport. Growth in aviation increases the complexity of air traffic control and makes it more difficult to allow flights off the preferred routes.

Strategies: DOT is implementing the Free Flight Phase I program to allow greater use of direct routes. The enhanced software tools and the Conflict Probe software allow controllers to better project future flight paths and maintain separation for flights off the preferred routes.

Other Federal Programs with Common Outcomes: FAA has coordinated with DOD for several years to allow direct flights. The techniques used will assist FAA as wider scale use of direct flights is made by commercial airlines.

Activities and Initiatives in FY 2000 (including estimated obligations):

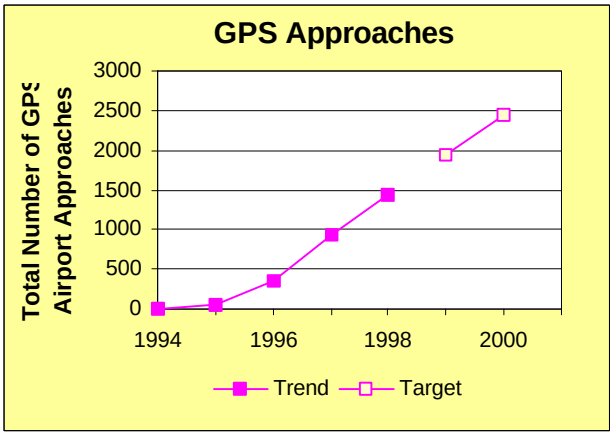
- FAA will continue working closely with airlines to share air traffic information so that collaborative decisions can be made. Airlines often have priority preferences among their own flights and can indicate to FAA which flights are most important. Software and hardware for collaborative decision making are being developed within the Free Flight Phase I Program. ($29.4 million)
- FAA is beginning implementation of Conflict Probe at 7 centers which allows controllers to project aircraft flight paths into the future and resolve future conflicts well in advance. This automation tool allows pilots to fly the most efficient routes because controllers only have to intervene when Conflict Probe shows the selected route will result in a potential conflict. ($83.2 million)
- FAA's Research, Engineering and Development program is continuing work on the software development necessary to support Conflict Probe. ($.5 million)

Measure:	Percentage of flight segments that aircraft are able to fly off ATC preferred routes
Scope:	Pilots are required to fly on ATC preferred routes unless they get specific authority to fly a direct or other route from air traffic control facilities. This authority has been dramatically expanded since 1990 and FAA permits as many as 75% of flights to select a route other than an ATC preferred route.
Source:	FAA Enhanced Traffic Management System.
Baseline:	In 1996, 75% of flights were allowed to fly off the ATC preferred routes.
Limitations:	The number of flight segments flown off preferred routes doesn't provide enough information to determine the economic value of this initiative. The measure also does not capture the benefits of reducing the flight miles on ATC preferred routes.
Verification & Validation	Data coming into Volpe National Transportation Systems Center from the centers, tracons, and remote sites, are being updated on a continuous basis (i.e. sometimes every 4 minutes). Since the data are updated on a realtime basis, it becomes difficult for Volpe to verify and validate all of the information, however, they do apply error checking routines against incoming data to identify really bad data.
Comment:	

GPS LANDING APPROACHES

Why We Act: For aircraft to land in restricted visibility, the airport must have a precision approach guidance system (currently ILS). Today, precision approach capability is available at approximately 933 runways. However, most public use airports (about 5300) do not currently have this capability. When the Wide Area Augmentation System (WAAS) becomes operational in 2000, the GPS satellite navigation signal can be corrected to sufficient accuracy to be used for precision approach guidance at those airports that do not qualify for current precision guidance systems.

FAA's goal: Increase access to the nation's airports during adverse weather conditions by publishing 500 GPS/WAAS approaches per year for the next 2 years, from a prior year (FY 1995 - 1998) baseline of 1,453 approaches. The FY 2000 target is to complete at least 2,453 approaches total.



Special Challenges: Developing the approaches requires accurate survey information for the airport runway location and information about any obstacles near the flight path for approach. To maximize the benefits to aviation users, FAA will need to use this information to develop approaches for all Instrument Flight Rules (IFR) airports in the National Airspace System (NAS) and eventually expand capability to include other qualifying airports. Users of this new capability will need to obtain and be versed in using WAAS receivers to make full use of this new precision approach technology.

Strategies: FAA is using automated tools to incorporate airport and obstruction data into the printed approach plates used by pilots. A large number of approaches is being developed each year to ensure that precision approach guidance can be used.

Other Federal Programs with Common Outcomes: The basic enabling technology for precision approaches is the GPS satellite navigation system developed and maintained by DOD. Map information will be obtained from NOAA. The Office of National Geodetic Survey will be conducting the airport surveys.

Activities and Initiatives in FY 2000 (including estimated obligations):

- FAA's WAAS program will manage the development of the approaches. Information is generated specific to the airport location, and an "approach plate" is published which gives the altitudes and path to the runway for the approach. ($19.4 million)
- The WAAS provides accuracy and integrity information that is necessary to fly precision approaches. Initial WAAS operational capability will be established in 2000 with two communication satellites providing position corrections. The WAAS will be fully operational in 2001, after phases 2 and 3 of development are completed and additional communication satellites are added. ($99.8 million)
- FAA is negotiating with the Department of Defense to add a second civil frequency to the GPS satellites. This new frequency will decrease interference problems and further improve the accuracy corrections to the basic GPS signal. ($17 million)

Measure:	GPS Landing Approaches
Scope:	This performance measure gathers the total number of GPS Landing Approaches (published) and includes both precision and non-precision approaches.
Source:	Internal FAA tracking spreadsheet.
Baseline:	1,453 approaches have been published through FY 1998.
Limitations:	This is an output measure rather than an outcome measure. Individual use of GPS approach procedures is not tracked by current information systems. Although it may be impossible to measure the exact benefits to users, increased schedule reliability for commuters and air taxis, as well as improved access for all of general aviation will result from increasing the number of published approaches.
Verification & Validation	Productivity numbers are compared and validated monthly by FAA (AVN and National Flight Data Center).
Comment:	FAA previously tracked procedures by calendar year but has since converted to tracking by fiscal year. In addition, FAA initially tracked procedures in accordance with the Federal Register, but is now tracking by actual publication date (i.e., when available to customers). FAA is in the process of developing an automated workflow management system to rack each procedure's progress until published.

AIRPORT ACCESSIBILITY

Why We Act: The geography of the United States and the nature of its economy lead to a heavy reliance on air transportation. The DOT has helped to plan and establish a national system of airports that provides most citizens with convenient access to air transportation. The FAA conducts a variety of activities to ensure that the system of airports that are essential to national transportation does not deteriorate. For example, while some airports generate enough revenue to be financially self-sufficient, others, particularly those in rural areas, depend heavily on grants to help pay for periodic rehabilitation and improvements. Recipients of Airport Improvement Program (AIP) grants agree to develop and maintain their airports in accordance with FAA approved plans, helping to ensure the continued availability of a safe and adequate national airport system.

FAA's goal: Assist in the planning and development of a national system of airports, as identified in the National Plan of Integrated Airport Systems (NPIAS), that are geographically accessible for at least 98 percent of U.S. residents.

Special Challenges: Many alternative land uses compete with aviation for optimum airport sites. Privately owned airports are particularly at risk of being closed and converted to residential or commercial development. Smaller communities often encounter difficulty in financing the development and periodic rehabilitation of publicly owned airports.

Strategies: DOT works in partnership with state and local agencies to ensure the continued availability of a safe and adequate airport system. The principal Federal involvement is the availability of AIP grants for planning and developing airports that are included in the National Plan of Integrated Airport Systems. The FAA gives a very high priority to safety-related development and rehabilitation of airports. The FAA ensures that airport operators comply with grant conditions requiring them to continue to operate their airports for the useful life of federally funded improvements.

Activities and Initiatives in FY 2000 (including estimated obligations):

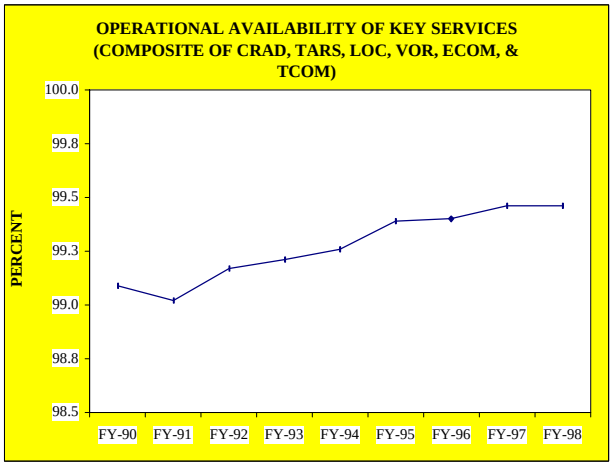
- Cooperate with state aviation agencies to update 38 state system plans.
- Issue approximately 1,000 grants for airport planning and improvement projects. ($1.6 billion)
- Ensure continued compliance by AIP grant recipients with the conditions of grant agreements regarding the maintenance and continued operation of their airports.

Measure:	Estimated percentage of U.S. population residing within a 20 mile radius of a public use airport in the NPIAS.
Scope:	The measure will be computed for existing airports currently included in the NPIAS.
Source:	VNTSC will compute the statistic annually using a current demographic data base and the geographic coordinates(latitude and longitude) of existing public use airports.
Baseline:	The goal is a performance standard, not based on a specific, historical year.
Limitations:	Authoritative updates of demographic data occur every ten years through the national census. Estimates for interim years are somewhat approximate because they rely on commercially available data bases that have been updated using estimating techniques.
Verification & Validation	VNTSC will compare results with two prior estimates and scrutinize any unusual changes.
Comment:	

OPERATIONAL AVAILABILITY OF KEY SERVICES

Why We Act: Any reduction in service availability can result in impacts to the quality and efficiency of the NAS. The magnitude of the impacts, however, varies with the type of service. For example, an enroute communications service outage typically would result in more air travel delays than a terminal communications service outage would. And, although all reductions in service availability have the potential to impact the NAS, reductions in the availability of key services generally impact the NAS much more. Therefore, sustaining or improving the availability of services defined as "key" is targeted in order to improve service delivery and minimize the impact of service outages on the quality and efficiency of the NAS.

FAA's Goal: Improve service delivery by maintaining operational availability of equipment at current levels while minimizing the impact.



Special Challenges: Ways to improve operational availability include increasing capital investment in redundancy for weak links (to prevent outages), and increasing service management operations staffing effectiveness and efficiency. Increased use of operations funding to improve NAS Infrastructure Management capabilities, however, will tend to reduce our ability to simultaneously sustain the quality of the operating NAS in the near-term.

Strategies: Invest in new equipment, replacements, or modifications to increase redundancy for weak links in service delivery systems.

Implement NAS Infrastructure Management (NIM) tools and processes to enable more effective utilization of service management operations people and resources.

Sustain or improve operational availability of key services (i.e. CRAD, TARS, LOC, VOR, ECOM, and TCOM).

Other Federal Programs with Common Outcomes: The FAA acquisition program seeks to achieve specific availability levels.

Activities and Initiatives in FY 2000 (including estimated obligations):

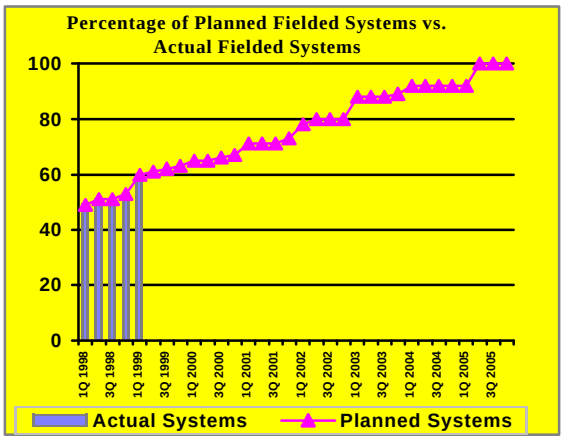
- Demonstrate first NAS Infrastructure Management System (NIMS) capability. ($8.9M F&E)
- Begin Operational Control Center activities at three locations. ($7.65M Ops)

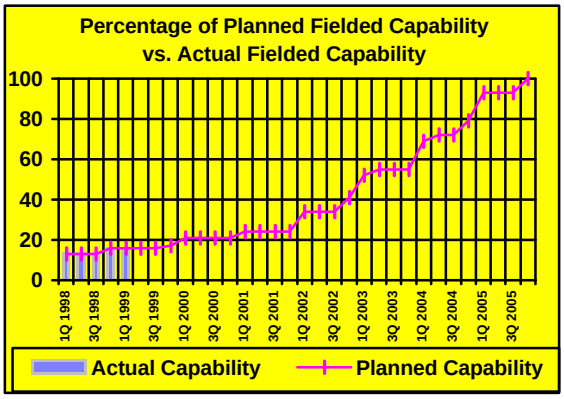
Measure:	Operational Availability of key services.
Scope:	Operational Availability of FAA's key services is the percentage of time these services are available to users.
Source:	National Airspace Systems Performance Reporting System
Baseline:	Previous three-years' moving average (FY-97/-98/-99)
Limitations:	None.
Verification & Validation	Extensive monthly audit of outage reporting data accuracy and correction of errors.
Comment	None.

DEVELOP AND DEPLOY INTEGRATED SYSTEMS

Why We Act: The FAA's mission is to provide safe, secure, and efficient air traffic movement consistent with national security concerns. NAS modernization is an evolutionary approach for moving the NAS towards Free Flight. It incorporates new technologies, procedures, and concepts intended to meet the needs of NAS users and service providers. Through the modernization program, the FAA is upgrading and replacing equipment and facilities, and developing new technologies to help improve the safety, efficiency, and capacity of the NAS. Introduction of new technologies is vital to the economic future of U.S. aviation and the ability of the FAA to meet the challenge of lowering future accident rates to near zero. NAS modernization balances the capabilities requested by users and service providers, the funding level and sources that are expected to be available for modernization, the cost to users and their ability to equip, and the FAA's ability to manage the changes needed to make modernization a reality.

FAA's goal: Put into operational service 100 percent of the integrated systems necessary to deliver the capabilities required to modernize the NAS according to the JRC approved NAS architecture.





Special Challenges: The success of NAS modernization is directly related to the amount and execution of the FAA budget. Actual budgets, which may differ significantly from the NAS Architecture Version 4.0, will affect timing of NAS modernization efforts.

Strategies: FAA will sustain consensus with the user community on NAS modernization plans to include a shared understanding of user requirements and priorities, budget priorities and fiscal reality, expected user benefits, and the user's role in modernization.

Other Federal Programs with Common Outcomes: FAA has expanded cooperation with DOD and NASA to enhance NAS modernization efforts. FAA and DOD combined strengths to make aging aircraft safer and find new applications for emerging technologies. FAA and NASA established an MOU to combine more of their long-term and applied aviation research. They also ensure DOD has an active role in the planning and integration phases of modernization.

Key Activities and Initiatives in FY 2000 (including estimated obligations):

- FAA will begin Free Flight Phase I core capability limited deployment (FFPI CCLD) to allow collaborative decision making between airlines and the air traffic control system. Capabilities include collaborative decision making (CDM), user request evaluation tool (URET CCLD), traffic management advisor single center (TMA SC) and passive final approach spacing tool (pFAST). ($409.7 million)

- Controller pilot data link communication (CPDLC) will begin a phased approach to develop en route aeronautical telecommunications network (ATN)-compliant data link services. CPDLC Build 1 and 1A will use very high frequency digital link (VDL)-2 for the air-to-ground sub-network and will provide data link coverage to aircraft at 10,000 feet and above. ($29.9 million)

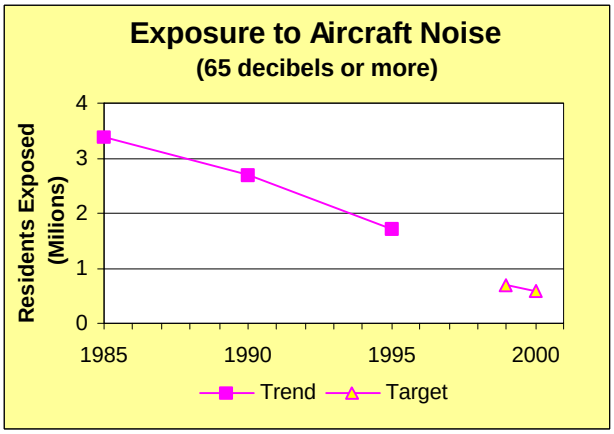
- FAA will begin deploying the Standard Terminal Automation Replacement System (STARS) and the display system replacement (DSR). ($284.7 million)

Measure:	The actual number of fielded systems and capabilities fielded versus the number planned to be accomplished by the quarter.
Scope:	NAS users and service providers require enhanced capabilities derived from new technologies and procedures to move the NAS toward Free Flight.
Source:	Joint Resource Council approved NAS Architecture
Baseline:	Baseline data accumulates capabilities defined in the NAS architecture, Version 4.0.
Limitations:	The success of NAS modernization is directly related to the amount and execution of the FAA budget. Actual budgets, which may differ significantly from the NAS Architecture Version 4.0, will affect timing of NAS modernization.
Verification & Validation	The actual number is reported from internal records. The planned number is validated by conducting structured surveys with key leaders of aviation organizations that are primary users of the NAS. Certification shall be through written response to the survey.
Comment:	

AIRCRAFT NOISE EXPOSURE

Why We Act: Public concern and sensitivity to aircraft noise around airports is high. In recent years, noise complaints have increased even while quieter aircraft technology has been introduced. This aircraft noise is an undesired by-product of our mobility, and the government acts to reduce the public's exposure to unreasonable noise levels.

FAA's goal: Reduce the number of people in the U.S. exposed to significant aircraft noise by at least 64 percent from the 1995 baseline of 1.7 million. The FY 2000 target is at or below 600,000.



Special Challenges: Much of the recent progress has been achieved by legislatively mandated transition of airplane fleets to newer-generation aircraft that produce less noise. Most of the gains from this change will have been achieved by FY 2000. The Airport Noise and Capacity Act of 1990 set December 31, 1999 as the deadline for elimination of Stage 2 (older, noisier) aircraft weighing more than 75,000 pounds. Growth in aviation activity also works against easy progress.

Strategies: DOT pursues a program of aircraft noise control in cooperation with the aviation community through noise reduction at the source (development and adoption of quieter aircraft), soundproofing and buyouts of buildings near airports, operational flight control measures, and land use planning strategies.

Other Federal Programs with Common Outcomes: FAA is engaged with NASA in joint noise reduction technology research.

Activities and Initiatives in FY 2000 (including estimated obligations):

- The FAA's Airport Improvement Program will continue to provide funds for such noise reduction activities as the soundproofing of residences and buildings used for educational or medical purposes near airports, purchase of buffer zones around airports, and noise reduction planning (est. $226 million).
- The FAA will continue to engage in noise research and assessment technologies ($1.5 million).
- FAA Air Traffic Services implements operational flight control measures to reduce neighborhood exposure to aircraft noise.
- The joint FAA/NASA report on subsonic aircraft noise reduction will be completed in FY 2000. The report will contain potential new noise reduction technologies that could be implemented in future years.
- In FY 2000, FAA will continue examination and validation of the methodologies used to assess aircraft noise exposure.

Measure:	Estimated population exposed to aircraft noise over DNL 65 dB.
Scope:	Residential population exposed to aircraft noise above Day-Night Average Sound Level of 65 decibels around the 250 U.S. airports with the greatest number of commercial jet take-offs and landings.
Source:	A statistical modeling technique (Nationwide Airport Noise Impact Model, or NANIM) is applied using the 250 largest civil airports with jet operations in the U.S. Flight activity forecasts, commercial fleet mix and population projections are developed from the Terminal Area Forecast (TAF) and Metropolitan Statistical Area (MSA) population forecasts. 1990 census data are subjected to multiple source updates as part of an international study application. FAA's Part 91 database supplies the number of hushkitted and re-engined Stage 2 aircraft. Noise contour information is derived from the FAA Integrated Noise Model (INM) and generic procedures used in the FAA Area Equivalent Method (AEM).
Baseline:	The baseline is 1.7 million in 1995.
Limitations:	No actual count is made of the number of people exposed to aircraft noise. No military or general aviation aircraft are included in the FAA's model.
Verification & Validation	The Integrated Noise Model has been validated with actual acoustic measurements at both airports and other environments such as areas under aircraft at altitude. External forecast data are from primary sources.
Comment:	

Performance Goals Linkage to Program and Financing Schedules

PERFORMANCE AREA: SAFETY

STRATEGIC PLAN GOAL: Reduce U.S. aviation fatal accident rates by 80 percent from 1996 levels by 2007.

PERFORMANCE GOALS	Reduce the fatal aviation accident rate for commercial air carriers by 12 percent from a 1994-1996 baseline of 0.037 fatal accidents per 100,000 flight hours. The 2000 target is 0.033 per 100,000 – with the reduction to be achieved in 6 key areas outlined in the Safer Skies Agenda.	Reduce the general aviation fatal accident rate from a 1994-1996 average of 1.67 per 100,000 flight hours. (Specific target to be developed by June 1999).	Decrease in the rate of air shipment hazardous materials incidents by the year 2000 from 1998 base.	By 2007, reduce by (X percent from baseline levels) the rate of airport accidents/incidents (i.e., accidents/incidents in which an aircraft leaves the pavement or in which Aircraft Rescue and Fire Fighting responds) levels that result in injury to persons or damage to aircraft. (Note: This is a new measure—data/baseline to be developed over the next year.	Reduce the number of operational errors and deviations by 10 percent from 1994 baselines. The 2000 targets are 0.486 errors and 0.097 deviations per 100,000 activities.	Experience no fatalities and injuries to the public and significant damage to property caused by U.S. commercial space transportation.	Ensure human factors issues are addressed in the acquisition and integration of 100 percent new and modified FAA aviation systems, including Free Flight Phase 1.	Reduce the number of runway incursions to a level 15 percent below a 1997 baseline of 318 incursions. The FY 2000 target is at or below 270 incursions.
Appropriation								
Operations								
Air Traffic Services					●			●
Regulation and Certification	●	●						●
Civil Aviation Security	●	●	●					
Airports	●	●		●				●
Research and Acquisition	●	●			●		●	●
Commercial Space Transportation						●		
Staff Offices								
Facilities and Equipment								
Engineering, Development, Test and Evaluation	●	●		●	●		●	
Procurement and Modernization of ATC Facilities and Equipment	●	●		●	●		●	●
Procurement of non-ATC Facilities and Equipment	●	●		●	●		●	
F&E Mission Support	●	●		●	●		●	●
Personnel and Related Expenses	●	●		●	●		●	●
Research, Engineering and Development								
System Development and Infrastructure					●			●
Capacity and Air Traffic Management Technology	●	●			●			●
Weather	●	●						
Aircraft Safety Technology	●	●						
System Security Technology								
Human Factors and Aviation Medicine	●	●			●		●	●
Environment and Energy								
R,E&D Partnerships								●
Grants in Aid to Airports								
Grants	●	●		●				●

PERFORMANCE AREA: SECURITY

STRATEGIC PLAN GOAL: Prevent security incidents in the aviation system.

PERFORMANCE GOALS	FAA's goal: Increase the detection of explosive devices and weapons that may be brought aboard aircraft. 1) X percent improvement from a 1998 base by FY 2000 in detection of improvised explosive devices and weapons in carry-on baggage with no significant increase in operational impact. 2) X percent improvement from a 1998 base by FY 2000 in detection of improvised explosive devices and weapons carried on the person with no significant increase in operational impact. 3) Increase the percentage of selected passengers' checked bags screened with explosives detection systems from a 1998 base by FY 2000 while maintaining X percent detection of improvised explosive devices. 4) Improve cargo security by an X percent increase from a 1997 base in the detection of improvised explosive devices in small packages accepted from unknown shippers by air carriers for air transportation. 5) Convene consortia at 134 airports, and provide tools and assistance to airports that voluntarily maintain consortia. Detection rates are sensitive information protected under CFR 14 Part 191. The baseline and targeted increases will be made available to appropriate parties upon request.	Increase the aviation systems' ability to sustain compliance with security requirements by X percent by FY 2000 from a 1998 base year.	By FY 2000, increase by 67 percent from a 1998 base year the number of FAA facilities accredited as fully meeting security standards.
Appropriation			
Operations			
Air Traffic Services			
Regulation and Certification			
Civil Aviation Security	●	●	●
Airports			
Research and Acquisition	●	●	●
Commercial Space Transportation			
Staff Offices			
Facilities and Equipment			
Engineering, Development, Test and Evaluation			
Procurement and Modernization of ATC Facilities and Equipment			
Procurement of non-ATC Facilities and Equipment			
F&E Mission Support			
Personnel and Related Expenses			
Security Equipment	●	●	●
Research, Engineering and Development			
System Development and Infrastructure			
Capacity and Air Traffic Management Technology			
Weather			
Aircraft Safety Technology			
System Security Technology	●	●	●
Human Factors and Aviation Medicine			
Environment and Energy			
R,E&D Partnerships			
Grants in Aid to Airports			
Grants			

PERFORMANCE AREA: SYSTEM EFFICIENCY

STRATEGIC PLAN GOAL: Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.

PERFORMANCE GOALS	Decrease System Delays:	Reduce the rate of air travel delays by 5.5 percent from a 1992-1996 baseline of 181 delays per 100,000 activities. The FY 2000 target is 171 per 100,000 activities.	Increase system capacity attributable to runways at the 25 busiest airports by 1 percent annually in the year 2000 from the baseline year 1998.	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.	Increase System Flexibility:	Increase the number of flight segments that aircraft are able to fly off ATC-preferred routes to 80 percent from a 1996 baseline of 75 percent. The 2000 goals is 80 percent.
Appropriation						
Operations						
Air Traffic Services	●	●			●	●
Regulation and Certification						
Civil Aviation Security						
Airports	●	●				
Research and Acquisition	●	●	●	●	●	●
Commercial Space Transportation						
Staff Offices						
Facilities and Equipment						
Engineering, Development, Test and Evaluation	●	●			●	●
Procurement and Modernization of ATC Facilities and Equipment	●	●	●		●	●
Procurement of non-ATC Facilities and Equipment	●	●			●	●
F&E Mission Support	●	●	●		●	●
Personnel and Related Expenses	●	●	●		●	●
Research, Engineering and Development						
System Development and Infrastructure		●			●	●
Capacity and Air Traffic Management Technology	●	●	●		●	●
Weather	●	●			●	●
Aircraft Safety Technology						
System Security Technology						
Human Factors and Aviation Medicine						
Environment and Energy						
R,E&D Partnerships						
Grants in Aid to Airports						
Grants	●		●	●		

PERFORMANCE AREA: SYSTEM EFFICIENCY (cont.)

STRATEGIC PLAN GOAL: Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.

PERFORMANCE GOALS	Increase User Access:	Increase access to the nation's airports during adverse weather conditions by publishing 500 GPS/WAAS approaches per year for the next 3 years from a prior year (FY 1995–FY 1998) baseline of 1,453 GPS approaches to date. The FY 2000 target is to complete at least 2,453 approaches total.	Assist in the planning and development of a national system of airports, as identified in the NPIAS, that are geographically accessible for at least 98 percent of U.S. residents.	Improve service delivery by maintaining operational availability of equipment at current levels while minimizing the impact.	Put into operational service 100 percent of the integrated systems necessary to deliver the capabilities required to modernize the NAS according to the JRC approved NAS architecture.	Reduce the number of people in the U.S. exposed to significant aircraft noise by at least 64 percent from the 1995 baseline of 1.7 million. The FY 2000 target is at or below 600,000.
Appropriation						
Operations						
Air Traffic Services	●	●		●		
Regulation and Certification						
Civil Aviation Security						
Airports	●		●			●
Research and Acquisition				●	●	
Commercial Space Transportation						
Staff Offices						●
Facilities and Equipment						
Engineering, Development, Test and Evaluation	●	●		●	●	
Procurement and Modernization of ATC Facilities and Equipment	●	●		●	●	
Procurement of non-ATC Facilities and Equipment				●		
F&E Mission Support				●	●	
Personnel and Related Expenses				●	●	
Research, Engineering and Development						
System Development and Infrastructure				●	●	
Capacity and Air Traffic Management Technology				●	●	
Weather						
Aircraft Safety Technology						
System Security Technology						
Human Factors and Aviation Medicine						
Environment and Energy						●
Strategic Partnerships						
Grants in Aid to Airports						
Grants	●	●	●			●

Funding Link to Agency Strategic Goals
FY 2000

	(Dollars in Thousands)		
STRATEGIC GOALS	**Safety**: By 2007, reduce U.S. aviation fatal accident rates by 80 percent from 1996 levels.	**Security**: Prevent security incidents in the aviation system	**System Efficiency**: Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.
Appropriation			
Operations			
Air Traffic Services			4,696,487.0
Aviation Regulation and Certification	667,631.0		
Civil Aviation Security		144,642.0	
Airports			50,608.0
Research and Acquisitions			183,740.0
Commercial Space Transportation	6,838.0		
Staff Offices	34,686.0	8,678.0	245,696.0
Total	709,155.0	153,320.0	5,176,531.0
Facilities and Equipment			
Engineering, Development, Test and Evaluation	51,802.0		448,276.1
Procurement and Modernization of ATC Facilities and Equipment	172,152.0	5,400.0	869,951.0
Procurement of non-ATC Facilities and Equipment	56,600.0	119,325.0	18,400.0
F&E Mission Support			268,006.1
Personnel and Related Expenses	43,745.2	21,456.8	243,885.8
Total	324,299.2	146,181.8	1,848,519.0
Research, Engineering and Development			
System Development and Infrastructure	3,057.0	397.0	13815.0
Capacity and Air Traffic Management Technology	4,000.0	0	12,000.0
Weather	9,459.0	0	6,306.0
Aircraft Safety Technology	39,639.0	0	0
System Security Technology	0	53,218.0	0
Human Factors and Aviation Medicine	26,107.0	0	100.0
Environment and Energy			3,481.0
Strategic Partnerships	568.0	568.0	285.0
Total	82,830.0	54,183.0	35,987.0
Grants in Aid to Airports			
Grants	62,400.0	9,800.0	1,528,800.0
Total	62,400.0	9,800.0	1,528,800.0